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BINGOL UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCE

BUSINESS ADMINISTRATION DEPARTMENT

THE IMPACT OF THE USE OF MODERN MANAGEMENT ACCOUNTING IN DECISION-MAKING FOR INDUSTRIAL COMPANIES IN THE IRAQI-KURDISTAN REGION/ ERBIL

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MASTER'S THESIS

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BİNGÖL – 2018

T.C

BİNGÖL ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

İŞLETME ANA BILIM DALI

IRAK KÜRDISTAN BÖLGESI ENDÜSTRIYEL ŞIRKETLERINDE KARAR ALMADA MODERN MUHASEBE YÖNETMEN ETKİSİ

HAZIRLAYAN
JAWHAR AHMED SAEED

YÜKSEK LİSANS TEZİ

DANIŞMAN

PROF. DR.SAIT PATIR

BİNGÖL –2018

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ETHICAL AND SCIENTIFIC NOTICE

This work is prepared in accordance with the rules of thesis writing which I have prepared according to scientific ethics, traditions and all information contained in the letter, which met with scientific ethics and rules of academic carefully until the completion of the recommendation phase of the master's thesis (the impact of the use of modern management accounting in decision-making for industrial companies in the iraqi-kurdistan region/Erbil)

I announce that work has shown and utilized for each citation it consists of those that appear in the source.

JAWHAR AHMED SAEED

18/ 01/ 2018

Signature

THESIS ACCEPTANCE AND APPROVAL

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This work entitled (the impact of the use of modern management accounting in decision-making for industrial companies in the Iraqi-Kurdistan region/Erbil). Prepared by **(JAWHAR AHMED SAEED),** was found to be successful as a result of the thesis defense examination held on the date of Defense Examination and accepted by our juror as the Master's Degree in the Department of Business Admiration.

Thesis Jury Members

Chair: ....Signature: …......................

Supervisor: ....Signature: ....

Member: ....Signature: ....

CONFIRMATION

The jury determined in the 18/01/ 2018 have accepted this thesis. Session of the Board of Directors of the Institute of Social Sciences of Bingil University.

Director of the Institute

PREFACE

(The Impact of the Use of Modern Management Accounting in Decision-Making for Industrial Companies in The Iraqi-Kurdistan Region/Erbil) is emphasized in the context of consumer-focused approaches that are increasingly emphasized in maintaining the competitive position of today's businesses.

Advisor who does not give up help in preparing this work (Prof. Dr. Sait PATIR)

I would like to thank all the contributors who contributed to the person who contributed to the writing and correction of the thesis and who contributed to my education throughout my life.

While completing my work, I offer my gratitude for helping to keep my morale and motivation at a high level.

JAWHAR AHMED SAEED

18 / 01 / 2018

ACKNOLEDGMENT

After an intensive period of one year, today is the day: writing this note of thanks is the finishing touch on my dissertation. It has been a period of intense learning for me, not only in the scientific arena, but also on a personal level. Writing this dissertation has had a big impact on me. I would like to reflect on the people who have supported and helped me so much throughout this period.

I would first like to thank my colleagues from my internship at Bingol University for their wonderful collaboration. You supported me greatly and were always willing to help me.

I would particularly like to single out my supervisor at **Bingol University**, (Prof. Dr. Sait PATIR) I want to thank you for your excellent cooperation and for all of the opportunities I was given to conduct my research and further my dissertation at Bingol University in addition. I would like to thank those who supported me as a sponsorship of my study (DR. Mahmood Nooraddin, DR. Saied Qadir Faqe Ibrahim and Sarhang Abdulrazazaq), for their valuable guidance. You definitely provided me with the tools that I needed to choose the right direction and successfully complete my dissertation.

I would also like to thank my family members for their wise counsel and sympathetic ear. You are always there for me. Finally, there are my friends. We were not only able to support each other by deliberating over our problems and findings, but also happily by talking about things other than just our papers. Thank you very much, everyone.

Researcher
Jawhar Ahmed Saeed
18/1/2018

DEDICATION

This Dissertation Is Dedicated To

- To the spirit of my father, may God have mercy on him.
- To my dear mother who always supported me, God save you, my mother.
- My lover’s sister and brother.
- To my all friends in the colleagues who helped complete this dissertation.

ÖZET

Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Yuksek Lısans Tez Ozeti

Tezin Başlığı: Irak Kürdistan Bölgesi Endüstriyel Şirketlerinde Karar Almada Modern Muhasebe Yönetmen Ethisi.

