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Performance measurement systems in auditing firms: Challenges and other behavioural aspects

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# Performance measurement systems in auditing firms

## Challenges and other behavioural aspects

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### Abstract

**Purpose** – The purpose of this paper is to investigate challenges facing auditing firms in designing and measuring their performance and discusses why and how the balance scorecard (BSC) could support the auditing firms overcome such challenges. The paper contributes to the existing literature by identifying the peculiarity of the auditing firms in designing and implementing performance measurement systems including the need for sound and advanced information systems, subjectivity embedded in measuring customer satisfaction, growth and success of the firms and restrictions imposed by regulations and auditing standards for the provision of non-audit services which may increase the firms' revenues and profits to help maintain high-quality outputs. Also, the paper provided evidence for the use of non-financial measures in service industry in particular for customers and finance. The unique dilemma in the auditing firms to provide services to satisfy customers yet maintaining distance and independence from them represent an important research question requiring investigation and study.

**Design/methodology/approach** – A review of the literature for performance evaluation in general and in particular BSCs in service industries was made to identify challenges facing auditing firms when measuring their performance. Data were collected using case study approach; two auditing firms, one of the Big 4 and a medium size auditing firm with international affiliation operating in the Egyptian market were selected. Interviews, document analysis and participant observations were used in the analysis of each firm performance measurement system.

**Findings** – The paper suggests that major challenges face auditing firms in measuring their performance mainly the size of the firm and its affiliation with international auditing firm, the qualification and experience of partners and audit managers needed for the design and implementation of a BSC or similar performance measures, the resources required for the introduction of such performance measure and the peculiarity of the auditor and client relationship with the need to maintain independence and confidentiality while providing high-quality services. Although both auditing firms being studied have formal performance measurement systems, they differ in their degree of comprehensiveness. In particular, the performance measurement system of the larger firm is more elaborate than that of the smaller one and both place more emphasis on qualitative measures such as learning and growth and internal business processes than financial measures.

**Research limitations/implications** – Overall, the results have implications for understanding the performance measurement process of auditing firms in general and in particular in an emerging economy such as Egypt. The identification of the challenges facing auditing firms in measuring their performance and how the implementation of BSC can help partners and employees to overcome those challenges will add to the literature for performance evaluation in service companies. Future research should be carried to compare and assess differences between the behavioural aspects of performance measures in auditing firms and possible application of BSC in such firms and those used in services industry. Also, the practicality of implementing a BSC measures for different auditing firms should be investigated further in future research.



**Originality/value** – The research among the first to investigate the challenges facing auditing firms in designing and operating a performance measurement system and to discuss, using case studies, how a BSC could support the auditing firms to overcome such challenges. Further, the research provides insights into performance measures in auditing firms in developing economies like Egypt which are sparse since most studies have been conducted in developed economies. Also, the paper enriches the literature of performance measurement systems in service rather than the manufacturing sector especially for medium and small size firms.

**Keywords** Performance measurement, Balanced scorecard, Auditing

**Paper type** Research paper

## 1. Introduction

Business scandals seem to be occurring more often in recent years across industries stirring different questions and consequences yet one thing they share in common is pointing to the auditor for blame. Just when the US economy was to recover from the humiliations of Enron's failure in 2001; the auditing profession received yet another blow with the failure of Lehman Brothers. The classical response of the profession is the tightening of standards around auditing firms to help them improve their performances to uncover fraud. For example, in the USA, Congress itself intervened and issued Sarbanes Oxley Act in 2002 following Enron's failure (Arens *et al.*, 2009).

If the aim is to enhance auditing firms' performance then perhaps more attention should be directed towards their inputs as well as the output they deliver. Nonetheless, auditing standards are more concerned with the quality of audits produced by firms rather than how they actually manage and control themselves. Despite the importance of performance measurement, yet auditing standards give little attention to how firms should be managed. According to professional auditing bodies, audit firms are successful enough if they perform "quality" audit. For example, International Standards on Auditing (ISA 220), adopted by several nations, require auditing firms to establish a system of quality control providing reasonable assurance that firms and their personnel comply with professional standards and regulatory requirements issuing an appropriate audit report. Nonetheless, auditing firms are still in need of a system to measure its own performance not just the quality of its "output". Standards such as ISA220 are only centred on the internal processes and the human resource management of employees neglecting to incorporate a more robust and integrated performance measurement system in such a competitive and dynamic environment.

The balanced scorecard (BSC) is a strategic performance measurement system developed by Kaplan and Norton (1992). The BSC has attracted academic as well as practitioners' attention with the recent development of the organizational world. Presentations in conferences and seminars, books publications including case studies of BSC applications and software development for its use in business were the trend for the last century (Sharman and Kavan, 1999). A survey undertaken in USA found that 60 per cent of the fortune 1,000 firms have implemented some models of the BSCs (Malmi, 2001). The BSC aims at translating an organization's strategy and mission into a set of performance measurement indicators that the organization aims to achieve. The BSC is also seen as containing outcome measures and the performance drivers of outcomes, linked together in cause-and-effect relationships, and thus aims to be a feed-forward control system (Norreklit, 2000). The BSC, therefore, is seen as both a strategic measurement system as well as a strategic control system which can help align departmental and personal goals to overall strategy. It is divided into the four perspectives comprising financial and non-financial measures. Focusing on such

multi dimensions of performance prevents sub optimizing and achieving a measure at the expense of another in accordance with the principle “what gets measured gets managed” and the rest ignored (Kaplan and Norton, 1996a). For instance, audit firms should accept only those engagements it could conduct profitably if not it may want to save costs via reducing time and efforts spent leading to audit failures (Ziegenfuss, 2000).

In fact, the BSC came about because firms assessed their performance using only financial measures disregarding non-financial ones whereas it seems that in the case of auditing standards they actually only consider some of the non-financial measures disregarding their customers or finances. Further, with no emphasis on customer satisfaction and competition the medium and small size auditing firms would not be able to compete with the Big 4 (Cravens *et al.*, 2010; Kaplan and Norton, 2001; Lipe and Salterio, 2000; Mooraj *et al.*, 1999). Further, auditing is governed by auditing standards. Any performance measurement system should consider not only factors affecting the performance of the firm and the attainment of its mission but ensure they are in compliance with applicable auditing standards. Therefore, since performance measurement systems including BSC is a flexible measurement tool whereas auditing on the other hand is a restrictive profession a number of research questions are addressed to identify, using case studies, challenges facing this peculiar profession.

This research aims at addressing the following questions:

*RQ1.* What are the challenges facing auditing firms in designing and applying performance measurement systems?

To answer this research question, the researchers used case study approach in two Egyptian auditing firms, one of the Big 4 and another medium size firm with international affiliation. These audit firms were studied in relation to their performance measurement systems providing insights into the nature of such systems implemented. Challenges and difficulties facing these peculiar professional firms are identified based on the results of the interviews made with partners, audit managers and quality control seniors and the analyses of differences in the design and operations of measurement systems in such firms. Also, the understanding of the nature of performance systems actually used by auditing firms would help the process of introducing measures for improvement and better development of such systems:

*RQ2.* Is the BSC a valid strategic management control tool in auditing firm? Are targets set for measures?

The research aims at discussing how a BSC in an auditing firm would help partners assess the performance of their firms by maintaining a monitoring internal process by which the firm can control its activities not only to provide high quality of its services but also to ensure the best use of the firm's available and usually limited resources. The answer to this research question would help understand the argument made by Malmi (2001) that BSCs have been developed independently of the budgeting process to help control a company's activities as part of its performance management system. Malmi (2001) found that budgeting has long served as the core of the control system in most companies. Targets can be set and performance measured with the aid of the budget. Malmi (2001) indicated that after the introduction of BSC in Finnish companies' logistics; the whole organization became interested in the follow up and improvement of BSC component. He found that delivery reliability and warehouse turnover have improved and more topics were discussed in board meetings including four or five

measures of BSC new ones such as control, planning and know how issues. Similarly, Kaplan and Norton (1996a, pp. 247-248) argue that in most organizations the strategic planning and budgeting processes were separate, but “strategic planning and operational budgeting processes are too important to be treated as independent processes [...]”. Malmi (2001) findings confirmed Kaplan and Norton argument that control by budgets has changed to control by BSCs in many Finnish companies.

The research among the first to investigate the challenges facing auditing firms in designing and operating a performance measurement system and to discuss, using case studies, how a BSC could support the auditing firms to overcome such challenges. Further, the research provides insights into performance measures in auditing firms in developing economies like Egypt which are sparse since most studies have been conducted in developed economies. Also, the paper enriches the literature of performance measurement systems in service rather than the manufacturing sector. Large institutions and their prevailing practices have been thoroughly investigated yet comparable studies in medium and small size firms are lacking (Hudson *et al.*, 2001).

