



# Management Accounting Change and the Contemporary Business Environment: An Article Review

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**Abstract:** Many criticisms of the role of traditional management accounting practices started during 1980s. Such criticisms focus on the argument that traditional management accounting techniques are no longer suitable to provide relevant information to managers within the new and complex business environment. This article is principally concerned with reviewing the literature, in an attempt to determine the type of organizational and management accounting change are accrued in response to such criticisms. The article argues that essential management accounting changes presented to cope with criticisms of the role of traditional management accounting practices. However, the article claims that current management accounting practices need more improvement. There is an urgent need to extend the scope of management accounting change to survive with new aspects of the contemporary business environment. Management accounting should encapsulate social, economic and environmental aspects to create the optimal change. Information on such aspects is becoming increasingly important to a broad range of corporate stakeholders because it is a key resource in managing a business's response to the issue of corporate social and environmental accountability in addition to securing the long survival. In addition, this article argues that management accounting should focus more on Comprehensive Management Accounting Perspectives (CMAP) which seek holistic efficiency instead of concentrated focus on the economic efficiency.

**Keywords:** Management Accounting Change, Comprehensive Management Accounting Perspectives (CMAP), Traditional Management Accounting, Organizational Change.

## 1. Introduction

"Everybody is admiring change. Management accounting is not an exception." (Wickramasinghe and Alawattage, 2007: p.2). The new economy, technology driven world, and contemporary business environment demand change. Management accounting change has become a topic of much debate in recent years. Whether management accounting has not changed, has changed, or should change, have all been discussed (Burns and Scapens, 2000:3). Developing new and advanced management accounting techniques became crucial to meet the new information requirements by managers (Burns and Vaivio, 2001). The importance of exploring and understanding the adoption of the

new management accounting techniques increased significantly in such new business environments. Accordingly, management accounting change became an increasingly popular and interesting field in accounting research (Sulaiman and Mitchell, 2005).

However, the main research focus within management accounting change field was given to a limited number of the new management accounting techniques, which normally seek the economic efficiency for organizations. For instance, management accounting change literature pays more attention to s techniques such as Activity Based Costing (ABC) (i.e. Major, 2002; Soin et al. 2002; Hopper and Major, 2007; Krumwiede and Charles, 2014)



Balanced Scorecard (BSC) (i.e. Kaplan and Norton, 2001; Kasurinen, 2002) and Enterprise Resource Planning (ERP) (i.e. Scapens and Jazayeri, 2003; Kholeif et al. 2007; Abdel-Kader and Nguyen, 2011). However, exploring the adoption of other new Comprehensive Management Accounting Perspectives (hereafter CMAP), which seek enhancing efficiency through emphasizing political, social, economic and environmental aspects (i.e. sustainability management accounting, carbon management accounting, water management accounting and environmental management accounting “EMA”), is less evident in management accounting change literature. The priority should be given to explore and understand those CMAP within different contexts (Jasch 2003, 2004 and 2006, Burritt, 2004; Venturelli and Pilisi, 2005, Gale 2006b; Csutora and de Palma, 2008; Qian and Burritt, 2008; Arroya, 2012; Sands et al. 2016; Bui and Villiers, 2017; Christ and Burritt, 2017).

To incorporate social, economic and environmental aspects within new CMAP we need to adopt a critical view rather than a technical view to management accounting.

Wickramasinghe and Alawattage (2007) identify three views, which could be considered to look at management accounting; technical-managerial view, pragmatic-interpretive view and critical/socio-economic view. Firstly, the technical-managerial view is the traditional view of management accounting. The believers of this view consider the new CMAP as proposed solutions to managerial problems. This view represents the conventional wisdom of management accounting, which is widely held by practitioners, consultants and professional management accountants. The technical-managerial view looks principally at new management accounting techniques as useful methods that could help organizations to be sustained and to increase their efficiencies. Secondly, the pragmatic-interpretive view is concerned with the ways in which the new management accounting techniques are applied in the organizations and the consequences of such applications. It concentrates on various issues such as describing the management accounting practice, identifying the changing

features and theoretically explaining the managerial practice. Researchers rather than practitioners usually hold this view of management accounting. As stated by the authors “...this view represents a broader interpretive project by which management accounting is seen as social and institutional practice rather than direct applications of textbook techniques.” (Wickramasinghe and Alawattage, 2007: p.12). Finally, the critical view of management accounting focuses on exploring the management accounting practices in relation to the interaction between organizations and their broader socio-economic contexts. The researchers believe that these three views of management accounting could present consecutive degrees of depth in investigating the management accounting practices. Building on that, on one extreme the technical-managerial view could provide the basic and surface analysis of the new management accounting techniques. On the other extreme, the critical view might be more appropriate to provide in-depth and comprehensive investigation of these new management accounting techniques and perspectives by considering the interplay between organizations and their wider socio-economic and political contexts.

