NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
BANKING AND ACCOUNTING PROGRAM

MANAGERIAL ACCOUNTING AND ITS ROLE ON ESTIMATING THE EFFICIENCY OF FINANCIAL PERFORMANCE

MOHAMMED GHAZI RAFAAT

MASTER'S THESIS

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ACCEPTANCE

We as the jury members certify " Managerial Accounting and its Role on Estimating the Efficiency of Financial Performance” prepared by Mohammed Ghazi Rafaat defended on 29/01/2021 has been found satisfactory for the award of degree of Master.

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DECLARATION

I Mohammed Ghazi Rafaat, hereby declare that this dissertation entitled "Managerıal Accountıng And Its Role On Estımatıng The Effıcıency Of Fınancıal Performance" has been prepared myself under the guidance and supervision of 'Assoc. Prof. Dr. Aliya Işıksal' in partial fulfilment of the Near East University, Institute of graduate studies regulations and does not to the best of my knowledge breach and Law of Copyrights and has been tested for plagiarism and a copy of the result can be found in the Thesis.

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ABSTRACT

MANAGERIAL ACCOUNTING AND ITS ROLE ON ESTIMATING THE EFFICIENCY OF FINANCIAL PERFORMANCE

The study examines the roles of management accounting in the decision making of telecommunications companies. The study was based on arguments showing that there are limited management accounting conceptual models that can be applied across all industries. Related studies showed that management accounting conceptual models vary with the size and objectives of the firm leading to different operationalisations and concepts. This subsequently affects the efficiency of financial performance of companies like manufacturing companies. 83 questionnaires were collected from management accountants of 5 manufacturing companies in Erbil, the Kurdistan Region of Iraq. Regression analysis in conjunction with SPSS version were used to analyse the collected data. The results of the study showed that the performance evaluation and budgeting roles of management accounting were essential for enhancing manufacturing companies' efficiency of financial performance. Improvements in the informative and decision-making, and strategic roles of management accounting were adversely linked to a decline in the manufacturing companies' efficiency of financial performance. The study suggests that manufacturing companies' must internal and external environmental analysis to enhance the effectiveness of their strategic analysis to improve their financial performance.

Keywords: Budgeting role, communicating information, efficiency of financial performance, information and decision making, management accounting, performance evaluation role, strategic analysis.

ŐZ

YÖNETİCİ MUHASEBESİ VE MALİ PERFORMANSIN VERİMLİLİĞİNİN KARNESİ

Çalışma, telekomünikasyon şirketlerinin karar verme de yönetim muhasebesi rolleri inceler. Çalışma, tüm sektörlerde uygulanabilecek sınırlı yönetim muhasebesi kavramsal modelleri olduğunu gösteren argümanlara dayanıyordu. İlgili çalışmalar, yönetim muhasebesi kavramsal modellerinin firmanın büyüklüğüne ve hedeflerine göre farklı operasyonelleştirmelere ve kavramlara yol açan farklı olduğunu göstermiştir. Bu daha sonra üretim şirketleri gibi şirketlerin finansal performans verimliliğini etkiler. Irak Kürdistan Bölgesi Erbil'deki 5 üretim şirketinin yönetim muhasebecilerinden 83 anket toplandı. Toplanan verilerin analizinde SPSS versiyonu ile birlikte regresyon analizi kullanılmıştır. Çalışmanın sonuçları, üretim şirketlerinin finansal performans verimliliğini artırmak için yönetim muhasebesinin performans değerlendirmesi ve bütçeleme rollerinin şart olduğunu göstermiştir. Bilgilendirici ve karar verme deki gelişmeler ve yönetim muhasebesinin stratejik rolleri, üretim şirketlerinin finansal performans verimliliğindeki düşüşle olumsuz bir şekilde bağlantılıydı. Çalışma, üretim şirketlerinin finansal performanslarını artırmak için stratejik analizlerinin etkinliğini artırmak için iç ve dış çevre analizlerinin olması gerektiğini ileri sürmektedir.

Anahtar Kelimeler: Bütçeleme rolü, bilgi iletişimi, finansal performansın verimliliği, bilgi ve karar verme, yönetim muhasebesi, performans değerlendirme rolü, stratejik analiz.

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ABBREVIATIONS

ABC:	Activity Based Costing
CIMA:	Chartered Institute of Management Accounting
BA:	Budgeting Roles
EFP:	Efficiency of Financial Performance
IDM:	Information and Decision-making Roles
OLS:	Ordinary Least Squares
SAR:	Strategic Analysis Roles
MAPs:	Management Accounting Practices
SPSS:	Statistical Package for Social Sciences

INTRODUCTION

Background of the study

Management accounting is instrumental in business for providing essential information about the business' operating conditions (Oyewo & Ajibolade, 2019). Studies linked management practices (MAPs) to numerous and important organisational activities (Alsharari, 2019; Sinaga et al., 2019). Others consider MAPs to be instrumental for highlighting information about the effectiveness of a company to use its resources and funds invested in the business (Hutahayan, 2020; Nguyen & Le, 2020). Others linked it to survival and growth (Kastberg & Siverbo, 2016; Järvinen, 2016). Regardless of the point of observation used, it is critical to establish that MAPs are vital for enhancing both financial and non-financial performance (Zare & Shahsavari, 2012).

Nevertheless, MAPs in providing essential information needed to plan, manage and control a business. Hence, they also emphasise on the importance of MAPs in business. Both the success, survival and growth of the company lie in its ability to plan, manage and control and these functions are made feasible through information provided using MAPs (Zare & Shahsavari, 2012). This is what rationality in decision making implies and manufacturing companies capable of using such information to make rational decisions can easily attain set targets by devising effective strategies. Yadav and Sagar (2013) contend that the benefits of such activities are not only confined to firms but also extends to the entire economy as the firms grows and establishes branches around the country. Business success is established on the verge of good decisions while economic progress is established from having good and successful companies.

Meanwhile, distinction between financial and non-financial have existed and still exist regarding their application in organisations. Huge attention has been given to financial indicators with insignificant consideration being given to non-financial indicators

(Merchant & Stede, 2007). However, a shift in business ideas and operational conditions is causing a huge shift towards incorporating non-financial indicators are a significant measure and reflector of business performance. As such, huge example can be draw from corporate social responsibility as business measure their social performance. Social indicators had been neglected and emerging studies are showing that there are social performance elements that are linked to the company's financial indicators (Luther, Fortuin & Wouters, 2005; Needles, Powers & Crosson, 2011).

The initial role of management accounting is presumed to assist with the strategic analysis of the business' activities (Balta et al., 2009; Mussoa & Francioni, 2012). Such involves examining areas where organisational resources can be put to effective use. That is, management accounting seeks to maximise efficiency and effectiveness in the use of organisational resources. This involves the strategic allocation of resources to activities that offer such opportunities away from activities that waste such resources. Such enhances organisational performance and hence we can contend that the strategic use of management accounting enhances organisational performance.

Using quantitative financial measures in related studies has in most cases limited the development of new knowledge. Non-financial indicators especially those that examine the efficiency of financial performance are not given much preferences in academic studies. The study addresses these issues in detail and uses information collected from industrial companies in Iraq to answer related questions and find strategic measures to enhance the role of MAPs in manufacturing companies. Such needs to be incorporated in manufacturing companies which are presumed to significantly rely on financial measures of performance to assess their current and future positions (Nguyen & Le, 2020). This need to be related which MAPs to determine how MAPs influences manufacturing companies' efficiency of financial performance. Such is vital in countries such as the Kurdistan region of Iraq where MAPs are increasingly taking a toll in application in manufacturing companies. Hence, this study uses information collected from manufacturing companies to examine the roles of MAPs in influencing the efficiency of financial performance. The study bases on the arguments that the roles of management accounting in business are strategic analysis, performance evaluation, budgeting role and information and decision making roles (Alsharari, 2019; Järvinen, 2016; Kastberg & Siverbo, 2016; Oyewo & Ajibolade, 2019; Sinaga et al., 2019).

Research problem

Cause-and-effect relationships existing between internal business activities can be determined using accounting information (Järvinen, 2016). Hence, the importance of accounting information in manufacturing companies cannot be downplayed. Meanwhile, problems were also noted regarding the conditions under which the measures would hold their validity and relevance when measuring certain performance aspects (Alsharari, 2019; Sinaga et al., 2019).

Nevertheless, situations were a company's operating units are independent were viewed as causing the results and suggestions not to hold (Akkermans & Oorschot, 2005). On the other hand, conflicting results were noted when the operating units were interdependent of each other (Miyazhdenovna et al., 2020; Nguyen & Le, 2020; Zare & Shahsavari, 2012). In other words, the results of using management accounting performance measures were viewed as contingent. That is, they dependent on the interdependence of the company's contingent sub-units.

These observations and suggestions affect MAPs roles and its uses in an organisation. Furthermore, they also influence financial performance but with these challenges in question, it becomes difficult to determine the exact roles of MAPs in manufacturing companies as to their nature. This also affects the influences of these roles on the efficiency of financial performance.

With all these ideas in mind, it therefore becomes apparent that studies are needed to address these issues in detail. Therefore, addressing these issues justifies the importance and originality of this study. A study by Kastberg and Siverbo (2016) supports these idea and highlights that the use and roles of MAPs in organisations vary in relation to size of organizational units, profit centres versus cost centres, public versus private sectors, and from one location to the other UK versus US organizations.

Studies are needed to determine which of the measures apply, under which conditions does each apply, and their possible consequences.

Objectives of the study

The main objective of the study is to examine the roles of MAPs in influencing the efficiency of financial performance. In order to accomplish this and answer the related question, “In what ways does MAPs influence manufacturing companies’ efficiency of financial performance”?, regression analysis will be used. The study bases on the arguments that the roles of management accounting in business are strategic analysis, performance evaluation, budgeting role and information and decision making roles. This will be conducted in conjunction with the importance of testing the following hypotheses;

- **H_1:** The strategic use of management accounting has a positive effect on organisational performance.
- **H_2:** The performance evaluation role of management accounting has a positive effect on organisational performance.
- **H_3:** The informative and decision-making role of management accounting has a positive effect on organisational performance.
- **H_4:** Budgeting activities of management accounting have a positive effect on organisational performance.

Significance of the study

The study is significant for enhancing understanding of the ways through which MAPs affects the efficiency financial performance. This is instrumental for conceptualizing aspects that are needed to explain financial and accounting situations faced by manufacturing companies around the world. Thus, the study results in the development of a widely applicable conceptual framework capable of explaining variations in manufacturing companies’ financial performance.

Organisation of the study

The study is structured into four chapters. The initial chapter lays out the foundation of the study by shedding the link between MAPs and financial performance. This is eventually linked to examining how their interaction affects manufacturing companies' efficiency of financial performance. The second chapter uses theoretical and empirical ideas to establish the roles of management accounting and how they influence the efficiency of financial performance using a set of hypotheses. Methodological details shaping this study are provided in chapter three. Chapter four concludes the study by highlighting possible conclusions and recommendations drawn from the study. It also provides details of suggestions needed to improve future studies.