This research paper is composed of six sections. An introduction highlighted the objectives, research questions and contribution of the research. The second section reviews the literature associated with performance measurements systems identifying the challenges and behavioural aspects facing an auditing firm. The third section explains the nature and objectives of the BSC as a performance measurement tool. The fourth section discusses the research methodology. Discussion of the various case studies are presented in the fifth section providing how the challenges and behavioural aspects shaped audit firms measurement system and preliminary investigation of how the BSC could be used to mitigate the challenges and behavioural aspects facing auditing firms, in particular, in developing countries. The final section discusses the research conclusions and recommendations for future studies.

## 2. Performance measurement systems

Performance measurement has spurred considerable interest and attention in the last two decades with thousands perhaps even millions of articles and researches conducted in the area (Abdul Khalid, 2000; Johnston *et al.*, 2002; Neeley, 2005; Scapens *et al.*, 2003; Taticchi *et al.*, 2010; Yazdifar and Tsamenyi, 2005). The World Wide Web has over 52 million references on the topic with over 50 web sites dedicated to it not to mention the number of books and conferences organized; the performance measurement conference of 2004 presented 94 papers citing 1,246 articles and books (Marr and Schiuma, 2003; Marr and Neely, 2001; Neely, 1999; Taticchi *et al.*, 2010). While performance measurement has been widely discussed yet few attempts have been made to define it. Perhaps the most commonly quoted definition is that of Neely *et al.* (2002, p. xiii) “The process of quantifying the efficiency and effectiveness of past actions”. Cross and Lynch (1992, pp. 20-23) state that performance measurement is “the single most powerful tool to ensure success of business strategies” and that “setting and attaining a few key performance measures will help ensure that all levels of the organization stay on track and pull together behind the corporate engine before competition beats them to it”. A number of other studies highlighted such importance (Neely, 1999; Peter and Waterman, 1988; Sharma *et al.*, 2005; Simons, 2000; Sousa and Aspinwall, 2010).

Other research studies discuss the question of how to measure performance rather than why measures performance. As Kaplan (1984, p. 414) puts it “choice of appropriate performance measures is an art that must be practiced in conjunction with strategic

goals of the firm and in close communication with rapid changes occurring in the firm's processes". Traditionally, firms measured performance only financially in terms of bottom line result: profits. Emphasis was mainly on cost reduction and gaining economies of scale thus prominent measures of cost, particularly conversion, included: budgets, standard costing, CVP analysis, unit cost, direct material and labour costs per hour. (Fitzgerald, 2007; Fitzgerald and Brignall, 1991; Horngren *et al.*, 2005; Johnson and Kaplan, 1987; Simons, 2000). However, drastic changes occurred in the business environment leaving those traditional measures irrelevant and outdated, particularly the shift from the industrial age of the second wave to the information age of the third wave making companies compete on how smart rather than how big they are (Hope and Fraser, 1997). This resulted in numerous changes including globalization, automation, competition, shorter product life cycles and others (Horngren *et al.*, 2005; Bromwick, 1990; Gordon and Naryanan, 1984; Johnson and Kaplan, 1987; Simmonds, 1981; Hoque, 2003; Womack *et al.*, 1990; Yazdifar and Tsamenyi, 2005; Zimmerman, 2009).

Firms realized that competing in the information age requires emphasis on value rather than price and competing on the basis of differentiation, quality, customization and rapid response. Those non-financial measures forced firms to abandon relying only on financial figures and supplement them with contemporary ones. Profits become by-product of success, means rather than ends (Fitzgerald and Brignall, 1991). In order to overcome the problems of using financial measures, strategic measures are required to indicate the company's future earnings potential. All efforts in recent years were directed at constructing a system of non-financial measures linked to strategy (Kaplan and Norton, 1992, 1996a; Grady, 1991; MacNair *et al.*, 1990). For example, Grady (1991) studied how the strategic objectives of a company can be broken down into critical success factors and critical actions. Also, MacNair *et al.* (1990) presented a performance pyramids where the management strategic vision is broken down into financial and non-financial measures at lower levels within the company. Ittner and Larcker (2003a) found that companies adopting non-financial measures and established a causal link between those measures and financial outcomes realized higher return on assets and equity over a five year period. However, the question remains about which non-financial measures to use in performance evaluation out of hundreds of such measures. Malmi (2001) discussed the use of BSC as a strategic management system to set goals, compensation, resource allocation, planning and budgeting, and strategic feedback and learning including altering whenever necessary the course of action followed by the management of the business.

Criticism to financial measures focused on the historical nature revealing on company's past actions but nothing about its future alertness (Kaplan and Norton, 1996b; Merchant, 1985; Maciariello and Kirby, 1994). Accounting figures do not present the elements which may result in good or poor future financial results (Anthony *et al.*, 1984; Merchant, 1985; Eccles, 1991; Maciariello and Kirby, 1994). This is certainly true for professional services such as auditing practices where partners in auditing firms aim at achieving quality and fair presentation of financial statements to maintain their reputation and promote their businesses. Auditing standards do not give that much attention to how audit firms measure and assess their very own performance. They are concerned with what the firm develops rather than how it develops its own performance measurement. Research too focused extensively on the processes and procedures auditing firms undertake to maintain the quality of their output yet limited research had been dedicated to their inputs and internal management, thereby creating

a research gap. As Porter's (1980, 1985) indicated, the essence of formulating a competitive strategy lies in relating a company to its competitive forces in the industry in which it competes. This in turn would require that the strategy be based on the market segments to be served followed by the determination of the various internal processes which the company needs to excel in and compete fiercely especially if it is to provide on its value propositions to clients in the market segments targeted.

Thus, auditing firms should adopt a multidimensional approach in assessing their performance if they are to be competitive and innovative. Unfortunately, such measurement task is not easy to implement as auditing firms are faced with the unique dilemma of developing services to satisfy their customers yet maintaining distance and independence from them. The entire value of their auditing services rests on the assumption that they are independent third-party evaluators of how fair are the financial statements of their clients whom they should not be viewed as having any associations or influences from them. Further, auditing is a heavily regulated industry (Kinney, 2005). The development of a performance measurement system in such peculiar profession should consider not only the elements affecting the performance of the firm and the attainment of its quality objectives and reputation but ensure they are in compliance with applicable auditing standards. For example, auditing standards prohibit performing non-audit services to certain clients which could have led to additional revenues and profits for the firm. These revenues and profits would provide additional resources to partners and management to develop and maintain high quality of services provided. Such restrictions on maximizing revenues and profitability may affect the ability of auditing firms to maintain the quality of their services while having a significant portion of their services revenues lost. To ensure adequate resources are available to maintain audit quality and partners resist the pressure to accept unlawful non-audit services, auditing firms must have a performance management tool by which they can provide their services with the most efficient use of their resources. A performance measurement system should consider such restrictions and incorporates them.

Moreover, to be able to assess their performance, auditing firms need sound and advanced information system with some tools to help them perform their audit with required quality such as expensive programs such as ACL and IDEA. The restrictions imposed on audit firms to provide non-audit services to their clients may reduce the resources available for such firms to implement such information system giving priority to audit tools which are considered more important for achieving the desired quality of their services. This is especially true for small and medium size audit firms with their limited number of clients and resources. Also, the assessment of the employees' performance in auditing firms would be a challenging task. The assessment of the quality of the audit service is a group task rather than an individual one where the issuance of the audit opinion is the result of the efforts of all members of the audit team. This peculiar nature of the audit service would make the assessment of individual auditor, audit supervisor and manager a difficult task. Non-financial and subjective measures such as the proper implementation of audit standards, ability to identify misstatements and efforts dedicated to the performance of the audit services are considered important in performance measurement systems in audit firms. Thus, it is important in those professional firms that more emphasis should be placed on qualitative measures such as learning and growth, internal business process than financial measures. As a result of such qualitative measures, rewards to be received by employees are expected to be tied to measures of the performance systems.



Although extensive research has been undertaken for performance measurement in manufacturing sector nevertheless differences exist within the services sector which prohibits smooth transfer of concepts (Johnston, 1988). Performance measurement is more challenging for services. For instance, services are intangible thus difficult to measure and control. Further, the output is heterogeneous varying across employees and customers hindering consistency in evaluations. Moreover, the production and consumption of services occur simultaneously meaning customers are present at the production time. Consequently some services cannot be measured, inspected or counted prior to revenue earned neither can wastes be measured and eliminated. Similarly, if customers are not satisfied with the revenue process itself that they see they may not be satisfied with the final output. For example, if clients do not get some value for money in the management letter prepared by external auditors, they may not comprehend the important role played by the assurance service. Although this may be perceived as a threat, however, it also enables the opportunity of cross-selling to customers and the possibility of gaining instant feedback (Fitzgerald and Brignall, 1991). In the following section, the researchers will discuss the nature, importance and viability to use BSC in various industries and in particular auditing services.