Based on the view we believe and rely on the lenses we adopt to look at management accounting change, the changes of management accounting practices could represent a revolutionary or an evolutionary phenomenon. The revolutionary change may cause major disruption to existing institutions and routines. The revolutionary change could be due to some critical factors or threats facing organizations such as bankruptcy. It is normally accompanied with major alterations in current routines and norms. On the other hand, the evolutionary change involves incremental or minor modifications in the existing routines. It evolves throughout the process of imitation or adapting of the existing routines (Abdul Khalid, 2000; Youssef, 2013). The researchers believe that the change to new CMAP which embedded political, environmental and socio-economic dimensions is a revolutionary one. Accordingly, this paper claims that the complexity embedded with studying new CMAP such as sustainability management accounting and EMA makes the



research investigating those types of change is less evident in management accounting change's literature and located within other disciplines fields of research. However, the contemporary business environment should motivate more emphasis on the comprehensive management accounting change rather than focus on technical changes that seek mere economic efficiency.

The remainder of this paper is organized as follow. Section 2 presents organizational change and management accounting change. Section 3 identifies characteristics of organizational change. Section 4 provides criticisms of traditional management accounting. Section 5 presents the need for management accounting systems to be changed. Finally, Section 6 concludes.

## 2. Organizational Change and Management Accounting Change

Dawson (1994) argues that change in an organization may be simply defined as any alteration in tasks or activities. Change represents an on-going process, which can be regressive or progressive accompanying both intended and unintended consequences. Change has many aspects: quantity, quality, and speed of change. It refers to what is to be made different; beliefs, attitudes, interaction patterns of groups in an organization or behavior of individuals. Using different theories of change leads to focusing on different aspects as well as different types of changes. The meaning of change is a problematic issue and it is not easy to define (Goodman and Kurke, 1984; Pettigrew, 1995; Quattrone and Hopper, 2001). In the field of management accounting, Abdul Khalid (2000) stated that the concept of accounting change is also problematic as there is no universal definition of accounting change. The traditional view of accounting change can be seen in terms of organizational reform and improvement, for example the introduction of new accounting methods and techniques which help managers to make better decisions and enhance the overall decision making process.

However, the accounting change should not be viewed as only an introduction of new methods

or techniques. The introduction of these new methods and techniques is important but the way they interact with other factors inside and outside the organization affects widely the accounting change. This broader view of accounting change involves factors such as social environment, changes in regulation, the way accounting information is used in the organization, changes in attitudes towards accounting information etc. Accounting change is not merely changes in procedures, but also it is changes in the day-to-day practices in an organization.

Organizational change is a complex process associated with many risks such as resistance, conflict of interests, and implications on culture values (Abdul Khalid, 2000; Siti-Nabiha and Scapens, 2005). Moreover, the consequences of the organizational process cannot be fully predicted. There are always intended results as well as unintended results. However, there are many reasons, which enforce organizational change (Burns and Scapens, 2000). The reasons for organizational change could be divided into two main types of changes. The first one is related to the changes in external environment, while the second one is associated with the changes in internal environment.

### 2.1 Changes in External Environment

Over the last few decades, many new factors influenced the external environment of the organizations. External factors such as globalization, international competition and climate change had a wide effect on the new business environment. The reduction in quotas, tariffs and other barriers to free trade as well as significant improvements in global transportation systems created a worldwide competition in many industries. This global competition provided a challenge to companies to become excellent competitors even for those companies that are doing very well within their home markets. However, it is very unrealistic for companies to compete in such a global environment if their directing and decision-making activities rely on second-class management accounting systems. For example, Bui and Villiers (2017) highlighted the increasing need of adapting the management accounting



system in response to the climate change risk exposure and regulatory uncertainty. Burns and Scapens (2000) stated that an excellent management accounting system does not guarantee success in the global competition but a poor management accounting system obstructs the best effort of people in the companies to become excellent competitors. Moreover, the trend towards privatization and deregulation of industries facilitated the usage of private sector techniques in public sector companies, which affected the management accounting system. Tsamenyi et al. (2010) argued that privatization programs that were widely imposed by World Bank (WB) and International Monetary Fund (IMF) on emerging economies create organizational change in accounting and control systems. They argued that change involves various aspects of accounting such as budgetary control systems and preparation and auditing of financial reports. Consequently, the changing roles of management accountants have to be acknowledging as well (Yazdifar and Tsamenyi, 2005).