CHAPTER ONE

LITERATURE REVIEW

1.1 Introduction

This chapter deals with related theoretical and empirical ideas pertaining to the roles of management accounting and their effects on organisational performance. As such, focuses on the contingent variables, related empirical studies, hypothesis and conceptual framework development.

1.2 The contingency theoretical framework of management accounting

This study proposes to apply the contingency theory to examine the roles of management accounting on estimating the efficiency of financial performance. The reason being that the contingency theory acknowledges industrial differences in which the firm is operating in (Burns & Stalker, 1961). This is in line with propositions which suggests that accounting practices are tailor made to suite a specific industry (Otley, 1980). Oil and gas companies, banks and other ordinary companies are known to be having different accounting practices (Zare & Shahsavari, 2012). The other reason is that the contingency theory offers more detailed information.

Implications made by the contingency theory are insufficient to draw huge attention as to the exact nature of independent variables through which MAPs affects financial performance (Zare & Shahsavari, 2012). In addition, the exact roles of MAPs ion manufacturing companies cannot be established using mere ideas established by the contingency theory. Hence, empirical findings are needed to establish a base of determining the roles of MAPs in manufacturing companies. This significantly requires attention to be given towards reliance on accounting performance measures (Ahn, 2001) and performance measures in manufacturing companies (Hornungova, 2014).

1.3 Reliance on accounting performance measures (RAPM)

Though the continence theory provides details about the management accounting variables influencing performance, contradictions relate to the appropriate of the established performance measures. Such needs explanations as to which of the measures should be used and which ones are appropriate. Earlier studies by Hopwood (1972) showed that subordinates' performance was primarily measured using standardised accounting performance measures (RAPM). The idea was that certain APMs were more important than others and hence priority was assigned to each measure based on its importance. Moreover, this was done in accordance to the importance of enhancing efforts to attain long-run effectiveness.

Despite the established and use of RAPM, contrasting ideas were still established as to the need to deal with challenges and undesired outcomes emanating from the use of such measures. For instance, Ahn (2001) highlighted that using a specific measures offers its own benefits and drawbacks. Hence, this can impair the attain of set goals and calls for managers to devise the best methods and measures of performance. Thus, the relevance of performance measures was viewed as being attached to various elements which organisations ought to consider all the time.

Problems were also noted regarding the conditions under which the measures would hold their validity and relevance when measuring certain performance aspects. For instance, situations were a company's operating units are independent were viewed as causing the results and suggestions not to hold (Akkermans & Oorschot, 2005). On the other hand, conflicting results were noted when the operating units were interdependent of each other. In other words, the results of using management accounting performance measures were viewed as contingent. That is, they dependent on the interdependence of the company's contingent sub-units. These observations and suggestions were however viewed as significantly variable in relation to size of organizational units, profit centres versus cost centres, public versus private sectors, and from one location to the other UK versus US organizations. Studies are needed to determine which of the measures apply, under which conditions does each apply, and their possible consequences.

Different studies uses various measures of performance which influence the type of results obtained. In other words, the studies cannot be compared together and have some validation issues (Otley & Fakiolis, 2000). The implications of various measures on organisational outcomes, research implications, and strategic policy are diverse and inconclusive. Such applies in industries that use different bases or indices of performance (Dury & El-Sishini, 2005), and accounting standards (Hedrik, 2006). Such cases require harmonization and consolidation of accounting statements. Comparable management account performance outcomes are essential for the development of studies that aspire to improve the measurement ability of such indicators.

Other performance measures have declined in importance due to changes in time and circumstances. For instance, budgetary control is presumed to have declined in significance as the usage of non-financial measures continues to gain significance in importance (Taherdoost, 2016). Issues such as an increases in out-sourcing and inter-organizational relationships. In addition, organizational structures are becoming flatter. These issues and trends are highly prevalent in contemporary business situations. Thus, relying on these studies does not offer much in explaining present and future scenarios.

Simons (2000) information from senior managers and CEOs to develop a broader framework on levers of controls. Boundary, beliefs, interactive, and diagnostic controls were used as part of the examination process. Tessier and Otley (2012) noted these elements to be problematic and examined ways to improve them. Such was based on the idea that there exist ambiguities in the definition of interactive uses. Hence, the study sought to place attention on the demarcation between the interactive and diagnostic uses of controls. The findings showed that defining the term interactive uses in various forms results in different applications and interpretability of study results. It was noted that different measures are as a result of such differences and have probable effects on other outcomes and measures.

A study by Bisbe et al. (2007) established that there are various dimensional aspects of interactive uses. The studies illustrates that numerous controls are bound to be found within each indicator or measure. Using distinct elements can also contribute towards using various interactive controls within each indicator or measure. Nevertheless, the established ideas about RAPM established in earlier studies remains undeveloped despite an increase in the significance of RAPMs. This issues requires scientific research approach if meaningful results are to be obtained in situations involving the use of various indicators and measures. Setting an indicator or prescribing a specific measure can provide different results if not less than the expected outcomes. Yet others may provide the desired outcomes better than the actual proposed measures. This can cause contrasting insights if not hinderances to the attainment of organizational objectives.

Similar insights were highlighted when organisational managers focus on specific outcomes or targets and production levels can be cut before they exceed a particular level. Either way, changes in performance units and revenue are unavertable and devising the best indicator or measure that deals with these issues. Such studies in this area have not widen and increased in nature to cater for these aspects and how they serve an crucial measure RAPM. The concepts of RAPM seem to be highly applicable in earlier organisational situations and to bear little influence in modern organizations. Modifications are mostly needed to ensure that they widely and significantly apply in both earlier and modern organizations situations. This requires the incorporation of performance targets, financial performance and non-financial performance measures. Thus, RAPM helps to incorporate these measures to examine accounting and other financial information. Hence, this is validates the importance of this areas in developing further studies.

1.4 Performance measures in manufacturing companies

Various measures are used to measure performance and these include a series of financial and non-financial indicators. Previous studies have been widely concentrated on using financial indicators (Hornungova, 2014) and modern studies are now basing on the significance of non-financial indicators.

Quantitative tools have been significant in determining the performance of companies (Hedrik, 2008). Their significance has and is still being attached to a number of critical aspects. For instance, quantitative indicators are vital for allocating organisational resources (Kaplan & Norton, 2015). In another study by Harif, Hoe and Ahmed (2013) it was noted that financial indicators are essential for setting targets in organisations. These measures are a base of determining managers' performance and the overall performance of the organisation. Additionally, they are viewed as being instrumental for budgeting, planning and setting of employee and organisational targets (Dury & El-Shishini, 2005). Others extended the idea to the indicators being used for evaluating the value and performance of foreign subsidiaries (Hedrik, 2008). However, the main emphasis of using such indicators is to measure, monitor and help regulate an organisation's performance regarding suppliers, customers, employees, internal process and other financial aspects.

In international business, the performance of foreign subsidiaries is weighed against that of the main branch. The goal is to determine how the multinational performed with and without the subsidiary (Ramsey & Bahia, 2013). As such, decisions are made as to continue or discontinue investing funds into that subsidiary or not. Concerns might to find profitable areas of the subsidiary generating huge revenue inflows. However, internal relationships within the organisation can hinder the attainment of such goals because of the nature of their complexities. Thus, a combination of non-financial and financial measures are used by MNCs to evaluate the performance of foreign subsidiaries.

Significant distinction between financial and non-financial have existed and still exist regarding their application in organisations. Huge attention has been given to financial indicators with insignificant consideration being given to non-financial indicators (Merchant & Stede, 2007). However, a shift in business ideas and operational conditions is causing a huge shift towards incorporating non-financial indicators are a significant measure and reflector of business performance. As such, huge example can be draw from corporate social responsibility as business measure their social performance. Social indicators had been neglected and emerging studies are showing that there are social performance elements that are linked to the company's financial indicators (Luther, Fortuin & Wouters, 2005; Needles, Powers & Crosson, 2011). Stakeholders to the business can evaluate their business interests with a particular organisation by relating to how it manages the environment (Choi & Meek, 2011). They also look at how the business handles matters pertaining to corporate governance and good ethical conduct (Kaplan & Norton, 2015). Social indicators have also been significantly linked to investments made by the business towards managing and preserving the environment (Needles, Powers & Crosson, 2011). Investment in community projects and other activities that enhance people's social wellbeing are also another social performance indicator. It is believed that companies that are prepared to invest in these social and environmental indicators are associated with better financial performance results as opposed to those that do not engage in CSR.

Financial measures of performance have a monetary measure attached to them and include profits and sales revenue. They are used to prepare financial statements like cash flow statements, balance sheets, income statements etc. There are either measured on a short term or long term basis and each basis of measurement seeks to promote the attainment of short term and long terms goals respectively or both (Hornungova, 2014). Concerns were raised about the use of short term indicators citing that certain investments can yield negative NPVs in the short term and huge positive returns in the long run (Hedrik, 2008). Such projects are unfortunately rejected on the basis of negative NPVs observed within a short time frame. Companies can thus, use a combination of both short and long-term indicators to enhance the quality of the decisions they make.

Studies have also concentrated on establishing the link between financial performance indicators. Using indicators was been significantly established to foster sound improvements in performance (Kaplan & Norton, 2015). Firms using financial indicators are presumed to have a better and detailed insight about the business' operations. This is because they can easily employee cost minimisation and revenue maximisation strategies. More so, resources can be allocated to activities generating more sales revenue. They can use such information to devise methods of dealing with market and industry competition and thus placing themselves in a long term position to safeguard their survival and enhance their competitive edge.

Growth and market expansion strategies are related to the use of market and industry indicators which are used together with the firm's financial indicators to establish relationships, gaps and opportunities. Thus, financial indicators are mostly inclined to provide useful information about the business' performance, expansion and growth opportunities, and how it can handle competitive pressure and solidify its position in the industry.

Meanwhile, non-financial indicators play an important role in modern business management, and strategic development activities. This is because business performance as it widely becoming famous if influenced by numerous immeasurable indicators (Luther, Fortuin & Wouters, 2005). Mostly, the business' performance can be driven by non-financial and immeasurable elements. For instance, customers and employee relations can influence how customers and employees behave towards helping the business achieve its goals (Needles, Powers & Crosson, 2011). Such efforts will eventually translate into improved performance levels through increased production output, corporation, completed tasks, motivation levels etc. thus, non-financial indicators can be established to have profound effects on financial indicators and the overall performance of the business.