### 3. The BSC

The BSC is a multidimensional tool that integrates financial and non-financial strategic measures necessary for survival and sustaining competitive advantage in the industrial age. It starts with an entity's long-term strategies and translates them into a set of objectives and key performance indicators for each perspective continuously monitoring progress therein (The Balanced Scorecard Institute, 2010; Kaplan and Norton, 1992, 1996b; Cohen *et al.*, 2005; Sousa and Aspinwall, 2010). The BSC contains outcome measures and the performance drivers of outcomes, linked together in cause-and-effect relationships (Kaplan and Norton, 1996a, b, p. 31, 53) making the performance measurement system a feed-forward control system. Moreover, the BSC would align departmental and personal goals to overall strategy (Kaplan and Norton, 1996a, p. 10). In other words, the BSC is intended to provide the means for putting company's strategy into action.

"The scorecard addresses a deficiency in traditional management accounting systems: their inability to link a company's long-term strategy with its short-term action" (Kaplan and Norton, 1996a, p. 75). The BSC is mainly applied at business unit level (Malmi, 2001). It is often at business divisions or departments that competitive strategies are achieved. The findings of Malmi (2001) study confirmed that scorecards in Finnish companies are developed at lower levels of organizational hierarchies.

BSC is very popular as it has a range of different uses (Norreklit, 2000). It is composed of four major areas: the financial, customer satisfaction, internal business process and learning and growth (Kaplan and Norton, 1992, 1993, 1996a; Horngren *et al.*, 2005; Cohen *et al.*, 2005; Hoque, 2003; Zimmerman, 2009). As stated by Norreklit (2000, p. 67) "The crux of the balanced scorecard is the linking together of the measures of the four areas in a causal chain which passes through all four perspectives". Kaplan and Norton (1996a, p. 31) see the measures of organizational learning and growth as the drivers of the measures of the internal process and similar drivers are identified based on the above model. Norreklit (2000) investigated in details the nature of the cause-and-effect relationships in the BSC as described by Kaplan and Norton studies. She indicated that there is no causal relationship between measures related to the four perspectives of the BSC. She argued that the influence among measures in BSC is not unidirectional, and rather than cause-and-effect relationship, but is more of interdependence. There is

interdependence relationship between the growth and debt equity ratio (Donaldson, 1984) and between customer satisfaction and company image (Kaplan and Norton, 1996a). Norreklit claimed that Kaplan and Norton confuse cause-and-effect relationships with logical relationships and means ends (also called finality) relationships (see also Norreklit and Mitchell, 2007). Finality relationships, however, are different from the cause-and-effect relationships and are concerned with the means for achieving particular ends "Whereas cause-and-effect is a statement of an empirical relation, finality is concerned with the ways in which actions might be taken to achieve a particular outcome" (Jazayeri and Scapens, 2008, p. 51). If relationships are based on finality, Norreklit argued that the concept of coherence becomes important in designing performance management systems "Whereas causal relations imply a form of consistency, which refers to the individual element within the (performance measurement) system, coherence relates to the alignment and integration of the system as a whole" (Jazayeri and Scapens, 2008, p. 51). Thus, instead of viewing the relationships in BSC as a causal one between financial measurement, it may be useful to establish coherence between various measurements. Norreklit (2000, p. 83) confirmed that an action is coherent if the actions used and the means are appropriate with respect to the intended end: "If there is a lack of coherence, then the conditions for reaching the targets are insufficient or not optimal. The lack of coherence may be so significant that a result is not obtainable". Thus, the notion of coherence focuses attention on the wholeness of the system. This does not suggest that causal relations are unimportant, but we need to look beyond individual cause-and-effect relationships.

Just like the BSC is multidimensional, its benefits too are multi-fold justifying its worldwide popularity. It links the performance measures with business unit strategy in a way which may reduce conflict among managers and their subordinates. BSC promotes a more holistic approach to performance evaluation (Wong-On-Wing *et al.*, 2007). In a BSC, strategy is translated into operational terms through strategy maps which present the cause-and-effect relationships both within and between the four perspectives of the scorecard. Management can attach rewards and incentives to the various performance measures and the daily operations can be linked with the strategy. Strategy maps and leading and lagging indicators represented in the four perspectives of the scorecard will help to communicate the strategy down the company. Similarly, in assessing the implementation of the business value scorecards (BVS) in a service company, a performance measurement tool which contained five key values (BSC four measures and partnership) and evolved over an extended period of time, Jazayeri and Scapens (2008, p. 57) noted "Consequently, in late 1994, a culture change project was adopted to restructure the operations of BAE by creating teams, sharing information, and delegating responsibility and accountability all the way down the hierarchy. As such, the company was moving from a privatised bureaucratic model of organization to a task-driven organization in which what needs to be done governs who works with whom and who leads". According to Jazayeri and Scapens (2008), the application of BVS contributed to recent success of BAE, a UK aerospace company.

Kaplan and Norton (1996a) recommend that firms may identify strategies based on the firms core competences, based on which firms identify their market segments. Such a process, in Kaplan and Norton view, would not affect the BSC, as it is a strategy implementation tool. They also emphasized the benefits of the BSC as not only a strategic measurement system but also a strategic control system clarifying and gaining consensus about designed vision and strategy, align departmental, divisional and personal goals to strategy, linking strategic objectives to long-term targets and

annual budgets, determine and finally obtaining feedback to learn more about strategy for improvement and development of better actions and decisions. The establishment of such control system would provide the right conditions for discussion and debates and help to motivate employees to gather needed information away from the usual business routines and channels (Simons, 1995, p. 96). In establishing such system, management must assess at all levels of the organization whether the strategy is tenable. Kaplan and Norton (1996a, pp. 251-252) recommended that “the measures of the designed balance scorecard should form the basis of interactive control and double-loop learning”.

Kaplan and Norton (1996a) consider the BSC as the culmination of a process which starts from the top management’s strategic vision of the business, which is used to develop the performance measures used to communicate strategy down the organization to achieve success in its implementation. They warned top management not to force strategy on lower level management but should emerge from within the organization. This may require that the divisional managers share in the development and implementation of the strategy and its measures throughout the organization. De Hass and Kleingeld (1999) suggest that a system of strategic dialogue through which performance measures are formulated through continuing dialogue within the company about the nature of the leading and lagging indicators. This strategic dialogue would result in organizational learning and strategic development (Jazayeri and Scapens, 2008). Moreover, Wong-On-Wing *et al.* (2007) stated that divisional managers (rates) may ignore the BSC if they believe it to be totally subjective, unfair or irrelevant to their performance evaluation.

Despite its alleged popularity yet some research studies show the contrary. For instance, the French shows limited interest in the concept due to their implementation of the French Tableau de Board (Bourguignon *et al.*, 2004; Epstein and Manzoni, 1997) while only 26 per cent of the most important publicly traded firms in Switzerland, Germany and Austria adopt it with the majority applying only a partial version of it (Speckbacher *et al.*, 2003). Malmi (2001) using a series of semi structured interviews found that the idea of linking measures together on the cause-effect relationships was not well understood by early adopters (i.e. top and senior divisional managers) of the BSC. Further, there has been documented implementation failures for BSC leading firms to discard it all together or considered it as a static rather than dynamic owing to over emphasis on financial measures thus tipping the “balance” excessive measures making firms “drown in data” collected (Neely, 2003; Norreklit, 2000). Also, other criticism of the BSC included not setting the right performance targets, casual links between drivers including strategy and outcome measures are sometimes overlooked due to laziness or misconception that they are self-evident, inability to agree on a strategy to help the development of a BSC, inefficient implementation by management, measuring performance incorrectly using outdated and traditional models such as surveys, inability to quantify qualitative results, inability to monitor the competition or technological development, no continuous observations of competitors actions and results, delay in feedback or time consumed setting it up and improper communication of BSC objectives to lower level management (Ittner and Larcker, 2003a; Malmi, 2001; Malina and Selto, 2001; Olve *et al.*, 2004; Pforsich, 2005; Dent, 2005; Ho and Mckay, 2002).

Additionally, some researchers are concerned with the lack of evidence supporting the general hypotheses that BSC leads to financial improvement (Chenhall, 2005; Brignall, 2002; Norreklit, 2000, 2003; De Waal, 2005; Hendricks *et al.*, 2004; Cohen *et al.*, 2005) and some were successful in finding that the BSC shows no connection with economic

performance. Moreover, BSC is incomplete failing to consider other stakeholders beyond customers such as competitors, suppliers, government, regulatory bodies, community or the environment (Brignall, 2002). Kaplan and Norton's (1996a, p. 34) responded to such concern "no mathematical theorem exists that four perspectives are both necessary and sufficient" meaning firms are free to add or delete perspectives as they see fit.