Furthermore, the challenge of traditional management accounting system increased due to the increased importance of the service sector. Management accounting has to be adapted in order to deal with less tangible products associated with the service sector (Jones and Mellett, 2007; Fiondella et al. 2016). Management accounting needs to create new types of information and to use new measures of performance. Management accounting is required to focus on creation and management of value rather than merely emphasize on past performance and organizational control (Abdel Khalid, 2000; Uzar and Kuzey, 2016). The revolution of new and advanced manufacturing technologies and innovation in products during the last two decades led some observers to view them as a second industrial revolution. This revolution required major changes in how companies should be managed and in how works to be done. The revolution of technology also includes internet, computer systems and telecommunications.

Moreover, companies have started following new management approaches such as Enterprise

Resource Planning (ERP), Total Quality Management (TQM), Just-in-Time (JIT) and Theory of Constraints (TOC) to enhance their activities and increase outputs. The revolution of technology and the new management approaches have many implications for management accounting. These implications require change in traditional management accounting to remain relevant in this new business environment (Kholeif, 2011).

## 2.2 Changes in Internal Environment

There are many internal changes within the organizations, which affected the organizational change as well as the changes in external environment. The centralized hierarchical structures of the old organizations have changed to more decentralized, flat and flexible structures and horizontal organizational forms (Burns and Vaivio, 2001). Dawson (1994) argued that these new organizational structures led to the replacement the individual tasks with team-working ones. These teamwork tasks have many implications especially on the control system, which tend to be exercised through peer review and self-discipline or self-accountability. Therefore, with the empowerment of employees within these new organizational structures, the peer pressures of teamwork replace the traditional managerial control. Debates advanced new forms of accounting practices and innovative accounting techniques, which can serve the needs of modern organizations. In turn, these new accounting practices and techniques influenced the organizational change because accounting is not an independent phenomenon. Accounting may be changed due to organizational changes and wider societal factors and may act as a tool for organizational transformation (Hopwood, 1987; Clegg and Hardy, 1996; Ezzamel et.al. 1997; Abdul Khalid, 2000; Busco and Scapens, 2011).

The wide usage of non-financial performance measures together with financial measures also affects the accounting system in general and the management accounting system in particular within modern organizations (Lau, 2015). Moreover, Libby and Waterhouse (1996) found that the reported information



changed to be broader and more frequent. They stated that the most frequent changes are those made to the decision-making system. Ezzamel et al. (1997) argued that using new performance measures enable accountants to interact more directly with managers. Arguably, decentralization and usage of non-financial measures enhance the empowerment of employees and increase the communication between accountants and managers, which facilitate the accounting, change. According to Kaplan (1983) and Johnson and Kaplan (1987), the new non-financial performance measures such as manufacturing flexibility, product leadership and delivery performance play an important role in measuring overall manufacturing performance. They claimed that the non-financial measures along with emphasis on long-term competitiveness and profitability instead of short-term financial measures create a challenge to management accounting to respond to this new business environment. Burns and Vaivio (2001) claimed that business managers tend to manage their own budgets rather than being given the figures and hit the variances once a month.

### 3. Characteristics of Organizational Change

Some insights are gained from previous research investigated organizational change (i.e. Schein, 1992; Klein and Sorra, 1996; Molinsky, 1999; Abdul Khalid, 2000; Ko et al. 2008; Jacobs et al. 2013; Oyewobi et al. 2016). These insights may be considered as inherent characteristics of organizational change.

#### 3.1 The Complexity of Organizational Change

Many studies were conducted within different disciplines, which indicated the complexity of organizational change (Hopwood, 1987; Vaivio, 1999; Siti-Nabiha and Scapens, 2005; Thrane, 2007; Seal and Herbert, 2011). One face of this complexity is that organizational change is normally accompanied with unintended and unexpected results. Therefore, Dawson (1994) described the organizational change as an unfolding, non-linear and dynamic process. The path and consequences of organizational change cannot be predicted. The other face of this complexity is that individuals are always

involved in organizational change, which could lead to different constructions of the change process. There is no universal rule governing the organizational change, which makes it very difficult to analyze and understand the organizational change.