A study by Warren and Reeve (2006) revealed that behind changes in financial indicators or financial performance are hidden non-financial aspects that cannot be easily measured. Collier (2006) argues that business activities can have their quantity and quality elements inspected using non-financial indicators. However, concerns can be raised about the ineffectiveness of non-financial indicators. For instance, underlying studies noted that using non-financial indicators can provide subjective insights about business operations or activities (Collier, 2006; Merchant & Stede, 2007). This is because each firm has its got its own indicators that it prefers to use over others and yet they measure the same if not different aspects of performance. Besides, non-financial indicators are defined in various ways which results in the establishment of different concepts, applications and approaches. When such exist, measuring performance becomes a subjective activity which firms distinctively define, approach and deal with. In case otherwise, non-financial indicators are not significantly regulated or influenced by accounting standards or governmental regulations (Yadav & Sagar, 2013). Their use, definition and approach are to the discretion of its managers, how they perceive business activities and attempt to approach them.

The other important feature about non-financial indicators is that they do not base on financial statements. In other words, they cannot be used or derived from computing financial data and measurements (Ramsey & Bahia, 2013). Nevertheless, the problem of deciding which of the indicators should be used to measure performance (Kaplan & Norton, 2015). Others consider that the problem is which of the indicators is used to measure performance, which performance aspects ought to be measured by the indicators and what is the criteria of determining their effectiveness, limits, decision criterion.

Arguments have always existed about the relationship and coherence of non-financial indicators (Hornungova, 2014). For instance, Choi and Meek (2011) established that non-financial indicators can conflict with each other and thus, causing certain types of non-financial indicators to act ion contradiction of the other non-financial indicators. Hence, cases like this always see certain indications working at the expense of other indicators.

Subsequently, studies have attempted to determine the best financial and non-financial indicators to use to measure the performance of a company. Notable financial and non-financial indicators were established in a study by Harif et al. (2003). These are provided in Table 1.1 and Table 1.2.

Table 1.1: Financial measures of performance

No.	Financial measures	A	B	C	D	E	Total	Selected from this study
1	Profitability	√	√	√	√	√	5	√
2	Cash flow position	√	√	√	√	√	5	√
3	Return on investment			√	√		2	√
4	Inventory turnover			√	√		2	√
5	Budget vs actual	√	√			√		√
	Total	3	3	4	4	3		5

Note: A= Nelly (2002); B= Luther et al. (2005); C= Chen and Shimerda (1981); D= Matsumoto et al. (1995); E= Sun and Li (2006)

Source: Adapted from Harif et al. (2013), p. 83.

Table 1.1 denotes profitability and cash flow position as being the notable financial indicators and budgeting as the least form of financial indicators. These ideas do show that differences in deciding which indicators to use are always subjective. The classification and ranking of such indicators is also problematic.

The use of non-financial indicators is presumed to be as a result to develop measures that align with the company's strategic goals (Zaman, 2004). Consequently, this has led to the development of a balanced score card method of determining organisation performance. The balance score card contains two important measures of performance, that is, leading measures and lagging measures (Simons, 2000). According to Dury and El-Shishini, (2005), the former measures influence future performance levels while the latter looks at past actions based on financial perspectives (Warren & Reeve, 2006). Table 1.2 provides a description of the balanced score card measures of non-financial performance.

Table 1.2: Non-financial measures of performance

No.	Nonfinancial measures	A	B	C	D	E	Total	Selected from this study
1	Customer satisfaction	√	√	√	√		4	√
2	Product/service quality	√	√	√	√	√	5	√
3	Market share					√	1	√
4	Employee efficiently	√	√				2	√
	Total	3	3	2	2	2		4

Note: A=Zaman (2004); B=CIMA (1993); C=Fitzgerald et al. (1991); D=Haskett et al. (1994); E=Cho and Pucik (2005)

Source: Adapted from Harif et al. (2013), p. 83

Table 1.2 depicts that notable studies established that the notable non-financial performance indicators are customer satisfaction and product or service quality (CIMA, 1993; Fitzgerald et al., 1991; Haskett et al., 1994; Zaman, 2004). However, this does not necessarily entail that the other indicators (market share and employee efficient) are not significant and vital for determining the business' non-financial performance. Nevertheless, these indicators provides a model measurement tool that is applicable across different sectors and industries. Such is vital for comparing findings established for different sectors, companies, countries and research areas (Akkermans & Oorschot, 2005). This is crucial for enhancing coherence and congruency of study findings among researchers. Studies lack coherence and congruency when they dispute each other about a particular topic of concern. Hence, using non-financial indicators such as the balance score card to measure the non-financial aspects of the business is crucial for dealing with these matters and other related concerns (Ahn, 2001).

1.5 Related empirical studies

Various studies examine the role of management accounting in influencing the performance of an organisation. Differences relate to areas of focus, methodologies used and established findings. However, concerns exist regarding to how they portray the relationship between management accounting and performance. Yadav and Sagar (2013) contend that performance measurement tools used in a study are influence by the variables in question. Ramsey and Bahia (2013) highlighted that the nature of performance indicators used is influenced by the type of corporations under consideration. As such, non-financial indicators were considered to be appropriate for use in MNC subsidiaries. Contrasting ideas were provided in a study by Yadav and Sagar (2013) which highlighted that basic standardised frameworks should be used for all the firms irrespective of their industry of operation. Their study recommends that standardised templates like the balance score card should be used to measure performance across all platforms and sectors. Luther, Fortuin and Wouters (2005) suggested that firms tailor made performance measurement system should be used to measure the performance of an organisation. The study recognises the effects of internal and external variables on the operational activities and performance of the organisation. Similar observations were made by Hornungova (2014) highlighting that concepts and models used to measure and evaluate corporate performance. Both studies highlight the influence of variables and mediating elements inn influencing of factors affecting the performance of an organisation.

These ideas mentioned here in denote that inconsistent results are a common feature in research and studies will always contradict on which type of measure will be used to measure and evaluate performance. Thus, models and measure tailor made to measure and evaluate the performance of manufacturing companies ought to be developed and used. Such will help to enhance reliability and validity of the performance measures. However, this can lead to inconsistent ideas and models that contradict with each other.

Both financial and nonfinancial indicators of performance are vital in business as they play crucial roles which are linked to survival, dominance and growth. Zaman (2004) noted that these indicators are of huge significance in measuring and evaluating the process of management control in foreign subsidiaries. This depicts the level of importance of MAPs and shows that they are not merely confined to internal and small operational elements of the business. Such is important for drawing strategies to foster international business growth and the establishment of MNCs.

Kaplan and Norton (2015) established that a balanced Scorecard be used as a measure of the non-financial aspects of the firm. This is because it caters for essential aspect that are pivotal for the success of the business but are immeasurable using standard financial measures. Hence, a good view of the business' success is ascertained on the basis of having good and reliable indicators of the performance of the company.

Other than the measures of performance, significant improvements in studies examining the relationship between management accounting and organisational performance. For instance, a study by Alabdullah (2019) highlighted that management accounting plays a vital role in measuring, evaluating and managing the performance of an organisation. Such a study highlights that management accounting is positively related with organisational performance. This study will be built on this notion and will develop it further to examine the financial [performance situation of manufacturing companies in Iraq.

Alamri (2019) did a study on the relationship between management accounting and organisational performance. The study is based on arguments pointing out that there are mediating factors like strategic management accounting that influence the relationship between management accounting and organisational performance. The study also shows that changes in organisational performance are through strategic management accounting facets. The findings revealed that there is a positive association between management accounting and organisational performance. However, the exact nature of facets though which management accounting affects organisational performance were not highlighted. Thus, this study empirically contributes to current studies by highlighting the facets through which improvements in organisational performance are initiated though the use of management accounting.

Highlighted the existence of either a negative or positive link between management accounting and organisational performance is subjective. This significantly holds in situations where overall performance measures are used. This is because performance is composed of both financial and non-financial measures. In a study by Hlaciuc, Vultur, Cretu and Ailoaiei (2017), it was highlighted that an interface exists between management accounting and financial performance. The study excludes the importance of non-financial measures of performance. This limits the generalisability of the obtained findings and hence leaves a gap regarding the way management accounting influences an organisation’s non-financial indicators.

Kasravi and Ghasemi (2017) integrated financial performance and organizational performance measures to assess the effects of management accounting in the banking sector. The inclusion of both performance indicators is based on the idea that neglecting the effects of management accounting on both indicators can lead to inconclusive results. Additionally, management accounting is viewed as affecting not only financial performance but also the overall performance of the entire organisation. The results provide support of the positive link between financial performance and overall performance, and management accounting. management accounting. This denotes that non-financial indicators being an aspect of overall organisational performance are bound to be positively influenced by management accounting.

Relating the effects of MAPs on one simple indicators can be an inadequate reflection of the business’ operational capacity and position. In a study by Kasravi and Ghasemi (2017) it was denoted that MAPs influences both the firm’s financial performance and organizational performance.

In a study by Matambele and van der Poll (2017) it was established that MAPs is instrumental for strategic analysis that enhances the sustainable position of the company. The findings revealed that strategic analysis is critical for providing information about the internal and external elements affecting a business’ operating activities, current and future positions. Hence, it offers various solutions of addressing these problems among others leading to improved performance. Similar findings were noted by Muktiyanto (2017) who established that firms can use MAPs to map out their current and future positions. This is vital for dealing with competitive pressure threatening the growth, survival and competitiveness of the firm.

Pavlatos and Kostakis (2018) conducted a study showing that MAPs affects a company's historical financial performance. However, this was based on ideas relating historical performance to financial measures. This excludes the importance of non-financial measures such as customer satisfaction, employee motivation etc., which cannot be measurable in financial terms. Hence, there is a need to incorporate non-financial measures in ascertaining the influence of MAPs on manufacturing companies' efficiency of both financial and non-financial performance.

Turner, Way, Hodari and Witteman (2017) conducted a study showing that MAPs plays various roles that influence hotel property performance. The study showed there is a positive link between MAPs and property performance. However, suggestions made showed that this link is mediated by strategic management. This signifies the need to incorporate strategic analysis in examining the roles of MAPs in influencing the efficiency of financial performance. A previous study by Uyar and Kuzey (2016) supports this notion and highlights that the association between performance and cost system design is mediated by management accounting. Strategic analysis becomes a tool used to regulate costs within optimum levels to ensure that revenue earned is not reduced by costs. Such helps to ensure that financial performance through high profitability levels remains relatively high to sustain operation, survive and expand operations.

Ideas shown by the reviewed empirical insights show that MAPs plays four essential roles in manufacturing companies. That is, MAPs is used for informative and decision making, performance evaluation, strategic analysis, and budgeting purposes. Hence, these roles need to be examined using related studies to determine how they are related with financial performance.

1.5.1 Information for decision making and financial performance

Corporate and operational activities details are crucial for managing a company and the availability of such information assists companies in making rational decisions. Accounting information provides widespread details about corporate activities ranging from production, costs to revenue (Zare & Shahsavari, 2012). Accounting information show the nature of internal activities of the company and is significant for managers, owners of the business and investors. Hence, its availability, management and use of significant importance. Cause-and-effect relationships existing between internal business activities can be determined using accounting information (Järvinen, 2016). Hence, the importance of accounting information in manufacturing companies cannot be downplayed.