Based on the above discussion of the nature, components and use of the BSC, such measurement tool would help auditing firms integrate both financial and non-financial measures into their performance assessment. It helps to assess how audit objectives are achieved in audit teams and other departments' activities. It show the way for auditing firms to develop audit plan and level of risks at lower level management (i.e. audit team levels) before presenting such plans and risk assessments to senior auditors and partners. The coherent and interdependent relationship between the four measures of BSC would motivate all management levels in an auditing firm to have a constructive dialogue "Brainstorming sessions" for establishing audit objectives and strategies. Management in an auditing firm are advised to use the dialogue to encourage employees and auditors to undertake a continuous search process to uncover misstatements and opportunities for quality improvements as well as creating a network through which information about audit plans and audit results would be communicated and monitored within the firm's goals and strategies. Such objectives and strategies might be modified, without sacrificing the quality of the audit as per auditing standards, based on the evaluation of the clients' satisfaction. However, there are challenges facing management in an audit firm to link rewards with firm strategies and objectives as the provision of the audit services is the result of cumulative efforts of all members of the audit team. It is highly subjective and judgmental for the audit partners and quality control managers to assess the performance of each auditor within the audit team for a specific audit engagement. The BSC in an audit firm would help to achieve an effective control system as it would provide the right circumstances for discussion and debate as well as motivate auditors, supervisors, seniors and audit partners to gather needed information independently from the traditional and usual business channels.

Finally, audit firms are always under pressures to provide new services related to accounting, taxes, corporate finance, corporate governance and all types of restructuring with the aim to continue to compete in very competitive business market especially from the medium and small size audit firms. This is certainly an important challenge for such professional firms giving the limited financial and human resources and restrictions imposed by auditing standards and local regulations.

#### 4. Research methodology

The current research is a mix of both descriptive and exploratory analysis. It is descriptive in the sense of describing what performance measures are used in two Egyptian auditing firms identifying challenges facing such firms in the design and operations of such measures then exploratory when investigating the viability of using a BSC framework given the regulatory environment governing the audit services and its outputs (Robson, 2002; Saunders *et al.*, 2007; Brown, 1998; Otley and Berry, 1998). Robson (2002, p. 178) defined case study as: "strategy for doing research which involves an empirical investigation of particular contemporary phenomena within its real life context using multiple sources of evidence". Yin (2003) highlights that a case study copes with technically unique situations in which there will be several issues of

interest more than data could point to. Case study explored and gained an in depth analysis of performance system across the two studied auditing firms. It enabled the researchers to get closer to the issues and understand the practical application of the performance systems better than any other approach would have. Additionally, it supplied a sense of reality about the performance systems in actual situations showing the peculiarity and special characteristics embedded in audit practices. A number of techniques have been identified as suitable for the current research characterized with being qualitative, aiming for exploratory and descriptive purposes and adopting case study approach, namely, interviews, documentary analysis and participating observation (Collis and Hussey, 2009).

#### 4.1 Interviews and participant observation

The research was conducted using both semi and unstructured interviews at various stages of the research (Saunders *et al.*, 2007). The interviews were conducted in summer 2010. The authors intended to interview partners and quality assurance managers in many auditing firms in Egypt but found that most of these firms consider information about performance measurement strictly confidential and unique to their business success. Thus, interviews were limited to two auditing firms with international affiliation which agreed to provide the required information about their performance management systems. Interviews with the advisor of the chairman of the Big 4 and the quality control manager of the medium-sized audit firm were useful for generating their opinions to refine and adapt the literature about performance measurement for auditing firms. This allowed for applying standardised questions equally to both firms, highlighting differences between them, while at the same time requesting any additional information needed. Questions asked were developed from issues arising in the literature and refined based on insights from the pilot testing. They concentrated on the type of performance measurement system each firm is applying and the components of such system. Unstructured interviews were used with the quality control manager, two executive partners and four audit managers and supervisors of the medium-sized audit firm to understand and assess the process by which those parties ensure clients' satisfaction, internal process and measures applied within the firm concerning innovation and introduction of latest technology. The researchers recorded all interviews, clearly explaining to the interviewees the purposes and benefits of the research to them and collecting as much information as possible during the interviews where some interviews extended beyond two hours at the interviewee's consent.

Observation entails the systematic observation, description, recording, analysis and interpretation of people's behaviour (Saunders *et al.*, 2007). Observation could be divided into structured and participant. Structured is better suited for quantitative research and measuring the frequency of actions. Participant is where the researcher is "immersed in the research setting" (Delbridge and Kirkpatrick, 1994, p. 37) enabling the researcher not only "observe what is happening but also feeling it" (Gill and Johnson, 2002, p. 144). In the current research, the researchers were truly "immersed" in the setting enjoying the chance to observe the advisor to the chairman, the audit partners, the quality control manager and audit supervisors at work, observing how they measure their performance and how the employees fill in the required documents and hand their work.

#### 4.2 Documentary analysis

Most organizations prepare a wide variety of documents some of them internal including organizational charts, minutes of meetings, memos, management reports [...], etc., and

others external such as annual reports, press releases, shareholders report [...], etc. The research utilized organizational and virtual online documents in both their forms internal and external. The above documents were already prepared for a purpose other than at the researchers' request becoming secondary data in a sense. This offers the merit of eliminating any reactive effects thereby avoiding validity concerns.

The firms' CVs, web sites and brochures handed to clients built the background for both auditing firms. Internal documents analyses were useful in understanding and describing the performance measurement systems adopted in both firms. If the firm already prepared documents to measure a specific element within their performance measurement system including BSC and considered it important then this provided direct indication to the practicality of such element. Moreover, virtual documents such as firms' web site and online information were used to triangulate some of the information found in the printed records. Problems faced with documents include the time consumption and frustration to research them, skilful interpretations required to understand them and access to confidential documents may be denied (Bryman and Bell, 2007). However, both firms were generous enough and interested in the topic to allow deep and free access into the records including those usually marked as confidential.

## 5. Challenges facing auditing firms in measuring their performance

### 5.1 Performance measurement in the Big 4 audit firm

5.1.1 *Awareness of measurement systems including BSC.* Despite the Big 4 audit firm advisor possessing full awareness of the importance of performance measurement systems and BSC concept yet the BSC per say is not implemented. He stated, "Each and every element in the BSC is individually measured owing to its importance specifically in such a big firm. Audit firms consider their major assets are people, knowledge and clients, people use knowledge to serve clients who provide the financials and reputation that stimulates growth, which in turn provides the capability for acquiring new people, increasing their knowledge and transferring this knowledge to clients; it is a never ending cycle needing constant monitoring". A similar argument has been presented by Eccles, (1991). Although the advisor agreed with the importance of BSC yet in terms of practicality he notes "BSC is not for all firms. Some measures would not be adequately measured, if any, by medium or small sized firms lacking sound information systems to record and measure the various elements. Perhaps only 6 or 7 audit firms in Egypt could enjoy adopting such approach" (see for instance, Sousa and Aspinwall, 2010; De Waal, 2005 for similar observations).

5.1.2 *Learning and growth.* 5.1.2.1 Employee capabilities. The advisor to the chairman of the Big 4 confirmed that the firm fully supports the need for skilful employees, predominantly in a professional occupation such as auditing, continuously developing their skills through training (as prescribed by ISA 220). Qualification of professionals are measured in terms of international certificates received, average years of audit experience and calculating percentages of qualified professionals relative to the less qualified ones. It accentuate recruiting highly specialized individuals evidential from experience requirements in job advertisements it publishes in the most widely circulated daily newspapers in Egypt; particularly that the firm divides itself according to lines of business necessitating exceedingly experienced professionals in every line. "We advertise in one of the top newspaper in the country requesting application from all graduates, qualified and experienced candidates to apply for most of the audit vacancies [...]. We receive thousands of applications from all over Egypt and the process of evaluating

applications takes usually not less than a month before preliminary interviews are made and applicants set for written tests”, commented the advisor to the chairman.

Moreover, the firm considers training a vital element and has a strict policy of requiring a minimum of 20 training hours annually and a minimum of 120 hours within three years to be completed by every employee. Detailed training log is kept for every employee, including partners, specifying training hours attended, contents received and name of instructor(s). Such log is also used by managers in recommending and evaluating training needs of subordinates.