The organizational change cannot be fully controlled because there are external forces, and those factors affect the process of organizational change (Vaivio, 1999; Jacobs et al. 2013). In addition, organizational change could be subjected to the power of different groups and coalitions inside the organization. Therefore, the external and internal factors associated with the process of organizational change could lead to different results from those initially planned. Organizational change cannot be characterized by a systematic process with rational series of decision-making activities and events (Thrane, 2007). Prediction of the outcomes of change is always extremely difficult and it is a risky endeavor (Burns and Scapens, 2000; Jacobs et al. 2013).

#### 3.2 Resistance to Organizational Change

Resistance to organizational change is one subject, which received a substantial attention in organizational studies. Many causes could explain resistance to organizational change such as change in job description and the required skills, lack to tolerance, uncertainty, loss of familiarity with the current situation, and reduction of financial security (i.e. Dent and Goldberg, 1999; Abdul Khalid, 2000; Soin et al. 2002; Siti-Nabiha and Scapens, 2005; Latta, 2015; Mathews and Linski, 2016). Burns and Scapens (2000) stated that the resistance of change could be because of the inability of the current staff to adopt the new system. Losing power is also one to the main reasons for resistance. Change always threatens people who have power in the organization as the new system could challenge their management control and the ability of take coercive actions. Resistance could save those people the need to develop new patterns to deal with the new situation in order to maintain their power. (Abdul Khalid, 2000). Siti-Nabiha and Scapens (2005) argued that the current members of staff could exercise the resistance as a ceremonial implementation of



the new system. They described this latter type of resistance to change as passive resistance. Siti-Nabiha and Scapens (2005) argued that it is difficult to deal with resistance in general and with informal resistance in particular. They meant by informal resistance the one which is never made explicitly and lacks a specific focus or location. Informal resistance is hard to be addressed by an appropriate managerial action. However, some strategies are suggested to manage the resistance to organizational change such as training programs, employees' participation, enhancing communications as well as education and involvement of professionals in the ongoing process of change. Such strategies will reduce the natural tendency to resist (Fiondella et al. 2016).

### 3.3 Culture Impacts on Organizational Change

Prior research (i.e. Dawson, 1994; Abdul Khalid, 2000; Siti-Nabiha and Scapens, 2005; Jones and Mellett, 2007; Latta, 2015) has addressed the role and importance of organization culture in managing organizational change. Abdul Khalid (2000) highlighted that culture values would affect the organizational change process. She argued that culture might represent the organizational values as norms and take assumptions for granted. This situation happens when a solution of a problem works each time. Such a solution would become a norm and is taken for granted and other actions not based on that solution are considered as inappropriate or irrelevant. Based on these norms, the members of the organization recognize the acceptable and the unacceptable behaviors. Subsequently, these norms and taken-for-granted assumptions provide stability, structure and meaning for the members of the organization.

The organizational values are constructed in light of the norms and the taken-for-granted assumptions to create the organizational culture, in time, the organizational culture spreads among old and new members of the organization through formal and informal tools. Formal tools are inductions and training programs whereas informal tools are personal relationships and interactions as well as intergroup influence.

Change normally challenges this organizational culture, and may be very difficult in terms of changing these norms and taken-for-granted assumptions. Therefore, Schein (1992) claimed that the organizational change process, in that sense, might be a very complicated and time-consuming one, which could lead to high anxiety among the members of the organization.

### 4. Criticisms of Traditional Management Accounting

Robert Kaplan is one of the pioneers who highlighted many challenges and problems associated with management accounting on both research and practice levels. Kaplan in his criticism of management accounting research states that:

*“That is, contemporary researchers’ knowledge of managers’ behavior is based not on studying decisions and procedures of actual firms, but on the stylized models of managerial and firm behavior that have been articulated by economic theorists who, themselves, have limited first-hand knowledge of the behavior they have modelled” (Kaplan, 1984:407).*

Management accounting along with other disciplines face the challenge to investigate and understand the critical success factors within the new business environment. Kaplan (1983) claimed that management accounting should be one of the central disciplines, which has to expand its vision beyond the traditional success measures. In sequence, management accounting researchers need to be more creative and inventive to understand the main determinants for successful manufacturing performance. For example, they need to create new non-financial measures for performance evaluation as well as to develop the financial measures to be more relevant for long-term profitability and competitiveness. However, Kaplan admitted that it is not an easy mission for those researchers.