Accounting information is used in situations where financial information does not provide sufficient details about the company (Kastberg & Siverbo, 2016). Financial information is mostly suitable for investment purposes whereas accounting information is for management purposes. In additional, financial information relies on details provided through accounting information. Nevertheless, accounting information is crucial for making designs about the business and such decisions range from short-term, medium-term and long-term decisions.

Information provide should aid firms to make the best decisions out of a choice of best possible decision scenarios. The quality of decisions made is often at times a reflection of the quality of information provided (Miyazhdenovna et al., 2020). The quality of information provided can be ascertained using measures such as availability, easiness, readiness, disclosure, timeous, relevancy, accuracy and reliability. Other studies use revenue generated and costs minimised to determine the quality of information they have to their disposal (Nguyen & Le, 2020). Quality information is vital for firms regardless of the type of business and industry the firm is operating under. Firms are always in constant competition and hence quality information fosters good decisions which aid in curbing competition and sustaining dominance. Other studies relate quality information to survival citing that it serves as a channel through which firms can devise strategies to remain competitive by curbing competition (Alsharari, 2019; Sinaga et al., 2019). In addition, quality information which causes firms to make rational decisions has been linked to growth and expansion (Hutahayan, 2020).

MAPs serves three important aspects in business and these are planning, management and controlling (Oyewo & Ajibolade, 2019). MAPs provides details about how best to manage the company in a manner that aids the attainment of stated goals and visions. Going through such processes reveals how best the company should manage its resources and funds to ensure that set targets and goals are achieved. Good management ensures that resources are being put to effective uses and being used in an efficient manner that reduces costs and maximises revenue (Uyar, 2019). This is vital for the owners of the business whose interests is to enhance value and earn a higher return on their investment. The controlling aspects are inherent in ensuring that set targets and goals are achieved, resources are being put to effective uses and being used in an efficient manner, and shareholders earn a higher return on their investment.

These ideas do therefore, depict the vitality of MAPs in providing essential information needed to plan, manage and control a business. Hence, they also emphasise on the importance of MAPs in business. Both the success, survival and growth of the company lie in its ability to plan, manage and control and these functions are made feasible through information provided using MAPs. This is what rationality in decision making implies and manufacturing companies capable of using such information to make rational decisions can easily attain set targets by devising effective strategies. The benefits of such activities are not only confined to firms but also extends to the entire economy as the firms grows and establishes branches around the country. Business success is established on the verge of good decisions while economic progress is established from having good and successful companies.

1.5.2 Performance evaluation and financial performance

MAPs rely on financial details and enables the use and application of quantitative measures of performance (Uyar, 2019). A series of tests and examinations are vital for determining as to whether managers are performing their duties well. MAPs are an important tool for determining management’s capacity to manage the business in a beneficial manner that enhances stakeholders’ and shareholders’’ interests.

Meanwhile, progressive checks through account ting methods and strategies such as MAPs are crucial for determining as to whether the business will be able to accomplish its goals and attain set visions. Thus, quantitative measures provided through management accounting are essential for determining the performance of the business as a whole (Pasch, 2019).

Evaluating the entire business performance is crucial especially in modern times where business environments are characterised by various natures of uncertainties and challenges undermining both performance and growth. Firms must be capable of effectively measuring and evaluating their performance in relation to the performance of other businesses (Alsharari, 2019). Highly competitive business environments require that the performance of the business be evaluated against that of its competitors.

Performance evaluation evaluates both the business' performance and its managers performance levels. Both can be actively conducted using information provided through MAPs. Thus, these ideas depict that MAPs serves an essential role in manufacturing companies of evaluating both the business' performance and its managers.

Indicators such as return on assets (ROA) provide useful information of how managers are using the business' assets (Kbelah, Amusawi & Almagtome, 2019). A high ROA is thus an indication of managers' capacity to draw more revenue from using a company's resources. Return on equity (ROE) measures managers' effectiveness regarding the use of shareholders' equity. That is, it determines how much a dollar in equity generates revenue (Hariyati, Tjahjadi & Soewarno, 2019). Hence, a high ROE indicates managers' capacity to generate more profits from each single dollar of equity invested in the business. Hence, ROA and ROE serve as vital performance measurement and evaluating tools crucial to the operation, survival, growth and success of the company.

Quantitative measures of performance can be used to measure and evaluate the business' performance in relation to economic growth (Kliestik et al., 2020). This is done to determine the implications of economic activities on the activities of the business. One way or the other, economic data provides useful information which the business can use to evaluate its goals and set targets.

Performance evaluation measures are used to evaluate the performance of the busines in a number of ways. Capitalisation is a vital measure of the business and businesses must be well capitalised to sustain operations (Adigbole, Osemene & Fakile, 2019). Under capitalised businesses have challenges in sustaining operations and meeting obligations. Problems can increase when the firm does not have enough capital to invest in profitable and future projects. This reduces the firm's capacity to generate more returns in the future. Hence, capitalisation is positively tied to the financial performance of the firm. However, optimum capitalisation is essential in ensuring that ineffective accumulation of capital does not cost the firm either in capitalisation costs or ineffective use of capital funds.

Businesses need to be evaluated in terms of liquidity to ensure that the firm is liquid enough to meet short terms and long term obligations (Kabir, 2019). The inability to meet obligations has disastrous effects on the firm. Illiquid firms have been established to be having poor financial performance levels (Järvinen, 2016; Kastberg & Siverbo, 2016). Problems of bankruptcy and dissolution have been established to be prominent among illiquid companies (Miyazhdenovna et al., 2020).

In overall, performance evaluation measures are essential for evaluating the overall performance of the business together with that of its managers. This is crucial for getting a clear and detailed insights of the company's performance to survive, sustain operation, and expand operations in the future.

1.5.3 Strategic analysis and financial performance

Strategic analysis is the key to enhancing financial performance and companies around the world can justify their use of MAPs towards fulfilling this purposes. The reasons can be linked to attaining and sustaining performance levels (Alsharari, 2019; Nguyen & Le, 2020). In markets were firms are constantly competing for resources, funds and customers, strategic analysis can be used to provide information about how companies can strategically position themselves to attain these aspirations.

Strategic analysis provides useful information about costs structures and how to regulate them to minimise costs and maximises revenue. The inability of manufacturing companies to minimise costs causes them to lack competitiveness and can lose a market share if not dominance to their counterparts (Sinaga et al., 2019). MAPs can thus be used in such circumstances to reveal to the companies which strategies are needed to regulate their costs to sustainable levels.

Rational decisions are formulated on the basis of good information and MAPs can serve just like that. Questions can be asked as to which alternatives the companies should focus on or spend more resources towards. Using a series of accounting methods, MAPs can shed more light regarding the nature of costs, production units and revenue inflows are linked to each alternative (Hutahayan, 2020). Such becomes a good bases on which companies can determine the best optimum production or level services to make normal profits or maximise their revenue.

The importance of MAPs for strategically positioning the company helps to solidify market gains and ensure that the companies continues to develop to better levels (Oyewo & Ajibolade, 2019). However, such can be difficult when insufficient information is available. Such information can be sourced through MAPs using company records and financial statements.

Changes in the operational environment necessitate the a huge demand for good strategic analysis of the current and future position of the firm (Uyar, 2019). This is linked to good decision making which demand changes in formulation strategies and base of choosing between two or more outcomes. Thus, effectiveness in choosing the best operational units, targets, markets, industry, products and services will enhances the quality of decisions made. Subsequently, this enhances the efficiency of financial performance and the overall performance of the organisation.

Constant changes in the business environment are inevitable and this implies that probable risks emanating from such changes will always befall on firms. As a result, strategic analysis is important for identifying probable risks emanating from changes in the business environment (Pasch, 2019). Furthermore, strategically positioned companies are highly positioned top take advantage of risks posed by market and industrial changes. Strategically positioned firms can make huge returns (profits) in both good and bad market and industry conditions as opposed to their counterparts. This is because strategic analysis positions them ahead of their competitors and cause them to capitalise on their competitors shortfalls.

Strategic decision-making is vital for it influences the future position of the firm. Strategic analysis incorporates both short-term and long-term plans of the firm (Alsharari, 2019). Strategic analysis results in improvements in both financial performance and overall performance because it considers changes and influences of both the internal and external environment on the operational capacity and position of the firm. This positions the firm to deal with any challenges that emanates during the course of performance and provides solutions to deal with such challenges. More so, competitive strategies that solidify a firm's competitive position in the market and industry are also formulated on the basis of good operating strategies.

Effective strategic analysis relies on the firm's capabilities and resources regarding their vital support, use and probable outcomes. This relates to decision making and plans of the firm regarding operational capacity, performance and position. Hence, strategic analysis is instrumental in making rational decisions that boosts the potential abilities of the firm to achieve outstanding results in both the short-term and long term.

1.5.4 Costing techniques and financial performance

Adler, Everett and Waldron (2000) drew information from companies in New Zealand with the aim of determining the types of management accounting strategies used by manufacturing businesses. Significant differences in preferences between ABC and target costing methods were found to exist among manufacturing companies in New Zealand. The findings also showed that companies were highly using traditional management accounting methods as opposed to new methods. Established reasons linked these aspects to convenience and attention to detail and showing the potential benefits of using MAPs in manufacturing businesses. However, Kbelah, Amusawi and Almagtome (2019) dismisses the use of traditional methods citing that they do not yield much results and suggested that companies use advanced methods. Hence, Adler recommends that companies uses methods such as strategic management accounting which provides detailed information about business activities. In addition, methods like strategic management accounting were viewed as assisting companies to make strategic decisions that positions them for growth and success. Thus, the use of MAPs by companies in the Kurdistan region will be linked to the importance of its tools towards decision making and performance.

Hariyati, Tjahjadi and Soewarno (2019) noted that MAPs is used for various reasons and that its development has contributed to it being used for numerous purposes. In other words, new and better uses of MAPs have been developed and some rely on old principles while others use new principles to shape how its contributes to improved performance. This relates to the idea of having both traditional and modern MAP methods or preferring either ABC costing or target costing. The study findings were based on information collected from Indian corporations and it was noted that MAPs is widely used for budgeting purposes. This is because of its capacity to provide good benchmarking ideas about the companies.

Budgeting and costing roles played by MAPs were viewed to be similar in countries like Japan just as in other countries. Though budgeting and other costing methods are differently used in companies, they do serve as standard performance measurement and evaluation tools. This is critical for use in companies around the world and instrumental for their success and growth. With these ideas in mind, the same constructs can be applied to companies in the Kurdistan Region of Iraq highlighting how they can use MAPs to fulfill these roles and obligations.

Kbelah, Amusawi and Almagtome (2019) reiterated that business corporations aim to achieve various goals and that these goals differ from one entity to another. Consequently, business managers were observed to be using various performance indicators for various purposes. Most importantly, little significance was attached to profitability as compared to cash flows which were considered to be highly essential among companies in UK.