5.1.2.2 Employee motivation and satisfaction. The Big 4 audit firm prides itself on being the “employer of choice” where people aspire to work there. It is very well known and respected that all stores and schools nearby describe their address as being “where that firm is”. A system called “dialogue” is executed as a record between management and staff recording everything such as whether they are satisfied or not, if they encounter any problems, complaints, suggestions [...], etc., but no “score” is calculated. This is in line with De Hass and Kleingeld (1999) and Jazayeri and Scapens (2008) observations. Employees are welcomed to contribute suggestions in a suggestion box nonetheless no employee actually did. Even if employees did in fact provide suggestions the firm would still not be interested in calculating percentage of those actually implemented or how many are empowered to “manage quality” since all are welcomed and encouraged to show concerns for quality not necessarily through the box. Employees are also motivated through the firm taking ideas from bottom line to top managers either in a written or spoken form not necessarily in a formal way with the understanding that employee satisfaction enhances performance. “Meetings are held on a weekly basis between partners, managers and auditors to discuss problems faced during the week especially those affecting financial statements and decisions are taken including direct contact with top management of the client to solve and discuss these problematic issues”, explained one of the partners. The firm’s approach coincides with suggestions made by Simons (1995), Wong-On-Wing *et al.*, (2007), Kaplan and Norton (1996a) and Norreklit (2000). Every employee is appraised monthly, quarterly, annually and after every engagement on factors such as skills and behaviour. Every employee is asked to appraise their own self followed by the appraisal of their assigned performance manager to validate it. Since auditing is team effort a proportion of compensation is based on individual appraisal and another on that of the team as a whole.

The Big 4 audit firm disapproves of the use of turnover rate as an indicator of employee satisfaction in a competitive labour market like Egypt where there is visible trend of high turnover associated with middle managers. “They have experience, still young and bilingual, a catch for any firm particularly in the Gulf areas therefore we try to keep them in using generous compensation packages and fringe benefits. An employee may be staying with me because he needs the money or can’t find another job not because he is happy in here” explained the advisor to the chairman of the Big 4. On the other hand, the firm recruits a number of fresh graduates each year thus the number of staff stabilizes and appears constant yet its mix is moving more towards fresh graduates and less towards middle managers. Nonetheless, headquarters oblige annual reports on numbers and costs of hiring, turnovers, training [...], etc., to be prepared.

5.1.2.3 Information system capabilities. “A fundamental resource to any audit firm is the information system or ‘library’ it holds conveying information required for effective auditing” stressed the advisor of the Big 4 firm. The firm sets up sophisticated information system containing the company’s files and records, highly secured customer

database, a library holding up to date information on auditing standards, regulations, Egyptian and International laws, auditing models and techniques, references and any other information deemed necessary for employees to perform a high-quality audit. In addition, state of art electronic auditing tools such as computer assisted auditing tools (CAATs) is implemented (as explained by Gray and Manson, 2007). The advisor to the chairman confirmed the importance of such system for the success of any performance evaluation systems (see observations made by Malmi (2001) and Jazayeri and Scapens (2008) when they assessed BVS for UK aerospace company).

5.1.2.4 Growth. Previously, the Big 4 audit firm measured its growth using the number of customers or total revenues received but now adopts a principle of “what is important is not to be filled with muscles but to be healthy” meaning quality should supersede quantity; having profitable customers supersedes a large client base. Accordingly, customers’ numbers have been declining over the years owing to discontinued operations with unprofitable ones. Every quarter, the managing partner presents to the executive partner the results of each audit group in terms of revenues matched against direct costs to ensure it is “real growth” not just increase in clients with no increase in bottom line, a concept the firm describes as “over sales”. This figure is compared with budget and last year’s results identifying any problems such as if a client sued the firm, staff problems occurred or a partner is unhappy [...], etc., which could affect firm’s growth. In addition, it measures its ranking with respect to the other Big 3 audit firms operating in the Egyptian market using the internationally agreed upon measure “total billings” received by each of the Big 4.

Further, time to develop new products is critical to growth of firms (Kaplan and Norton, 1996a). Some services are directly prescribed by headquarters taking the firm virtually no time to develop. However, the firm adopts a principle “serve all clients from the time they start thinking of investing in Egypt till they liquidate” for example, helping in issuing work permits, developing marketing studies, feasibility studies [...], etc., even though such services are not accounting per say. More than six new services within the last two years only were introduced by the firm (i.e. 2009 and 2010). One of which is for instance risk management for banks headed by a French manager employed specifically for this purpose to provide customers with services they specifically asked for yet again it values the quality (measured in terms of net revenues) of innovated services as opposed to their number. Moreover, the firm ensures any new services offered are conforming to independence standards since the provision of some service to audit clients such as bookkeeping are prohibited whereas others are allowed only if the audit committee agrees (see Gray and Manson, 2007; Arens *et al.*, 2009).

5.1.3 *Internal business process.* The advisor to Big 4 audit firm indicated that internal business process is measured through effectiveness and efficiency. First, “Effectiveness is viewed as the ability to deliver high quality audit with an appropriate report”. This is assessed with reference to the detailed documented working papers describing every single step of the audit and mandatory to be prepared in both manual and electronic formats. They also have to be prepared in both Arabic as per Egyptian laws and English as per headquarters’ rules. Multi-layered and strict quality control procedures are in place to monitor effectiveness as follows.

Every single audit must have its working paper reviewed by a partner. Any “significant audit” with respect to size or risk is to be thoroughly read and signed by the managing partner. All listed companies audited must have their working paper additionally reviewed by a “conquering” partner who was not involved at any stage of



the audit to ensure the audit report is fully supported by the working papers. More and above, internal quality control department reviews a selection of client's papers while also assuring all audit files are in place, required signatures are present and no improvements are needed. Even more, international quality control reviewers from the headquarters annually complete both general and specific quality reviews. As explained by the advisor to the chairman "We take the assessment of our audit quality and performance undertaken by the Headquarter very serious as the results of the assessment may have bad implications for our firm as representing one of the big 4 CPA firms in the world". General quality reviews evaluate performance of the firm as a whole on areas such as trainings conducted, verification of independence checklist declared by each auditor claiming full independence, education and qualification of auditors, acceptance and continuation of clients, effectiveness of information systems, measures to protect client's records and maintain confidentiality ensuring only authorized access, compliance with rules and regulations and many others. Specific quality control re-reviews a sample of working papers already reviewed internally to evaluate their effectiveness in addition to personally reviewing their own sample.

At the same time, second, "Efficiency is deemed as the ability to perform high quality audit at lowest cost", confirmed the advisor. A strategy and plan is developed for every engagement and a budget prepared (as suggested by Fitzgerald and Brignall, 1991; Kaplan and Norton, 1996a, b; Malmi, 2001; Norreklit, 2000; Ittner and Larcker, 2003a). Estimated hours needed are multiplied by chargeable rate applicable to every auditor on the team reaching budgeted revenues necessary to cover costs. The actual times and revenues received are benchmarked against this to compute the "recovery rate" and evaluate on time deliveries. Firm specifies a 70 per cent recovery rate. Any deviations could be attributable to an unrealistic plan, client failing to submit records on time or problems specifically for the Egyptian environment such as traffic time wasted to get to and from client. Another reason is usually because the firm is known for "over auditing" by looking deep into the client's files, accumulating various samples and evidences [...], etc., This problem was identified and reported in several quality control performance reports. Nonetheless, the firm considers this an advantage they plan to maintain.

The concept of "after sales service" was rejected as applicable to auditing: "We are in the business of providing a professional service not a commodity with warranty, as far as we are concerned the audit is done once the report is signed and the firms attends the client's AGM. If the clients need more than this we will charge them for extra services. The only after sale meaning after audit event calling for action is subsequent events that occurred after report issuance and before the AGM in which case modifying the report may be needed" objected the advisor. If the firm offers recommendations, such as those regarding internal control, then whether the client applies them or not is not a measure of the firm's performance but is up to the client. If the client fails to adopt an important recommendation the firm may need to qualify the report but cannot consider it as failed to convince a client of its recommendations.

**5.1.4 Customers.** Very formal and written procedures for reaching and measuring customers' satisfaction using three ways are in place mostly stipulated by headquarters. First, customers' satisfaction questionnaires are sent to the highest position at the client's firm requesting response directly to the Big 4 audit firm's chairman without the knowledge of the audit partner who was in charge. This is a dual tool used to evaluate the partner simultaneously with measuring satisfaction on areas

such as reasonableness of audit duration, value added by the service, behaviour of personnel on site [...], etc. It is a five points Likert scale with 5 being excellent. The score is analysed after removing all extremes. For instance, if a response has all 1s it may suggest the client is dissatisfied with the partner or if it has all 5s the client may not have understood the questionnaire or just wants to compliment the partner thus removing those extremes seems fair.