*“This is not an easy research agenda. It will require researchers to become more familiar and more actively involved with actual manufacturing operations. It is a significant departure from the current research strategy*



*of managerial accountants who are applying analytic tools from other disciplines to a stylized, simplified, and perhaps obsolete representation of manufacturing operations” (Kaplan, 1983:689).*

Kaplan (1983) advised management accounting researchers to overcome these difficulties by conducting their field studies with an open mind and without a rigid research design. In other words, the management accounting researchers must be flexible and knowledgeable when they access their research sites. Furthermore, the researchers should not be purely descriptive but it would be useful for them to use a variety of models of quality improvement, cost reduction and productivity which could be documented and examined at the field sites in order to identify the new critical success factors. Such a research strategy could be costly and time consuming but at the same time it should be a highly rewarding one in a sense that it contributes significantly in developing the managerial accounting system to support and enhance the overall organizational success.

Within the same venue, scholars of management accounting (i.e. Maher, 2001) indicate the scarcity of management accounting research based on field studies in comparison with the studies based on archival data or questionnaires. This scarcity of field-study research has serious implications on the understanding of the complex manufacturing environment. The inevitable result is that the textbooks and research articles of management accounting keep describing production processes using simplified management accounting models, which do not represent a real picture of manufacturing environment nowadays. Subsequently, the new graduated management accountants are not able to create the cost and management accounting systems, which should be applied in that complex production environment (Kaplan, 1984).

Investigating the cost accounting implications of the major changes in the organization and technology of manufacturing operations represents a new path for management accounting research accounting researchers were being trained in quantitative

techniques from operations research, probability and statistics, and economic theory the path actually followed froze the production setting. The alternative (not mutually exclusive) path, of investigating the role of accounting information in the more complex production and assembly operations of contemporary manufacturing settings, was hardly pursued by any researcher. Certainly there should be a place both for researchers investigating complex information and contracting problems in simplified production settings and for researchers dealing with the managerial demand for information in realistic and rich production settings (ibid:408; emphases added).

Kaplan (1984) stressed that management accounting researchers do not learn about the manufacturing and organizational problems of contemporary industrial environment by reading management and economics science journals. They need to leave their offices and investigate the new managerial practices of innovating companies. Those companies normally respond to changes in their business environment by introducing new technology and new arrangements for producing their outcomes as well as introducing new measurement systems in their companies. Therefore, the challenge for management accounting researchers is to discover and document these innovative practices, and this leads to more inductive-based research than deductive. Accordingly, the management accounting research is more productive for individual researchers as well as for the management accounting discipline.

Innes and Mitchell (1990) claimed that the process of management accounting change received little attention from the management accounting researchers. Additionally, they highlighted the lack of management accounting research based on field studies. They criticized the technical nature of management accounting research in general and management accounting change research in particular. Although identifying the technical developments of management accounting is important, understanding how these changes occurred is crucial as well. Therefore, they argued the need of explanatory research-based on case studies to explain the mechanics and



the consequences of management accounting change. They suggested that conducting management accounting change research at the micro level provides a significant contribution in understanding the type of change, factors to motivate the change and the consequences of that change within a specific context enhancing research's validity. In the same vein, Lachmann et al. (2017) pointed out that the management accounting studies which rely on an explicit theoretical perspective and reliance on longitudinal research designs suggest a further improvement with regard to internal validity, whereas involvement of multiple professional groups in case and field studies implies an increase in external validity of management accounting research.

Kaplan (1984) argued that traditional management accounting normally relied on limited techniques to provide information to managers. Most common techniques include standard costing, full costing, variable costing, break-even analysis, budgeting, residual income and variance analysis. Kaplan (1984) claimed that most of these techniques were established and developed by 1925. The complexity of manufacturing processes and diversity of products increased significantly during the next 60 years. Therefore, many scholars (i.e Kaplan, 1983, 1984; Johnson and Kaplan, 1987, Cooper and Kaplan, 1991; Ashton et al. 1995; Leftesi, 2008; Alsharari et al. 2015; Nuhu et al. 2016) argued the obsolescence of traditional management accounting. Consequently, the information produced by traditional management accounting systems is likely to fulfil the external reporting requirements rather than to reflect the reality of the new manufacturing environment. Therefore, the optimal management accounting techniques should evaluate both financial and non-financial aspects and communicate both types of information: financial and non-financial to managers. In addition to incorporating the broader political, socio-economic and environmental factors associated with the contemporary business environment. However, the traditional management accounting still focuses on financial performance measures more than non-financial ones. As a result, some other important dimensions of performance