Kliestik et al. (2020) discovered that the use of MAPs for budgeting purposes among SMEs in UK were limited. Such was in support of arguments against the idea that MAPs is uniformly valued and used in small and large companies. The results of the study depicted that MAPs plays different roles in small and large companies. These findings can help to provide a better understanding when the idea of industrial sectors is considered. In other words, the argument of this study is strictly based on the idea that the roles of MAPs will be same in manufacturing companies. This is because manufacturing companies in the Kurdistan Region are not struggling as they are performing quite well though not well advanced and innovated as others in different countries. MAPs will thus, be important for showing trends in manufacturing companies' activities and performance. Besides, companies can use it to monitor and regulate their performance levels. This is essential in modern business practices as it assists in solidifying dominance or containing a certain market position.

A study by Miyazhdenovna et al. (2020) highlighted that there restricted roles to which MAPs are used and thus, revealing that there are specific predetermined uses of MAPs in business. This idea supports the notion of restricted MAPs to (1) information and decision making roles, (2) performance evaluating roles, (3) strategic analysis roles, and (4) budgeting roles. Hence, the study model will be based on these four model variables and the aim will be to assess how MAPs' fulfillment of these roles helps to improve the efficiency of financial performance.

Ideas shown through the reviewed details reveals that these roles are bound to commonly exist within companies either small or large. Hence, using these variables to develop a conceptual framework upon which the efficiency of financial performance would be assessed would be instrumental in academic studies. Knowledge and understanding aspects will be highly observed through this study and furthermore the study will have numerous practical and managerial implications on manufacturing companies.

Using quantitative financial measures in related studies has in most cases limited the development of new knowledge. Non-financial indicators especially those that examine the efficiency of financial performance are not given much preferences in academic studies. The study addresses these issues in detail and uses information collected from industrial companies in Iraq to answer related questions and find strategic measures to enhance the role of MAPs in manufacturing companies.

Though studies on the role of MAPs in improving organisational performance are widely concentrated in countries like UK, America, Jordan and Nigeria (Jarvis et al., 2000).

New studies related the same ideas are emerging as well. This one contributes to such efforts by specifically drawing information from companies In Northern Iraq. Thus, the originality of this study is evidenced through these contributions.

1.6 Hypothesis development

Studies have of late highlighted that management accounting roles are derived from its objectives and uses (Gerdin & Greve, 2004; Hawkes et al., 2003; Zare & Shahsavari, 2012). That is, management accounting is used for strategic analysis, performance evaluation, budgeting, informative and decision making and cost management purposes. As such, this implies management accounting serves four important purposes which assist in enhancing financial performance.

The initial role of management accounting is presumed to assist with the strategic analysis of the business' activities (Balta et al., 2009; Mussoa & Francioni, 2012). Such involves examining areas where organisational resources can be put to effective use. That is, management accounting seeks to maximise efficiency and effectiveness in the use of organisational resources. This involves the strategic allocation of resources to activities that offer such opportunities away from activities that waste such resources. Such enhances organisational performance and hence we can contend that the strategic use of management accounting enhances organisational performance. This can be expressed in the form of a hypothesis as follows;

- **H_1:** The strategic use of management accounting has a positive effect on organisational performance.

Management accounting is vital for assessing and evaluating organisational performance through the use of accounting tools such as Activity Based Costing and other traditional costing methods (Barton and Gordon (2008; Branch, 2000). Performance evaluation is conducted to ensure that the organisation achieves its stated goals. It further helps to identifying underperforming products, departments and managers. Hence, it allows corrective action to be taken to enhance organisational performance. This relationship can be expressed in the form of a hypothesis as follows;

- **H_2:** The performance evaluation role of management accounting has a positive effect on organisational performance.

It is believed that management accounting provides detailed information about the business' activities (Zare and Shahsavari (2012). Such information shows a detailed insight of production and cost activities. This information is vital for making crucial decisions pertaining to both performance and long-run survival. A study by Eierle and Wolfgang, (2013) contend that the available of good and reliable information enhances the quality of decisions made and thereby enhancing organisational performance. Thus, a hypothesis can be formulated as follows;

- **H_3:** The informative and decision-making role of management accounting has a positive effect on organisational performance.

Budgeting activities are conducted so as to reduce cost and maximise revenue (Adler, Everett & Waldron, 2000). Of which cost minimisation and revenue maximization have positive effects on organisational performance. Such is similar to cost management whose main focus is to minimise costs and maximise revenue. This can be expressed in the form of hypotheses as follows;

- **H_4:** Budgeting activities of management accounting have a positive effect on organisational performance.

1.7 Conceptual framework

In line with the literature reviewed in this study, this study therefore proposes to examine the following conceptual framework;

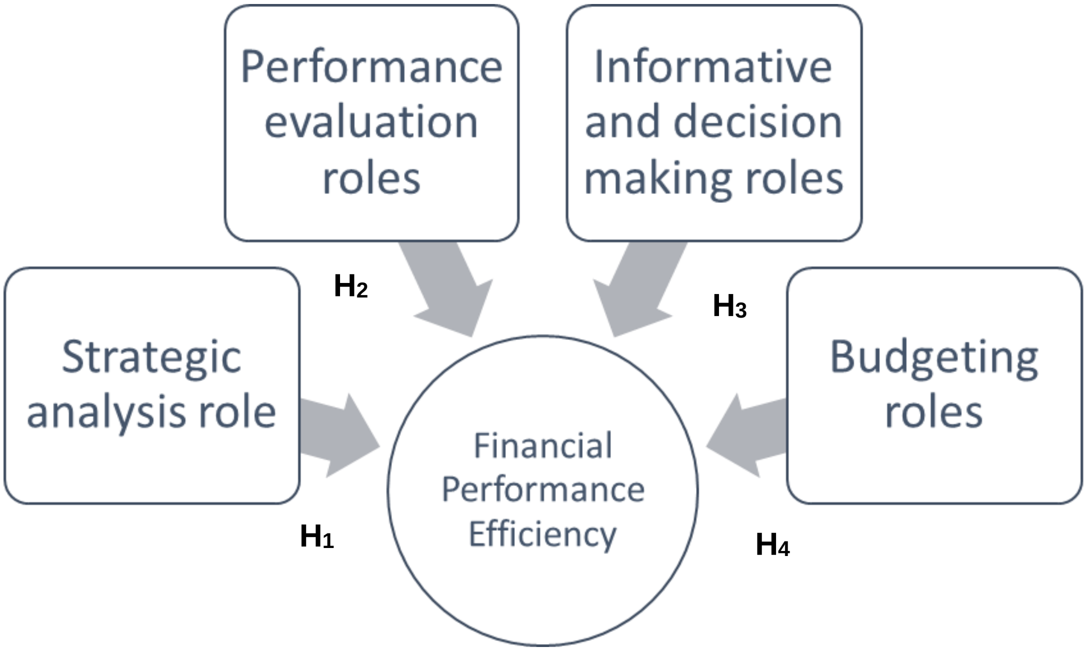

Figure 1.1: Conceptual framework

CHAPTER TWO

RESEARCH METHODOLOGY

2.1 Research design

The study used a quantitative approach to accomplish the highlighted research goals along with the proposed hypotheses. Such involved the application of statistical methods which encompass the likes of regression analysis, descriptive statistics and reliability tests. Therefore, this chapter is instrumental for devising strategies needed to address issues about managerial accounting and its role on estimating the efficiency of financial performance.

2.2 Study participants

The study participants were drawn from manufacturing companies based in Erbil, Kurdistan Region of Iraq. The population comprised of a critical purposive sample of 100 management accountants from 5 manufacturing companies. Purposive sampling is the deliberate selection of a particular sample size that meets the intended purpose or focus of the researcher (Etikan, Musa & Alkassim, 2016, p.1). Purposive sampling was used in this study because it generalisations could be made about the management accountants (Etikan & Bala, 2017). In addition, purposive sampling proved to be essential because it offered critical details about the performance of the manufacturing companies (Taherdoost, 2016).

2.3 Research instrument

The data that was used in this study was collected using a questionnaire that was taken from a study by Butterfield (2016) and Bitok (2017). However, changes were made to the questionnaire to enhance its validity and reliability. A five-Likert scale was used to measure all the variable elements pertaining to the roles of management accounting in manufacturing companies (see Table 2.1).

Table 2.1: Likert scale for management accounting roles

The response	**Strongly disagree**	**Disagree**	**Neither agree Nor disagree**	**agree**	**Strongly agree**
Value	5	4	3	2	1

2.4 Data analysis procedures

A total of 103 responses were collected from the 5 manufacturing companies located in Erbil. Statistical Package for Social Sciences (SPSS) was used to carry out the data analysis. The process involved estimating a regression model that determines how the management accounting roles affect the efficiency of manufacturing companies' financial performance. The model was estimated using ideas provided by the developed conceptual framework shown by Figure 1. That is, financial performance efficiency (EFP) is a function of management accounting roles {strategic analysis role, performance evaluation roles (PER), Informative and decision-making roles (IDM), budgeting roles (BR), and cost management role (CM)}. this can be expressed in the form of an equation as follows;

EFP = F(SAR, PER, IDM, BR, CM) ………………………………………………….. (1)

Applying regression analysis concepts set forth by Gujarat (2013) involving the use of a constant (α), coefficients (β_1 to β_5) and an error terms (μ), the following regression model was obtained;

EFP = α + β_1**SAR** + β_2**PER** + β_3**IDM** + β_4**BR** + β_5**CM** ………………………………….. (2)

The estimated regression model shown by expression 2 led to the development of the following hypotheses;

- **H_1:** The strategic use of management accounting has a positive effect on organisational performance.
- **H_2:** The performance evaluation role of management accounting has a positive effect on organisational performance.
- **H_3:** The informative and decision-making role of management accounting has a positive effect on organisational performance.
- **H_4:** Budgeting activities of management accounting have a positive effect on organisational performance.
- **H_5:** Cost management activities of management accounting has a positive effect on organisational performance.

2.5 Reliability tests

The study applied Cronbach's alpha test to assess the internal consistency of the model variables. Variables with an alpha value equal to or more than 0.70 were regarded as having a high internal consistency (Cooper, Schindler & Sun, 2006). This implied that the variables were highly reliable to provide explanations about the managerial accounting and its role on estimating the efficiency of financial performance.

2.6 Ethical procedures

The researcher will apply for ethical approval before commencing the study and the questionnaire will be subject to a series of validity tests to enhance its validity and make sure that it abides by sound research ethics. In addition, the data will not be made available to any individual other than those specified or granted privileges by the research institution.

CHAPTER THREE

DATA ANALYSIS

3.1 Introduction

83 manufacturing companies employees completed and returned the questionnaires. Thus, data analysis and discussion of findings were based on the analysis of the 83 responses. The aim to is provide details about the use of managerial accounting and its role in estimating the efficiency of financial performance. This chapter is instrumental for proposition recommendations to improve the performance of manufacturing companies. It also assist in suggesting future areas of research pertain to managerial accounting and its role on estimating the efficiency of financial performance.