Although the Big 4 audit firm randomly selects a sample to contact yet it biases it towards three factors: first, the opportunity the firm has for expanding services to client. For example, while banks pay low fees yet if satisfied they will refer the firm to their customers such as borrowers or companies the bank establishes. Second, the risk the client faces where the firm has a policy "what worries the client worries me". For example, if the client is facing severe competition affecting going concern then he might have incentive to falsify records. Lastly, fees are considered; usually clients with low risk and low opportunity also pay lower fees so are given less priority in the selection process.

Second approach utilizes direct calls made by the managing partner to a list of clients arranging for a meeting to discuss satisfaction. This is mainly used with those clients too busy to fill in questionnaires. Although the above approach is in direct contact with clients yet could create problems. "Egyptian consumers are quality conscious, if the manager himself goes in to ask about the firm's performance they will automatically conclude there is a huge problem the firm needs solving rather than actually enriching quality" explained the advisor to the Big 4 chairman. Lastly, outsourcing is applied using specialized institutes. Those are provided with a list of the clients and an official letter printed on the firm's letterhead addressed to clients requesting them to respond to the questionnaires aimed at satisfying them (Eccles, 1991; Malmi, 2001; Jazayeri and Scapens, 2008 confirmed the growing popularity of using questionnaires and outsourcing to measure customer satisfaction).

While some writers view brand awareness as a success indicator (Kaplan and Norton, 1996a, b; Jazayeri and Scapens, 2008) particularly relevant to the case of a Big 4 firm yet the firm itself suggests clients may contract with it if they are large thus require a large firm to audit them not directly because it is one of the Big 4. Similarly, high fees charged may not be indication of success but a reflection of efforts exerted in conjunction with client size. Further, this firm is actually known more for its chairman, a prominent and well respected accounting figure in Egypt, than for being a Big 4. In fact "the franchise's cost like levies, professional insurance indemnities (PII) and others may actually outweigh their benefits" added the advisor.

*5.1.5 Financial.* The firm's sophisticated information system and recruitment of vastly qualified accountants enable it to comprehensively measure its financial performance using the measures in the literature for BSC which are already prepared. It measures operating profit for every audit team as revenues less direct costs. This is then piled up to reach operating profit for every executive in charge of a cluster of audit teams which is too accumulated reaching profits per senior partner. Overheads and partner's remuneration are then deducted attaining firm's profit. Such process is repeated quarterly till reaching year end profits which is compared with budgets and last year's figures for the purpose of amending any significant unfavourable variances and for use in gross and net profits margins computations.

Expected revenue per engagement and "recovery rates" are calculated as previously discussed. Revenues from new services are analysed and revenues from ordinary services broken down by category and line of business. Moreover, cost per auditor is

calculated using time sheet filled by every auditor multiplied by applicable hourly rate compiled to reach cost per audit teams. The firm finds it unnecessary to compute asset turnover or revenues per auditor. In addition, in calculating profits per partner and distributing profits the firm adopts a methodology prescribed by headquarters. While the advisor was generous enough to explain it and allow viewing of supporting documents yet requested the recorder be switched off and this part omitted since it is confidential to headquarters.

### 5.2 *Performance measurement in the medium size audit firm*

It could be said that while the Big 4 audit firm does not adopt a BSC per say yet its performance evaluation system could be argued to resemble it. The medium firm apply a measurement system which does not comprehensively follow the BSC measures. Therefore, it provided an interesting insight and opportunity to identify whether a BSC would be viable for all types of audit firms with their different operating characteristics and sizes.

The medium size audit firm measures its performance mainly with respect to its personnel. Sophisticated and detailed procedures are implemented to ensure employees perform as intended, are knowledgeable and presentable. Further, it values more the quality of its output necessitating thorough working papers be prepared for every engagement and every auditor. It aims at promoting its business by showing the quality of its outputs. It is one of the first firms in Egypt to develop an internal quality control department specifically for this purpose perhaps because all partners of the firm are highly respected academics who are constantly aware of current developments in accounting, auditing and management issues and possess quality awareness. The firm's performance system will be described and each measure within such system will be tested for practicality including possible application of BSC. If a measure of BSC is applied in the firm this indicates practicality whereas if not reasons are provided.

**5.2.1 Awareness of BSC.** The medium-sized firm does not adopt a BSC for its performance. Although the quality control manager was not previously aware of the concept yet heavily supported it when explained stating "it is very practical of firms to measure all those aspects since they do in fact lead to success". He particularly agreed with the cause-and-effect relationship (as described by Kaplan and Norton, 1996a, b; Kaplan and Atkinson, 1998) stating "for firms to attain their strategies they need to hire qualified employees capable of delivering effective internal processes that satisfy clients who pay the audit fees" and "to satisfy external entities one needs to develop own self internally first before looking externally at the needs of others".

**5.2.2 Learning and growth.** 5.2.2.1 Employee capabilities, satisfaction and motivation. The medium size firm takes special care in evaluating performance of every individual monthly, quarterly, annually and at the end of each engagement. Several documents and checklists are set for such purpose. One of which measures the employee's competency on factors as: awareness of the job's tasks, work quality, speed of concluding work, following plans, continuously updating working papers, trustworthiness, behaviour, self-motivation, attendance, punctuality, appearance [...], etc. Each measure is weighted and a score calculated. Another document evaluates auditors after every engagement where they give a full report on all tasks performed, duration consumed and expenses incurred such as travel. This is fully reviewed by their supervisors and quality control manager to assess the auditor's performance and is also used for assessing

engagement's plan and expected costs formulated. Other forms are used for evaluating employees nominated for promotion and separate form is used if an employee is nominated to be a manager stressing on characteristics such as leadership, communication skills and qualifications.

The partner interviewed explained "On an interim basis, evaluation forms of audit groups under my responsibility are presented for examination and assessments, personal interviews are carried with selected candidates for promotion where technical discussions about their performance and behaviour are undertaken before a final decision is made by the board of partners". Besides employees' evaluation and promotion, those forms are used for compensation, directing employees, supervision, recommending specific trainings, costs control and assuring compliance with professional standards.

At the same time, qualification of employees is measured by years of experience and number of employees holding international certificates where a list of all employees is prepared with qualifications held by each. However, satisfaction forms are not prepared because the firm believes it can "tell" if employees are satisfied through their evaluation forms "if he is performing well, has good relations with colleagues, impressive attendance records [...] etc., this suggests he is satisfied, yet I don't see a reason why we can't prepare such a form tomorrow" explained the quality control manager of the medium size audit firm. Also, a "suggestion box" is available with keys held by only the partners encouraging personnel to anonymously submit complaints or suggestions or talk directly to quality manager. This whistle blowing feature should enhance the independence of the auditors. "Information was leaked few years ago about an audit manager who received a loan from the bank he is auditing at the banks' employees interest rate without the consent of the firm and he was fired after the discovery of this unethical and unacceptable behaviour" confirmed the quality control manager. Also, "the strong personality and the way the partner responsible for the administrative management of the firm helps minimize the occurrence of similar unethical incidence", explained both the partner and the quality control manager of the firm.

To ensure the growth of the firm and motivation of employees, they are given targets and appraised using the number of activities to be performed monthly rather than hours worked. "Employees who hand in their work in shorter time are better than those staying hours just to report them on their time sheets" explained the quality control manager. Working conditions can be considered appropriate. "I come and leave work at appropriate hours, have complete freedom to do my prayers, no discrimination is encountered in the firm on any basis and any work related travels are entirely paid for by the firm" described one of the firm's audit managers. "Quick decisions are made concerning paid allowances for any new locations outside Cairo to be visited for audit related to new clients, ensuring adequate compensations are received at the end of every month" stressed the audit supervisor responsible for the audit of a number of clients outside Cairo. Moreover, salaries and statuses are prorated upwards in reflection to qualifications received especially those holding international qualifications. However, "audit trainees are still in need of increase in their salaries to be able to establish a family with all related capital expenditures needed for such purpose", said one of the firm's audit supervisors.

Employees are also sent for training in areas the firm feels necessary, specialists are asked to provide in house trainings and partners continuously attend internationally recognized conferences to broaden knowledge. However, no training logs are kept since "auditing is a practical occupation, everyday my employees go to work this is training

for them, I cannot separate their working hours from their training hours and count them” objected the quality manager. However, the firm has a policy to pay for external training workshops or twice a year internal training for enhancing the employees accounting and auditing standards’ knowledge.