successfulness might be excluded such as social, environmental and sustainability dimensions (Milne, 1996; Otley 2001; Burritt, 2004; Xiaomei, 2004; Arroya, 2012; Bui and Villiers, 2017). Management accounting systems must change in response to any change in manufacturing processes in order to provide relevant information to managers (Kaplan, 1986). Drury and Tayles (2000) argued that the claim of obsolescence of management accounting systems should not be taken as a granted assumption. They pointed out that these criticisms of traditional management accounting systems are based mainly on studies conducted within a small number of companies in United States, which could lack generalization. In addition, in response to criticisms of traditional management accounting, some new management accounting techniques were introduced and developed, such as Activity-Based Costing (ABC), Balanced Scorecard (BSC), Target Costing (TC) and Life Cycle Costing (LCC) (ibid). Albeit, the gap between theory and practice is associated with the usage of these new management accounting techniques which is still one of the main researchers' concerns to reach the optimal management accounting system (See for example: Scapens, 1991, 1994; Drury, 1996; Burns and Scapens, 2000; Leftesi, 2008; Taylor and Scapens, 2016). There is a growing consensus that traditional management accounting practices simply do not provide adequate sustainability and environmental information for internal and external users as well. Traditional management accounting should provide useful information regarding the environmental costs and benefits to managers in order to help them make their decisions (Milne, 1996; Arroya, 2012).

For instance, traditional management accounting represents the most obvious and most easily measured environmentally related costs. These costs are only the tip of the iceberg. "Hidden environmental costs may be greater than expenditures for pollution abatement and control; finding and eliminating these hidden costs can provide significant opportunities for improvement of decision-making, business planning and overall efficiency" (Staniskis and Stasiskiene, 2006: p. 1253). Therefore, one of the fundamental criticisms



of traditional management accounting from the environmental perspective is that it largely ignores many environmental costs which threaten business sustainability (Burritt, 2004). The problem of ignoring many political, socio-economic and environmental factors by traditional management accounting was addressed in many studies (i.e. Gale, 2006a; Staniskis and Stasiskiene, 2006; Arroya, 2012). These studies provided various reasons for that ignorance, for example the complexity linked with investigating broader external factors and ignorance of some types of costs such as environmental costs, assuming that they are not significant. Most importantly, traditional management accounting still focuses on the costs, which accrued only in the manufacturing stage, and ignores the other factors and costs may affect the whole product or service life cycle (i.e. Burritt, 2004; Reich 2005; Staniskis and Stasiskiene, 2006; Dunk, 2012).

### 5. Need to Change Management Accounting Practices and Perspectives.

During the last few decades, management accounting has developed by using many innovative techniques, tools, and philosophies. According to Abdel-Kader (2011) “the most notable contributions include activity-based techniques, Balanced Scorecard, strategic management accounting, Beyond Budgeting, and sustainability and environmental management accounting” (Abdel-Kader, 2011: xii). The principal objective of using such new innovative techniques and tools is to change the role of traditional management accounting from cost determination and financial control to the more sophisticated role of adding more value to the organizations. Since the publication of *Relevance Lost* (Johnson and Kaplan, 1987), many questions were raised regarding the role of management accounting. Academics, management accountants and consultants found out that traditional management accounting does not meet the information requirements within the modern environment. Therefore, they have sought to develop advanced management accounting techniques. Johnson and Kaplan (1987) started a new era for management accounting research and practice. They call for

radical thinking and innovation of management accounting and new techniques to achieve relevance once again.

The need of new management accounting is an obvious issue when just looking at the definition of management accounting. An early definition of management accounting from the institute of management accountants was:

*“...the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control within an organization and to assure appropriate use of and accountability for its resources” (Bhavesht et al. 1997: 10).*