3.2 Demographic profiling

The manufacturing companies employee's demographic profile was produced using the collected data and analysed using frequencies and percentages. The computed findings depicted that the employees were made up of 44 female employees and 39 male employees. 50.6% of the employees were single and 44% were married (see Table 3.1).

37.3% of the employees who worked for the manufacturing companies were aged between 26 to 33 years and only 7.2% of the employee were above 42 years. 44.6% of the employees acquired MSc/MA degrees while 22.9% and 32.5% attained diplomas and BSc/BA degrees respectively. Such observations denote that the manufacturing companies were qualified to serve the manufacturing companies by fulfilling the prescribed organisation duties.

Table 3.1. Demographic profiling

Variable	Description	Count	Percentage
Gender	Male	39	47.0
	Female	44	53.0
	Total	**83**	**100**
Age group	18-25 years	24	28.9
	26-33 years	31	37.3
	34-41 years	22	26.5
	42 years +	6	7.2
	Total	**83**	**100**
Educational qualification	Diploma	19	22.9
	BSc/BA	27	32.5
	MSc/MA	37	44.6
	Total	**83**	**100**

3.3 Analysis of the organisational features of manufacturing companies

Differences in the employees' level of experiences were observed and it was noted that 46 employees worked for the manufacturing companies for 6 to 10 years. The findings are shown in Figure 3.1.

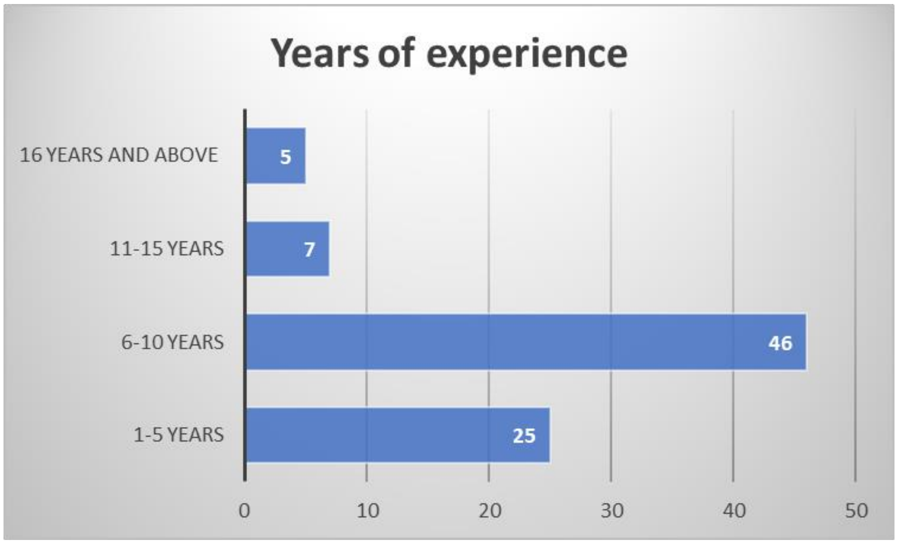

Figure 3.1. Analysis of the organisational features of manufacturing companies

25 employees worked for the companies 1 to 5 years, 7 and 5 employees for 11 to 15 days and 16 years respectively. The demographic profile shows that the manufacturing companies had 41 junior managers and 42 senior managers. 53 employees were based at the head office and 30 employees were working at branch offices (see Figure 3.2).

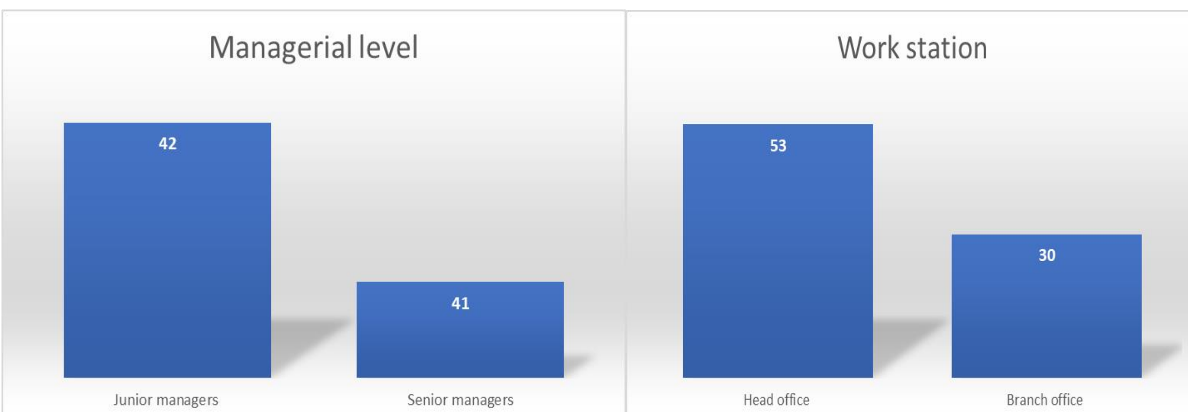

Figure 3.2: Managerial level work employees' work station

Differences were noted regarding the use of reports containing financial information by the manufacturing companies. 83% of the reports were used annually, 15% quarterly and 2% semi-annually. Such depicts that the use of the financial reports possibly varies because of the importance they are attached to causing managers to use certain reports over others.

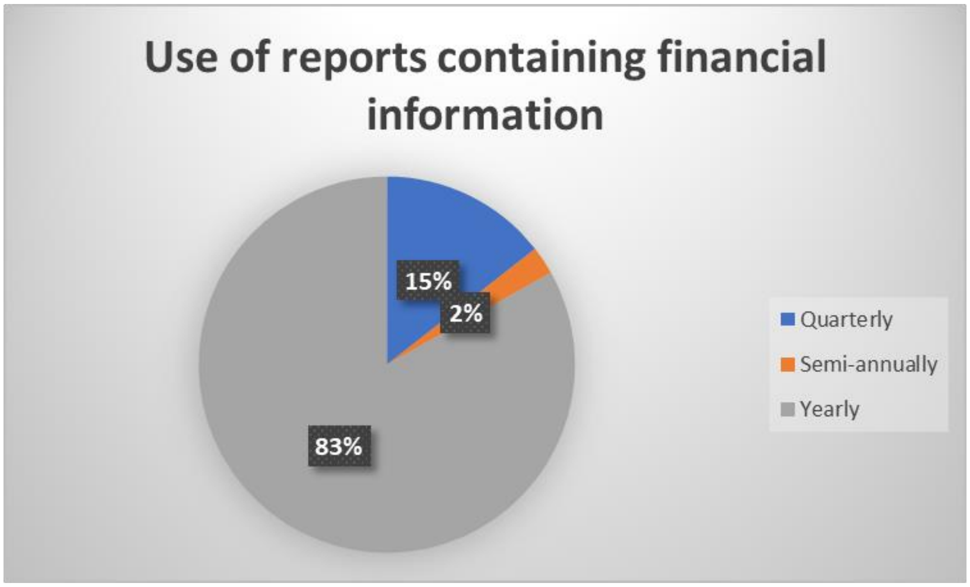

Figure 3.3: Use of reports containing financial information

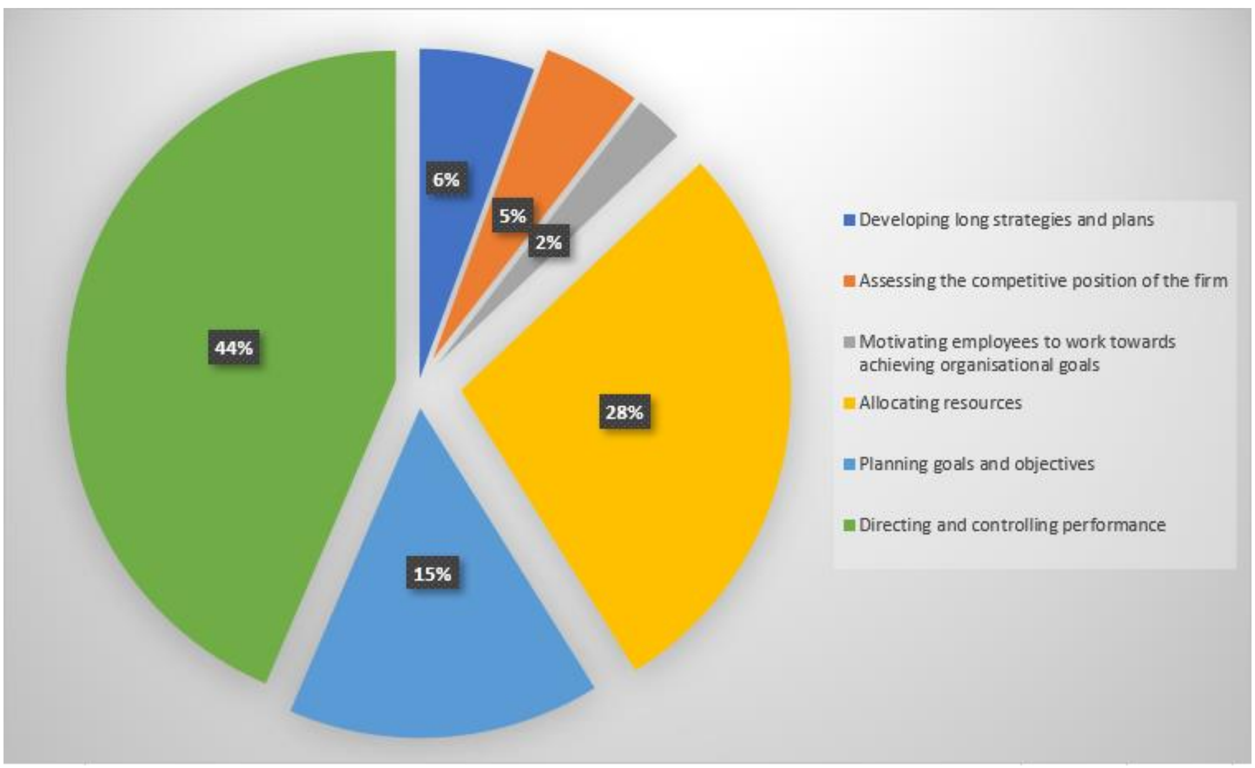

Figure 3.4: Use of management accounting information

The established findings that management accounting information was being used for diverse purposes by manufacturing companies in Iraq. As such, 44% of the employees indicated that they significantly use management accounting information to direct and control performance of the company. 28% of the employees indicated that they use to allocate organisational resources. 15% of the employees highlighted that they use it to plan and formulate organisational goals. Insignificant uses of management accounting information were noted to be related to purposes such as developing long term strategic plans (6%), assessing the competing position of the firm (5%), and motivating employees to work towards achieving organisational goals (2%).