Tezin Yazarı: Jawhar Ahmed Saeed

Danışman: Prof. Dr. SAIT PATIR

Anabilim Dalı: işletme

Bilim Dalı:

Kabul Tarihi:

Bu tezin amacı, Irak Kürdistan Endüstriyel şirketlerinde, karar almada modern muhasebe yönetiminin etkisini açıklamaktır. Çalışmanın popülasyonu; Irak Kürdistan'da farklı sektörlerde; üniversite, banka, teknik kurum şirketi, iş şirketi, servis, hükümet kurumlarındaki yetkililer ki bunlar; iç yetkili finansal yönetici, muhasebe yöneticilerinden oluşmaktadır. Araştırma, Irak Kürdistan endüstriyel şirketlerinin karar almada; bütçeleme, maliyet hesaplama, hedef maliyetlime, tam zamanında üretim, müşteri kârlılığı, bilanço lama, toplam maliyet yönetimi, finansal raporlama gibi kararlarda modern muhasebe sisteminin kullanımın etkisi belirlemektir.

Bu nedenle, bir anket uygulanmıştır. Anket verileri işletmelerden basit tesadüfi örnekleme yöntemine göre elde edilen 106 kişiden oluşmaktadır. Toplanan veriler SPSS paket programına ile değerlendirilmiştir.

Bu bulgulara göre; karar alma ile modern muhasebe yönetimin etkileşimini açıklamaktır.

Buna göre;

*Modern muhasebe yönetimi ile karar alma ilişkisi yüksektir. Bu iki değişken arasındaki korelasyon, pozitif güçlü bir ilişki olduğu belirlenmiştir.

*Karar verme ile modern yönetim muhasebesinin etkileşim düzeyi yüksektir. Modern yönetim muhasebesi ve karar verme ile iyi bir ilgileşim vardır.

*Modern yönetim muhasebesinin karar vermede güçlü bir etkisi yoktur.

Şeklinde elde edilmiştir.

Sayfa Sayısı: Modern yönetim, Muhasebe sistemi, karar verme

ABSTRACT

Bingol University Social Sciences Institute Master's Thesis

Title of the Thesis: The Impact of the Use of Modern Management Accounting in Decision-Making for Industrial Companies in The Iraqi-Kurdistan Region/Erbil)	
Author: Jawhar Ahmed Saeed	
Supervisor: Prof.Dr.Sait Patir	
Department : Business Administration	
Sub _ field :	
Date :	

The objective of this research is to identify the (Impact of the use of modern management accounting in decision-making in the Iraqi Kurdistan's industrial companies. The data collected by Email in study population. that is study population include of many sector like (university, bank, intuition technical, business company, Service Company, Government institutions, and industrial company,) the sample of 106 respondents from internal auditors and financial managers and accountant and manager in Iraqi Kurdistan/ Erbil . The research found the presence of the impact of the use of management accounting technique (budget, activity based costing, target costing, just in time, customer profitability, Balanced Scorecard, total quality management, financial statement) to decision making in the Iraqi Kurdistan's industrial companies.

The most important objectives of this dissertation are given explanation of the variables of the study, modern management accounting and decision making. To build a theoretical framework to the research variables.

To determine the correlation as well as the impact of modern management accounting in decision making.

The result of this dissertation was the following:

- The levels of modern management accounting with decision making are high.
- There is a high positive correlation between modern management accounting and decision making.
- There is not strong impact of modern management accounting in decision making,

Based on the results of this dissertation, a set of recommendation presented in order to enhance the role modern management accounting and decision making.

Keywords: Modern Management Accounting , Decision Making

LIST OF ABBREVIATIONS

CVP: Cost-volume-profit

ABC: Activity Based on Costing

SPSS: Statistical Package for Social Sciences

GPFR: General Purpose Financial Reports

IMA: The Institute of Management Accountants

CIMA: Chartered Institute of Management Accounting

IFAC: International Federation of Accountants

GPFR: General Purpose Financial Reports

CPA: Concept of the Customer Profitability Analysis

TC: Target Costing

JIT: Just-in-Time Concept

TQM: Total Quality Management

ISO: International Standard Organization

BSC: Balanced Scorecards

FSA: Financial Statement Analysis

GPFR: General-Purpose Financial Report

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INTRODUCTION

At the end of 19th century and during the 20th century through the increase in the size of projects and the spread of the phenomenon of company mergers with the great development in technological means and the proliferation of new inventions and with increasing competition between different projects to provide goods or services to satisfy the wishes of the Infinite and maintain the capital and evolution, The continued search for new markets and the growing need for external investors to make accounting data in order to channel their funds into profitable investments, This resulted in the emergence of different branches of accounting through the expansion of the management with the complete analytical data needed to serve the management and measure the adequacy of others.

Management accounting that helps management in decision-making, whether financial or quantitative decisions and decisions on increased production or new product. Create a new branch or production line or investment expansions. Will never accomplish its objectives without practicing managerial activities such as planning, controlling, and decision-making. Accounting was initially retained with external reporting. Even with the growth of cost accounting, which is mostly seen as a forerunner to the emergence of modern management accounting (Shah Kamal, 2015, 14).