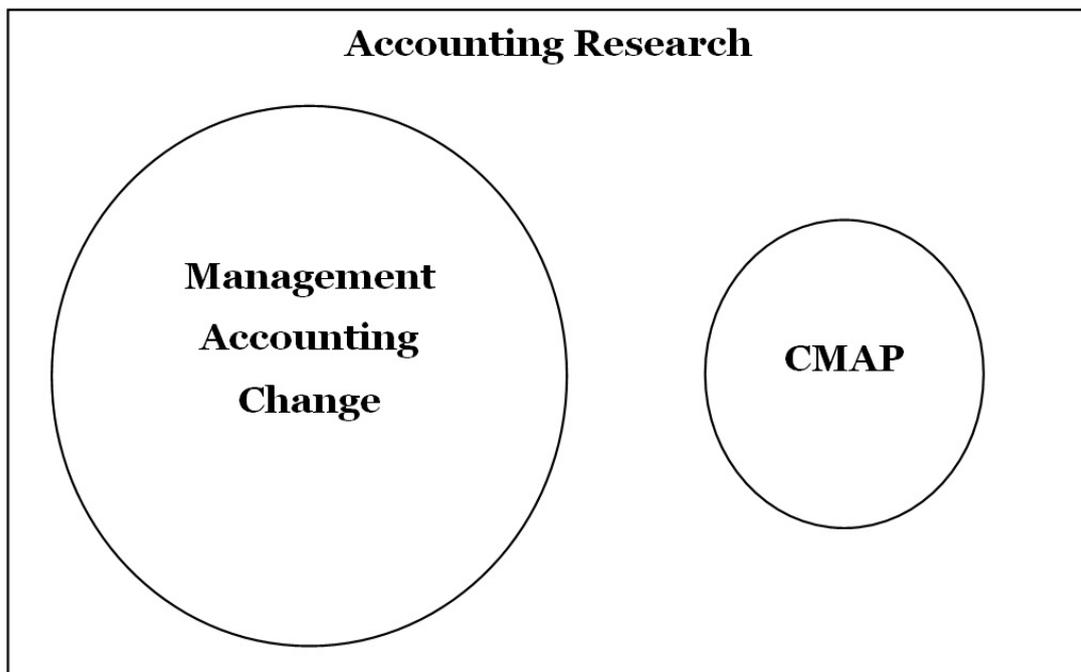
This definition was modified to:

*“...a value adding continuous improvement process of planning, designing, measuring and operating non-financial and financial information systems that guides management action, motivates behavior, and supports and creates the cultural values necessary to achieve an organization’s strategic, tactical and operating objectives” (Atkinson et al. 2001: 5).*

A simple comparison between these two definitions shows that the first one merely focuses on performance measurement and communicates financial information for planning and controlling. Whereas the second definition extends the role of management accounting to include non-financial information as well as highlighting that the management accounting is a continuous improvement process which serves in achieving the various organizational objectives: strategic, tactical and operational. The role and objectives of traditional management accounting are extended, and this requires more flexibility and more creativity to generate a new management accounting, which has the ability to perform effectively within the new business environment. Burns and Vaivio (2001) argued that the new economy demands change and this creates the challenge for academics and practitioners of management accounting to fulfil the new economy’s demand. This challenge includes how to best utilize the extended capacities of information technology and how the new management accounting

argued that accounting literature in general and management accounting literature in particular pay less attention to CMAP that seek enhancing efficiency via exploring more elaborated factors compared with new techniques which merely focus on economic efficiency. The research associated with new CMAP which incorporates the political, socio-economic and environmental factors (i.e. carbon management accounting, sustainability management accounting and EMA) is still not well investigated within accounting literature. Moreover, that type of research currently is not linked explicitly with