As to the assessment of the work of employees, compensation is only based on individual work. “Although auditing is a team effort yet I cannot tie rewards of one for the performance of another” the partner clarified. Linking rewards to performance has been debated in the literature; some support it (Eccles, 1991) others condemn it (Neely, 1999). “Outstanding employees are motivated to become partners through special salary increase, moral support and words of appreciation of their works, speedy promotion especially once they earn professional certificates”, explained the quality control manager. Finally, costs of recruiting, training and developments are documented and scrutinized.

5.2.2.2 Information systems. The firm has an up to date and comprehensive catalogued library holding the latest journals, books, references, auditing standards, laws [...], etc., in both hard and softcopies in addition to internet connection and a laptop for every employee to acquire more knowledge and the ability to contact highly specialized professionals for any enquiries. Time taken to adapt to new technology is not formally measured but as soon as a new relevant advancement is introduced the firm aims to promptly adapt it paying adequate sums of money to enhance the skills and knowledge of the firm’s employee, managers and partners. “The policy of the firm is to spend thousands of Egyptian pounds on new technology for the advancement of employees learning process and at the same time making tax savings as these costs are tax deducted”, confirmed one of the audit managers. Speed of adaption is not formally measured yet it aims to rapidly introduce the necessary changes including training sessions and distributing copies of the new standards to all employees. Also, softcopies are provided for use by the employees on their laptops while they are at the various clients’ premises. The firm has been using CASEWARE audit tool to electronically document the audit work and ACL for automating the field work tests.

5.2.2.3 Growth. Despite keeping no records of the number of new services offered yet the firm seeks developing new services via discussions with clients regarding their needs, awareness of innovative services offered by others principally international firms [...], etc. Also, the firm provides offers to clients, participates in tenders to enter new segments and continuously monitors advertisements for auditors or consultancy services while simultaneously marketing its services to attract more clients.

At the same time, the researchers noted that several firms in Egypt, including the one under study, have professional affiliation with international audit firms which provide guidance and advise on controversial issues, trains employees in their headquarters [...], etc., thus helping the firm grow in a speed exceeding its competitors in the market. As to revenues, they are known by executive partners yet costs are more challenging to measure. No formal records are kept for this since no individual is responsible for management accounting. Yet “if I wanted to get the cost I can look into hours worked by personnel divided by their monthly salary to get hourly rate then multiply it by hours worked on every engagement to estimate its cost” explained one of the executive partner in the medium size firm. Further, revenues from new services are directly and separately measured by executive partners. All information about the firm’s service fees are considered strictly confidential as partners believe that the information may have bad implications on the firm’s employees in relation to their salaries and other remunerations.

5.2.3 *Internal business process.* 5.2.3.1 Pre-audit. Despite being medium yet the firm has sufficient resources to recruit the “best there is”. However, “while all firms want specialized employees yet there always exists a need for fresh graduates who are then developed, or those with ‘character’ rather than just skills. What is important is to avoid hiring individuals with no background at all in accounting, other than that anything could be learned and trained” indicated the quality control manager. At the same time, independence is priceless for any audit firm (Gray and Manson, 2007). The firm has strict measures for circumventing any breaches through an independence deceleration form signed by every auditor on the team who attests to not only possessing full awareness of requirements of independence but fully intends to comply with them in addition to closely supervising employees during work: “the office takes a very serious stand against any breach of the code of conduct by any employee as the reputation of the medium size CPA firm is the key for maintaining clients, promoting the firm activities and gaining more recognition within the community” explained the quality control manager and confirmed by one of the partners.

On the other hand, clients are assessed on the basis of risk, previous year’s reports; personnel’s comment, cost/benefit analysis [...], etc., and informally by partners. A plan is made for each engagement including exact dates and times each step of the audit is expected to be completed which is then compared with actual time taken. Time to develop the plan itself is evaluated and varies according to complexity of client but for continuing clients it may only take couple of hours. Also, the firm stresses on continuously recoding and updating the working papers where each employee carries an “agenda” in both hard and soft copies describing every single activity performed. A “show your work Saturday” is applied whereby employees show their weekly work done to their supervisors and quality control manager (most auditing firms in Egypt works from Saturday to Thursday). Further, hard copies of the clients’ records are safely stored in an “archive” with keys only with the authorized individual. Similarly, soft copies are preserved on a “server” with password only known by authorized individuals and partners who have direct access to such information. Both archives are insured with smoke detectors and fire alarms installed everywhere.

Moreover, latest technologies are used where a list of all software and hardware is kept and annual maintenance and upgrade conducted. Although CAATs tool are not fully implemented yet CASEWARE and ACL are being used to document audit work and fieldwork tests, respectively. Quality control manager and his subordinate visit employees on “surprise” visits on the field; verify and review their “agendas” and working papers prepared before submission to partners, develop employees’ skills via recommending necessary trainings and continuously updating auditing models, references [...], etc. In addition, annual quality control visits from the headquarters of the affiliated firm further assures quality is maintained for all the mentioned elements.

5.2.3.2 Quality of service. Working papers are used to assess the effectiveness of auditors in detecting any misstatements within the clients’ financial statements. Nonetheless, “clients may not have any to begin with thus failure to detect any doesn’t mean auditors are unqualified” added the quality control manager. “All employees are adequately supervised via their supervisors, quality control department and inspection of their ‘agendas’”, explained the quality control manager.

Also, engagement performance is measured through both internal and international quality reviewers, mainly with reference to working papers, and several checklists are used to ensure standards were followed, all documents are present, sample sizes appropriates,

plan was followed [...], etc. The office also implemented a measure to inform clients of significant remarks. Official management letter printed on the firm's letterhead is addressed to each client at the end of each engagement expressing all recommendations identified. The firm believes it is not employed only to provide audit but also to supply clients' chief operating officers and chief financial officers with professional recommendations and add value to their business. Clients are informed of and approve to the precise times planned for the auditors to be on site to eliminate any disruptions or relationship strains, employees are constantly friendly and courteous [...], etc. Whistle blowing technique (Norreklit, 2000; Kaplan and Norton, 1996a) are in existence encouraging employees to anonymously report any quality concerns.

5.2.3.3 Post audit. In rare circumstances, subsequent events or errors were detected following the firm successfully completing the engagement and the report issued; "should such situation occur the reasons thereof would be severely investigated, employees penalized and the report amended" assured the quality manager. Each manager's work is peer reviewed via the quality control department and executive partners. Checklists compare the planned with actual times taken for every activity and any variation investigated. Total cost of each engagement is not straightforwardly measured yet costs such as travel time or other expenses are documented. A detailed checklist relays each relevant standard and whether it was in fact complied with.

5.2.4 Clients. Clients' satisfactions are not comprehensively measured. No formal or official records are prepared to indicate satisfaction since the firm claims it can "tell" if clients are satisfied through increase in their numbers, referrals, gratitude letters received from clients [...], etc. Consequently, this part investigates whether the missing measures identified in a BSC would be practical.

5.2.4.1 Customers' satisfaction. The idea of feedback forms was again rejected in Egypt "I would be harming my firm rather than helping it" confirmed the partner. Client's complaints could be easily tracked and documented through the individual contacted within the client organizational structure. The firm already ensures that the audit partners as well as the audit managers themselves are always available for any inquiries or requests. The firm evaluates and continuously assures following the plans it formulated and its clients approved to. Timely updates are provided from the audit partner to the client as well as to the partners especially every "Saturday". Also, the managing partner of every engagement acts as its "liaison" partner. Additionally, all clients are given a list of other numbers to contact should they have any queries. The firm sets the fees and periodically request raising them which if the client approves this is interpreted as an appreciation of its efforts. Although not one of the Big 4 yet still recognized and clients "aware" of it for being owned by a respectable, prominent Egyptian figure.

5.2.4.2 Clients' growth and retention. The firm keeps records of all its clients and calculates total sales and variety of services offered to the same client over the years. However, according to Egyptian laws the audit partner should not retain the same customer for more than seven years or five years if the client is a bank. The executives partners know how many new clients are contracted yet consider it needless to calculate a percentage of that. The firm believes in "spill over" or "words of mouth" effect where its reputation and service quality drives in more customers and it enquires into means those customers became aware of it. Formal documents are kept of tendering participated, those won or lost so partners have full awareness of such tenders and the reasons behind the firm failing to win such service opportunities. This firm too does not approve of using

market share “we are a medium firm, comparing us with the rest of the market is unrealistic. If we are to compare our ‘share’ we wouldn’t look at the market as a whole but compare it with firms the same size as us i.e. benchmarking” (Womack *et al.*, 1990; Camp, 1989). Partners are conscious of and rigorously explore reasons for lost clients if the firm did not voluntarily terminate the relation, thus views it redundant to prepare separate records for this. The firm consents to the use of client’s number as measure of success. It counts the number of new clients each year and employs several strategies to increase them, as previously outlaid.