The use of management accounting information is attached to the quality of information it provides. Such can be supported by the information provide in Figure 3.5 which shows that there were variations in ideas regarding ideas about the quality of management accounting information. A notable number of 28 employees highlighted that management information is of high quality when the information contained is accurate. 20 employees indicated that the information has to be usable for the reports to be considered as of high quality. 13 expressed that the information should be adequate and aspects that govern the quality of the information and their importance to it declined to their lowest of 2.

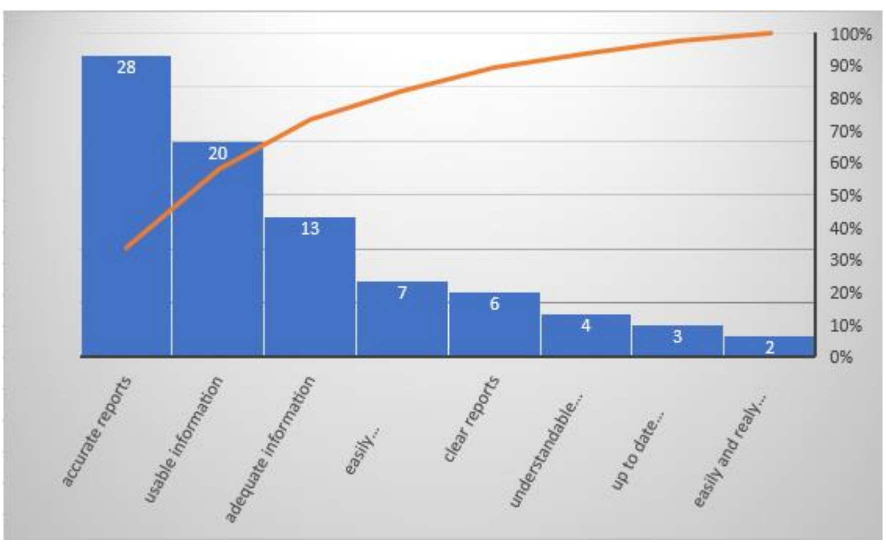

Figure 3.5: The quality of management accounting information

That is, considering that the information has to be easily and readily available plays an insignificant role to enhancing the quality of management accounting information (see Figure 3.5).

3.4 Frequency examinations of management accounting roles

The study used frequency tabulation to analyse the distribution of the manufacturing companies' employees about the importance and roles of management accounting in manufacturing companies. As a result, frequency tabulations were done using a 5-point Likert scale for all the management accounting independent variables (strategic analysis role, performance evaluation roles, Informative and decision-making roles, budgeting roles and cost management role).

3.5 Descriptive analysis of the manufacturing companies' financial performance

A descriptive analysis of the manufacturing companies' was conducted using mean and standard deviation. Insights from the analysis shown in Table 3.6 reveals that the employees highly agreed that management accounting helps to increase the company's service delivery (M:=4.072: STD:=1.247).

Table 3.2. Analysis of the manufacturing companies' financial performance

	Mean	Std. Dev.
Management accounting helps to increase the company's cash flow growth rate	3.602	1.422
Management accounting helps to increase the company's operating profit growth rate.	3.639	1.470
Management accounting helps to increase the company's sales growth rate.	3.627	1.628
Management accounting helps to increase the company's service delivery.	4.072	1.247
Management accounting helps to increase the company's numbers of delivery on time.	3.506	1.017
Management accounting helps to increase the company's product quality.	3.807	1.041
Management accounting helps to increase the company's level of productivity.	3.988	0.956

The employees also indicated that the notable contribution of managerial accounting to the performance of the companies was through increases in productivity (M:=3.988: STD:=0.956). The employees lowly rated the effects of management accounting on the financial performance indicators like numbers of delivery on time, cash flow growth rate and operating profit growth rate. The related respective means scores were 3.506, 3.602 and 3.639. Huge variations were linked to increases in the companies' financial performance caused by increase in sales growth as noted by a high standard deviation of 1.628. This suggests that positive changes in the sales growth have huge responsive effects on the companies' financial performance.

3.6 Co-changes in management accounting elements and financial performance

Järvinen (2016) established that there are co-movements that characterised management accounting roles. As such, the study applied the Pearson correlation coefficient test to determine how management accounting roles and the efficiency of financial performance were correlated.

Table 3.3: Correlation coefficient test

	EFP	PER	SAR	B**R**	ID**M**
EFP	**1**				
PER	0.677*	**1**			
SAR	0.221**	0.480*	**1**		
BR	0.660*	0.343*	0.003	**1**	
IDM	0.659*	0.973*	0.435*	0.364*	**1**

*, ** Correlation significant at 0.01 and 0.05

Strategic analysis role (SAR), Performance evaluation roles (PER), Informative and decision-making roles (IDM), Budgeting roles (BR), and Cost management role (CM).

A significant positive correlation at 0.05 was observed between the strategic analysis role of management accounting and the efficiency of financial performance of 0.221. The budgeting role of management accounting was insignificantly and positively correlated with its strategic analysis role by 0.003. The other variables were significantly correlated at 0.01 level. A high positive and significant correlation of 0.973 was observed between management accounting informative and decision-making and performance evaluation roles. This suggests that improvements in performance evaluation is associated with huge availability of information needed to make decisions by organisational managers.

3.7 The effects of management accounting on the efficiency of financial performance

The study aims at to answer the question ‘how does management accounting affects the efficiency of financial performance. A regression analysis was used to provide answers to this question and this was done using ideas provided through the study’s conceptual framework.

The initial findings showed that management accounting’s performance evaluation roles have a positive effect on the efficiency of management accounting’s financial performance. That is, improvements in management accounting’s performance evaluation roles by 1 unit results in an improvement in the efficiency of financial performance by 1.units. The results are supported by previous related examination made by Matambele and van der Poll (2017) showing that challenges undermining organisational performance are addressed when companies improve their performance evaluation abilities.

Management accounting’s role towards enhancing in informative and decision-making adversely affected the manufacturing companies’ efficiency of financial performance by -0.386. This is in contrast to ideas shown by earlier related showing that the availability of good information enhances the rationality and quality of decisions made by companies (Muktiyanto, 2017). This can possibly because manufacturing companies will be spending huge financial resources and investing in information and decision making tools. Such can be costly in the short-run and lead to a decline in manufacturing companies’ efficiency of financial performance.

Table 3.4. Frequency analysis of management accounting's strategic analysis role

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-0.821	0.453		-1.812	0.074
Performance evaluation roles	1.062	0.385	0.803	2.758	0.007
Informative and decision-making	-0.375	0.383	-0.279	-0.978	0.331
Budgeting roles	0.618	0.090	0.486	6.834	0.000
Strategic use of management	-0.081	0.136	-0.046	-0.597	0.552

Dependent Variable: financial performance efficiency

Using management accounting for strategic management purposes requires efforts, time and resources towards developing the required structures, employees and tool needed to promote and increase strategic management activities. As such, this causes manufacturing companies' strategic analysis efforts to hinder the efficiency of financial performance. A positive unit change in manufacturing companies' strategic analysis efforts causes the efficiency of their financial performance to fall by 0.065 units. This contradicts with ideas provided by Turner al. (2017).

Positive contributions were noted with the manufacturing companies' budgeting activities. A unit increase in budgeting activities caused an increase in the efficiency of manufacturing companies' financial performance by 0.604 units. This is possibly because budgeting reduces unnecessary costs and this maximises revenue. This is in line with findings provided by Pavlatos and Kostakis (2018) which showed that budgeting plays a crucial role of enhancing organisational efficiency and effectiveness.

Strategic analysis results in improvements in both financial performance and overall performance because it considers changes and influences of both the internal and external environment on the operational capacity and position of the firm. This positions the firm to deal with any challenges that emanates during the course of performance and provides solutions to deal with such challenges. More so, competitive strategies that solidify a firm's competitive position in the market and industry are also formulated on the basis of good operating strategies.

3.8 Reliability tests

Cronbach's alpha estimations conducted using SPSS revealed that variables efficiency of financial performance, performance evaluation roles and budgeting roles were Highly reliable with alpha values of 0.757, 0.735 and 0.740.

Variables Informative and decision-making, and Strategic use of management were extremely reliable with alpha values of 0.859 and 0.837 respectively. Hence, conclusions were reached that the estimated model was highly valid and reliable in addressing issues pertaining to managerial accounting and its role on estimating the efficiency of financial performance.

Table 3.5: Reliability tests

Variable	Cronbach's alpha	Decision
Efficiency of financial performance	0.757	Highly reliable
Performance evaluation roles	0.735	Highly reliable
Informative and decision-making	0.859	Extremely reliable
Strategic use of management	0.837	Extremely reliable
Budgeting roles	0.740	Highly reliable

Hypothesis results were obtained from the estimated regression model shown in Table 3.9. The results do infer that two null hypothesis about MAPs' informative and decision-making, and strategic use of management accounting activities roles can be accepted at 0.05 level. Hence, conclusions were made that both the informative and decision-making, and strategic use of management accounting roles have no significant positive effects on financial performance.

It was concluded that the performance evaluation and budgeting activity roles of management accounting have significant positive effects on financial performance. Hence, this implies that manufacturing companies need to continue and enhance the use of MAPs for performance evaluation and budgeting to enhance their financial performance levels.

Table 3.6. Hypothesis results

Hypothesis	Test method	OLS Probability	H_0 Decision
The performance evaluation role of management accounting has no significant positive effects on financial performance.	OLS	0.007	**Reject H_0**
The informative and decision-making role of management accounting has no significant positive effects on financial performance.	OLS	0.331	**Accept H_0**
Budgeting activities of management accounting have no significant positive effects on financial performance	OLS	0.000	**Reject H_0**
The strategic use of management accounting has no significant positive effects on financial performance.	OLS	0.552	**Accept H_0**

CHAPTER FOUR

CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FUTURE STUDIES

4.1 Conclusions

The main Ficus of the study was to examine the role of management accounting in influencing the efficiency of financial performance. The study was conducted using insights collected from manufacturing companies in the Kurdistan region of Iraq. The established results from the study base on the arguments that the roles of management accounting in business are strategic analysis, performance evaluation, budgeting role and information and decision making roles.

The initial findings showed that management accounting's performance evaluation roles have a positive effect on the efficiency of management accounting's financial performance. The results are supported by previous related examination showing that challenges undermining organisational performance are addressed when companies improve their performance evaluation abilities. Performance evaluation measures are essential for evaluating the overall performance of the business together with that of its managers. This is crucial for getting a clear and detailed insights of the company's performance to survive, sustain operation, and expand operations in the future. Hence, low performance results result in corrective action being taken to address the related problems. Thus, performance evaluation causes an improvement of both the efficiency of financial performance and performance.

Further examinations made showed that management accounting's role towards enhancing in informative and decision-making adversely affect the manufacturing companies' efficiency of financial performance. This is in contrast to related ideas shown by earlier related studies which showing that the availability of good information enhances the rationality and quality of decisions made by companies. Manufacturing companies will be spending huge financial resources and investing in information and decision making tools. Such can be costly in the short-run and lead to a decline in manufacturing companies' efficiency of financial performance.