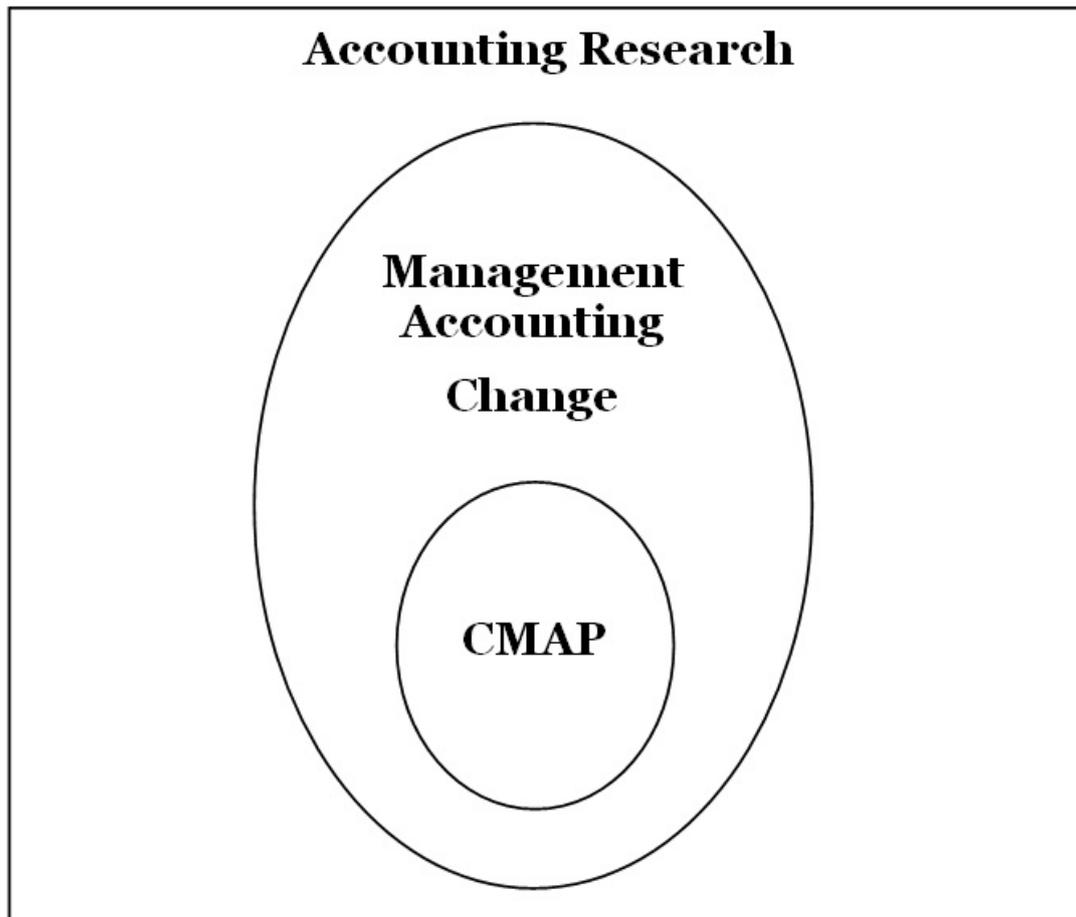
the accounting field of research. Most of the accounting research that investigated more comprehensive political, socio-economic and environmental factors are currently located within other disciplines such as cleaner production, environmental management, biotechnology, energy and climate change etc. We argue that the current detachment between investigating new CMAP seek comprehensive efficiency and the management accounting literature should be adapted. Figure (1) shows the current detachment between those two fields of research as follow:



**Figure (1) Detachment between Management Accounting Change and CMAP**

As Figure (1) illustrates, the current research regarding CMAP is not located within the management accounting change field of research. Consequently, the focus of management accounting change research is given to other new management accounting tools and techniques (i.e. ABC, ERP, BSC etc.). Therefore, paying more attention to investigating new CMAP such as sustainability management accounting, carbon management accounting and EMA within accounting change perspective is crucial. The reason for that is the particular nature of CMAP. CMAP is associated

with change in both accounting practices and socio-economic and environmental ones. Moreover, CMAP is embedded with change inside organizations as well as outside them. Subsequently, the investigation of CMAP involves a more sophisticated degree than the investigations of other new management accounting techniques. Based on the above, Figure (2) shows the context proposed in this research to look at the above two fields of research; management accounting change and CMAP.



**Figure (2) shows the need for relocating the CMAP field of research within its broader management accounting change field of research.**

## 6. Conclusions

This article focused on the broad research field of this study: management accounting change. The discussion pointed out the criticisms for the traditional management accounting and the need for change. The obvious call of changing management accounting practices by Robert Kaplan many decades ago was followed by introducing new management accounting techniques such as ABC, BSC, TC, LCC etc. Those new management accounting techniques acquired attention from academics and professionals as well. Those techniques actually enhanced the management accounting information systems and made a huge step to change the traditional management accounting practices. However, the contemporary business environment became more complex and more

comparative. Consequently, the political, socio-economic and environmental dimensions should be incorporated in new CMAP that search for more holistic efficiency. This study claims that the management accounting literature pay less attention to studying CMAP. Based on this study, we call for another era of management accounting change studies that focus on investigating CMAP. We believe that the investigation of CMAP is more complex and sophisticated compared with other management accounting techniques, but it will be the most rewarding as well. Researchers need to adopt a critical view in management accounting research rather than the dominant technical view which has shaped the current management accounting research.



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