*5.2.5 Financials.* The lack of a comprehensive financial measurement system was explained with two reasons. First, being a medium-sized audit firm thus the employment of personnel specifically for keeping financial records was viewed as “useless and not worth it” by both the partner and quality control manager since partners themselves could easily perform that job. Second, as it is a private family owned business, the partners wish all their financials to remain confidential among only family members. Nonetheless, the partner was generous enough to discuss how he financially measures the performance at his office and allow viewing of confidential supporting documents. He stated “I prepare a list of total revenues received from each client, decompose total revenues into its constituents from audit, tax, review and consultancy services and compare those with last year’s to determine growth, revenue from each service is matched against its expenses including applicable taxes to calculate its profits and again compare it with last year and a monthly statement of all expenses is prepared. My expenses are mostly salaries, printing, photocopying and marketing”. With respect to the practicality and viability to apply a BSC measures he stated that budgets are planned for recruiting, developments, training, salaries and other expenditures each year. Feedback controls are achieved by him comparing those figures to the budgets or to last year’s results. He noted that “growth in fees is directly estimated by me as explained. Any relevant profitability or liquidity ratios I need are calculated by me”. The partner further emphasized that he could estimate the profitability of individual engagements based on the above analysis. He is also aware of his receivables and tries to minimize them.

## 6. Conclusions

This paper aimed at answering a number of research questions:

- RQ3.* What challenges face auditing firms in designing and applying performance measurement system compared to other industries?
- RQ4.* Is the BSC a viable, practical and valid strategic management control tool for auditing firms and are targets set for measures?

Several findings emerged from the study. First, based on the results of the case studies, interviews, documents analysis and observations in two Egyptian auditing firms, the performance measurement systems analysed showed that a BSC would be viable yet its application varies from large to medium size firms. Large auditing firms with comprehensive performance systems may already adopt a system resembling BSC since most of the elements can be measured though it may not necessarily be called a BSC. This was the case in the Big 4 auditing firm studied. Though they adopted a performance measurement system which has some of the features of a BSC, this was not called so. Medium size audit firms are, however, unlikely to adopt such a comprehensive system and may partially measure some of its elements suggesting that size and perhaps even



ownership structure affects choice of performance measures (Hoque, 2003; Sousa and Aspinwall, 2010). The medium size firm studied did not have a comprehensive performance measurement approach and because it is a family owned firm, there was also a high degree of confidentiality in its performance measurement. Despite its size, however, the medium size firm too did show interest in the concept of the BSC and confirmed to its practicality. Thus it can be concluded that both large and medium size firms can use the BSC though some adaptation would be required to make it useful to individual organizations. Therefore, although the BSC is a Western concept yet is still applicable to an Eastern context such as Egypt with some changes and more understandings by those responsible for the design and implementation of such measure.

Second, contrary to the well documented argument of firms relying more on financial rather than non-financial measures of performance (Johnson and Kaplan, 1987; Joshi *et al.*, 2003; Abdel Kader and Luther, 2006; Blackwell *et al.*, 1994) the research found that the studied firms rely predominantly on non-financial measures. There was therefore minimal use of financial indicators. The indicators used resemble those in the learning and growth and internal business process perspectives of a BSC. Evidence obtained during the study suggests this may be due to the nature of auditing services which require the use of highly qualified professionals and quality audit processes to deliver an appropriate audit report.

Third, the heavy regulations and tightening of standards around auditors force auditing firms to be preoccupied with satisfying those standards first and before they start considering their customer satisfaction and financials. Further, audit firms cannot “satisfy” clients like any other industry would since they have to issue the appropriate audit report irrespective of client’s “satisfaction” with it. Moreover, auditing is a service which, in comparison with manufacturing, is more challenging to value being intangible, perishable and heterogeneous thus emphasis is placed more on service quality rather than quantity or cost (Fitzgerald and Brignall, 1991). In effect there was less need for financial and customers’ measures in the firms. In addition to the industry specific reasons identified above the nature of the Egyptian environment could also be argued to have influenced the non-reliance on financial and customers’ measures in the studied firms. Some firms in Egypt desire their financials to remain confidential to owners only thus no comprehensive or formal systems are used to measure them. Similarly, Egyptian customers are quality conscious who become suspicious if firms try to measure satisfaction rather than understand it is actually to satisfy them (as indicated by interviews responses discussed in Section 5).

Fourth, the forms of the performance measurements systems including possible BSC used by the auditing firms presented a tool by which partners and audit managers and supervisors assessed the performance of employees within the auditing firm and got a feedback about problems encountered during the fieldwork tests. Continuous meetings were held between partners and employees where discussions about how employees are achieving the targets represented in deadlines for completing the assignments, meeting customers’ needs in terms of quality, best use of the firm’s resources and maintaining a good relationship with customers to ensure the renewal of the engagement in future periods. In the medium size auditing firm, Saturdays were selected for follow up and feedback discussions between partners and employees to identify deficiencies and problems encountered during the audit. Such findings support arguments and results identified by Kaplan and Norton (1996a, b), Malmi, (2001), Norreklit, (2000) and Jazayeri and Scapens (2008).

Fifth, the advisor to the chairman of the Big 4 as well as partners in medium size firm confirmed that the performance measurement systems used included a monitoring internal process by which the firm assesses the quality of its services. Targets were set by partners and performance measured with the aid of a set of forms and checklists including both financial and non-financial measures reducing the need for the use of the traditional budget especially in the medium size audit firm. The above results confirm Malmi (2001) argument that BSCs or similar systems have been developed independently of the budgeting process to help control a company activities as part of its performance management system. Also, the performance system in auditing firms supported Kaplan and Norton (1996a) belief that in most organizations the strategic planning and budgeting processes were separate.

The research offers a number of contributions to the accounting literature. First, the research highlighted a number of challenges facing auditing firms with their unique characteristics represented in: first, the need for advanced sound information systems to record and assess performance measures in particular when using a BSC in addition to other audit tools; second, training as an important element of success for such firms with the costs associated with implementing internal and external training programs; third, high turnover of employees with negative impact on the efficiency and effectiveness by which quality and deadlines of services provided are achieved; fourth, the subjectivity in measuring the firms' growth and problems related with assessing the firms' share in the professional market; fifth, the need to develop new services without being considered in violation of the requirements of laws and regulations and auditing standards for non-audit services; sixth, the pressure faced by the auditing firms to meet the requirements imposed by international CPA firms needed to maintain their international affiliation and related financial and business benefits; and finally, the subjectivity embedded in assessing customers' satisfaction and what are considered acceptable measures to achieve such objective which is the core of the professional firms' business success.

Second, the research enriches the literature of performance measurement systems in services. Though studies have been conducted into performance measurement systems, the majority of these studies are from the manufacturing sector leaving a gap for studies in services (Fitzgerald and Brignall, 1991; Malmi, 2001; Jazayeri and Scapens, 2008). Third, large institutions and their prevailing practices have been thoroughly investigated yet comparable studies for performance evaluations in medium and small size firms are lacking (Hudson *et al.*, 2001). This research discussed in one of its case studies performance measurement practices within a medium size audit firm.

A number of limitations are associated with the current research. First, the research examined only two case studies. While this might impose some limitations on the ability to generalize the results to all auditing firms in Egypt, the tentative conclusions drawn from the study highlighted certain issues that may be relevant in understanding performance measurement in the industry. Case studies are time consuming to conduct, a problem faced with this research which affected the number of auditing firms investigated. Although, access to a suitable case may not be granted (Bryman and Bell, 2007), the researchers had access to two of the most reputable firms in Egypt. Thus, the problem of generalizing the results to other entities on the grounds that the case object may not be typical or representative to the whole industry (Brown, 1998; Saunders *et al.*, 2007; Bryman and Bell, 2007), may not be true as the analysis of performance measures and possible application of a BSC from case studies on a large and medium size audit firms are representative of other similar entities operating in the same industry.

BSC is a strategic management tool worthy of adoption. BSC requires considerable amount of time and money for effective implementation therefore it may be necessary to conduct a cost/benefit analysis which if proved favourable auditing firms should gradually adopt it and introduce necessary changes to its current performance systems. Models are needed to better understand how business performance is developed and as argued by Norreklit (2000); this is where management accounting research has to make significant contribution to the literature. Finally, more research is needed to continue to explore the concept of coherence in performance measurement systems and in particular the BSC when such tools are implemented in auditing firms, and to examine the extent to which it could be helpful to understand the viability of applying the BSC for auditing firms and, in particular, the use of non-financial measures. The question remains whether the concept of coherence will be equally important in developing non-financial performance measures in other contexts, and this question awaits further research as indicated by the current research and findings of Jazayeri and Scapens (2008).

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