Using management accounting for strategic management purposes requires efforts, time and resources towards developing the required structures, employees and tool needed to promote and increase strategic management activities. As such, this causes manufacturing companies' strategic analysis efforts to hinder the efficiency of financial performance. This contradicts with related studies which depicted that there is strategic analysis enhance both financial and non-financial performance. Besides, strategic decision-making is vital for it influences the future position of the firm. Strategic analysis incorporates both short-term and long-term plans of the firm. Strategic analysis results in improvements in both financial performance and overall performance because it considers changes and influences of both the internal and external environment on the operational capacity and position of the firm. This positions the firm to deal with any challenges that emanates during the course of performance and provides solutions to deal with such challenges. More so, competitive strategies that solidify a firm's competitive position in the market and industry are also formulated on the basis of good operating strategies. The established results contradicted with the previous related studies which consider strategic analysis to be positively linked to financial performance efficiency. This is relatively true because effective strategic analysis relies on the firm's capabilities and resources regarding their vital support, use and probable outcomes. This relates to decision making and plans of the firm regarding operational capacity, performance and position. Hence, strategic analysis is instrumental in making rational decisions that boosts the potential abilities of the firm to achieve outstanding results in both the short-term and long term.

Positive contributions were noted with the manufacturing companies' budgeting activities. A unit increase in budgeting activities caused an increase in the efficiency of manufacturing companies' financial performance. This is possibly because budgeting reduces unnecessary costs and this maximises revenue. This is in line with findings provided by related previous studies which showed that budgeting plays a crucial role of enhancing organisational efficiency and effectiveness. Budgeting activities aid in minimising costs and maximising revenue and hence, they enhance both the financial and overall organisation performance.

The study is important because it shows and emphasises that changes in the operational environment necessitate the a huge demand for good strategic analysis of the current and future position of the firm. This is linked to good decision making which demand changes in formulation strategies and base of choosing between two or more outcomes. Thus, effectiveness in choosing the best operational units, targets, markets, industry, products and services will enhances the quality of decisions made. Subsequently, this enhances the efficiency of financial performance and the overall performance of the organisation.

Meanwhile, the hypothesis results obtained from the estimated regression model showed two null hypothesis about MAPs performance evaluation and budgeting activities roles can be rejected. Hence, the study concludes that both the informative and decision-making, and strategic use of management accounting roles have no significant positive effects on financial performance. The required managerial strategies would to be to put measures that eliminate shortfalls in manufacturing companies' informative and decision-making, and strategic use of management accounting activities. On the other hand, It was concluded that the performance evaluation and budgeting activity roles of management accounting have significant positive effects on financial performance. Hence, this implies that manufacturing companies need to continue and enhance the use of MAPs for performance evaluation and budgeting to enhance their financial performance levels.

4.2 Recommendations and managerial implications

Given the established ideas showing that the performance evaluation and budgeting roles of management accounting were essential for enhancing manufacturing companies' efficiency of financial performance. Improvements in the informative and decision-making, and strategic roles of management accounting are adversely linked to a decline in the manufacturing companies' efficiency of financial performance, the study therefore suggests the following measures;

- Performance measurement and evaluation aspects of management accounting must be centered on evaluating both the managers' performance and the overall performance of the organisation. This is essential for providing a detailed insight of current and future, market and industrial position of the company. These measures should include aspects that measure the company' survival, sustaining competitive pressure, and improving growth opportunities to enhance the company's financial and overall performance.
- Since budgeting roles enhance the efficiency of financial performance, most cost cutting measures and profit maximisation strategies are needed to further enhance the companies' revenues and boost their capitalisation levels.
- High information and decision making costs need to be reduced by investing in new, better and effective methods of collecting firm, market and industry information. This possibly requires using internet sources which are fast and cost effective ways of obtaining information.
- Manufacturing companies' must internal and external environmental analysis to enhance the effectiveness of their strategic analysis to improve their financial performance. This is because changes in both the internal and external environment affect the reliability and validity of the financial and non-financial performance measures causing them to provide inadequate description of the firm and environment.

The study results have huge managerial implications. Notably, they imply that both modern and traditional MAPs should be incorporated together to enhance the companies' strategic analysis, informative, performance evaluation and budgeting roles.

However, caution should be placed to ensure that they are changed in line with changes in market, industry and economic environments to enhance their effective capacity to enhance financial performance. Both financial and non-financial measures are critical for providing a clear and better understanding of the manufacturing companies' operational capacity and position. Hence, they should be integrated together to analyse how MAPs affects them.

4.3 Suggestions for future studies

It was noted during the course of the study that there is a strong connection between MAPs and both financial performance, and the overall performance of the firm. Thus,. Future studies need to integrate both individual and overall measures of firm performance to assess how they are influenced by MAPs. Furthermore, secondary data in the form of sales, size, growth, performance, liquidity and capitalisation were observed as instrumental in the success of modern corporations. Hence, future studies need to apply econometric models tom assess how MAPs and these variables affect both the financial performance, and the overall performance of the firm.

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LIST OF APPENDICES

Appendix I: Research questionnaire

Near East University

INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF BANKING AND ACCOUNTING

MANAGERIAL ACCOUNTING AND ITS ROLE ON ESTIMATING THE EFFICIENCY OF FINANCIAL PERFORMANCE

Dear participant,

The questionnaire below is designed as part of my masters' thesis study that focuses on ***Managerial Accounting and its Role on Estimating the Efficiency of Financial Performance***. Information that will be obtained as a result of the completed questionnaires will be used for scientific purposes only. Under no circumstances will your contributions, other than general findings, be shared with other persons or organizations.

Your kind assistance on the completion of the questionnaire is needed which will directly affect the outcome of my thesis.

Thank you for your time.

Yours faithfully,

Mohammed Ghazi Rafaat

Section I

Personal details

Tick as you see appropriate (√).

1. Gender?

☐ Male ☐ Female

2. What is your age group?

☐ 18-25 years ☐ 26-33 years

☐ 34-41 years ☐ 42 years and above

3. What is your educational qualification?

☐ Diploma ☐ BSc/BA

☐ MSc/MA ☐ PhD

4. Where is your work based?

☐ Head office ☐ Branch office

5. How long have you been working for the company?

☐ 1-5 years ☐ 6-10 years

☐ 11-15 years ☐ 16 years and above

6. What is your managerial level?

☐ Junior manager ☐ Middle manager

☐ Senior manager

7. Do your reports contain financial information at work?

☐ No ☐ Yes

8. How often in general do you use reports containing financial information at work?

☐ Monthly ☐ Quarterly

☐ Semi-annually ☐ Yearly

Section II: Informative section

This part seeks to acquire details about your perception towards the role of management accounting in preparing quality reports. Kindly provide your answers based on rating of 1-5 which corresponds to the following

Very important	Somewhat important	Not important	Not at all important
1	2	3	4

Tick as you see appropriate (√).

	Quality of management accounting reports	1	2	3	4
9	It is possible that I will use the information contained in the reports				
10	I am happy with the way management accounting reports are being prepared				
11	I depend on the accuracy of the published reports				
12	The information provided is up to date				
13	The required information is easily and readily available				
14	The reports are easily comprehensible				
15	The reports are clear				
16	The information contained in the reports is adequate				

This section seeks to acquire details about your perception towards the role of management accounting in decision making. Kindly provide your answers based on rating of 1-5 which corresponds to the following

I completely disagree	I disagree	neutral	I agree	I completely agree
1	2	3	4	5

Tick as you see appropriate (√).

	Financial information evaluation and uses	1	2	3	4	5
17	Developing long strategies and plans					
18	Assessing the competitive position of the firm					
19	Motivating employees to work towards achieving organisational goals					
20	Allocating resources					
21	Planning goals and objectives					
22	Directing and controlling performance					

This part seeks to acquire details about your perception towards the role of management accounting in decision making. Kindly provide your answers based on rating of 1-5 which corresponds to the following

I completely disagree	I disagree	neutral	I agree	I completely agree
1	2	3	4	5

Tick as you see
appropriate (√).

	Financial performance	1	2	3	4	5
23	Management accounting helps to increase the company's cash flow growth rate					
24	Management accounting helps to increase the company's operating profit growth rate.					
25	Management accounting helps to increase the company's sales growth rate.					
26	Management accounting helps to increase the company's service delivery.					
27	Management accounting helps to increase the company's numbers of delivery on time.					
28	Management accounting helps to increase the company's product quality.					
29	Management accounting helps to increase the company's level of productivity.					
	Information and decision making					
30	Management accounting makes it easy for managers to collect information.					
31	Information is collected on time.					
32	There are no barriers that hinder the collection information by managers.					
33	Information is collected at a relatively affordable price.					
34	Management accounting provides so many ways of collecting information.					
35	All employees can easily participate in the information collection process.					
36	Management accounting provides a better way of collecting					

	information.					
37	Various information can easily be collected.					
	Budgeting analysis					
38	Management accounting is important for reducing production costs.					
39	Management accounting is important maximising revenue collected.					
40	Management accounting is important enhancing production levels.					
41	Management accounting is important allocation resources among production activities					
42	Management accounting helps to decide which batch of products to produce.					
43	Management accounting helps to determine if the company has enough funds to produce good and services.					
44	Management accounting is important for measuring the performance of an organisation.					
45	Management accounting important for measuring the performance of production managers.					
	Strategic analysis					
46	Information provided is vital for analysis the internal business environment					
47	Information provided is vital for analysis the external business environment					
48	Provided information can be used to improve the company's competition position.					
49	Management accounting provides details about how best to allocate resources.					
50	Companies can use management accounting to decide which markets to engage in.					
51	Management accounting is important making sure that the company survives from competition.					
52	Management accounting is important making sure that the company grows in the future.					
53	Management accounting is important improving the current position of the company					

...... Thank you for your time ...

SIMILARITY INDEX

MANAGERIAL ACCOUNTING AND ITS ROLE ON ESTIMATING THE EFFICIENCY OF FINANCIAL PERFORMANCE

ORIGINALITY REPORT

11%	9%	3%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Yakın Doğu Üniversitesi Student Paper	2%
2	Submitted to University of Duhok Student Paper	2%
3	www.icommercecentral.com Internet Source	1%
4	docs.neu.edu.tr Internet Source	1%
5	hdl.handle.net Internet Source	<1%
6	core.ac.uk Internet Source	<1%
7	Submitted to Nelson College London Student Paper	<1%
8	mafiadoc.com Internet Source	<1%
9	Submitted to Nobel International Business	

THICAL APPROVAL FORM

YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK KURULU

19.01.2021

Dear Mohammed Ghazi Rafaat

Your application titled **"Managerial Accounting and its Role on Estimating the Efficiency of Financial Performance"** with the application number YDÜ/SB/2020/834 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Direnc Kanol

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.