Therefore, companies are seeking to bring about a change in policy to achieve the transition from the current situation to the situation that seeks to be in the future, this transition often requires them to take certain administrative procedures, has traditionally been to take these actions are then measure and evaluate the stage, this is the ability to measure and evaluate one thing the ability to manage indicators. As development in the areas of business led to a diversity of activities carried out by a single company, and also led to a multiplicity of products offered, and this trend has led to the complexity of the management processes of planning, organizing, directing and controlling, as well as decision-making. Therefore, increased the importance of using modern technique enable companies to verify the efficient use of available resources to achieve the desired goals, and the way to it is the methods of information that will help in the search for the best of those uses and the lowest cost of production, because the sound information leading to sound decisions. As companies become more

focused than ever on the quality of its products, and the rating of its operations to multiple activities for more accurate cost products information, and as a result of the various changes in the information and consumer tastes Technology has changed the role of the management accountant from the traditional role of providing information to more role effectiveness, placing within the integrated management team, which seeks to plan and take appropriate decisions to achieve better profits for the company (Al-Sayyed.Saleh, 2015, 260).

The integration between management accounting systems and management functions in any company is one of many factors that could guarantee the improvement of performance. In the Kurdistan companies and working in Erbil; this study dealt with eight management accounting methods (Budgeting, ABC, TC, JIT, CPA, TQM, BSC, and FSA) used in decision-making, based on the perspective and the level of knowledge in managerial accounting among financial managers, director manger accountants and internal auditors in these companies.

CHAPTER ONE
MODERN MANAGEMENT ACCOUNTING

1.1. THE CONCEPT OF MANAGEMENT ACCOUNTING

In spite of the multiple definitions of management accounting, there has been no general definition agreed upon management accounting (Scapens et al, 1991, 9). The evolution of the concept of management accounting can be explored by following up the change in the definition of management accounting formulated by some accounting bodies as follows:

1.1.1. The Institute of Management Accountants (IMA)

Which focuses on explanation of management accounting informational on the side, which provided management accounting. Management accounting was identified in 1981teas: **“**Management accounting is the process of identification, measurement accumulation analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control an organization and to assure appropriate use of and accountability for its resources. Management accounting also comprises the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies, and tax1authorities**”** (IMA, 2008, 48).

Though definition for Institute of management accounting in today was changed “a profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization’s strategy”. (IMA, 2008, 48). The change in definition highlights the development of the information role of the managerial accountant through convert it from a mere information collector into a decision maker by making him a member of the company's strategic team (Belverd E. et al, 2013, 710).

1.1.2. Chartered Institute of Management Accounting (CIMA)

Defined management accounting as the achievement of information necessary by management for such purposes as: the formulation of policies; planning and controlling activities of the enterprise; decision taking on alternative courses of action; disclosure to those external to the entity (shareholders and others); disclosure to employees and safeguarding assets (www.accountingnotes.net).

Management accounting is the implementation of the essentials of financial and accounting management to protect, create, preserve and growth value for the stakeholders of for profit and not for profit project in the public and private sectors. (CIMA,2005,18).Which highlights the evolution of management accounting to become the closest to senior management concerns with emphasis on efficiency, strategic planning and value creation

1.1.3. International Federation of Accountants (IFAC)

IFAC in defined management accounting as “the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information (both financial and operating) used by management to plan, evaluate, and control within an organization and to assure use of and accountability for its resources”.

While in 1998 it was defined as: management accounting as an activity that is interwoven in the management processes of all organizations. Management accounting refers to that part of the management process which is focused on adding value to organizations by attaining the effective use of resources by people, in dynamic and competitive contexts (IFAC, 1998, 86).

1.2. CHARACTERISTICS OF MANAGEMENT ACCOUNTING

Management accounting is basically concerned with generating useful information after proper analysis and interpretation of cost and financial data and rendering professional advice to management for effective planning, decision-making and control. The main characteristics of management accounting are discussed as under (Surender Singh, 2016, 7).

1. It's related with interpretation and analysis of data: One of the important functions of the management accounting is the continuous analysis and interpretation of cost, financial, socio-economic and other data to generate and present useful information to management. This information helps the management in performance on its important functions of planning, coordination, communication, decision-making, control, etc.

2. A technique of planning and control: Planning and control are the important areas where a management accountant focuses its maximum efforts. Plans in form of standards, norms, targets or budgets are formulated in terms of costs, revenues, profits for all operational activities of the concern. Control process is set into motion so that these plans can be adhered to and achieved.
3. A beneficial tool for decision-making: The system of management accounting provides relevant information, tentative plans, professional advice, recommendation, etc. on all useful policy matters to management for its consideration. Based on this information, management can arrive at quality decisions.
4. Future oriented: Past cost and financial data are analyzed and interpreted just to set better plans. Take better decisions and exercise better control. Hence, all efforts of management Accounting are directed to help the organization to perform better in the future.
5. Primarily purposed for internal use: Management accounting information, plans, advice, reports, etc. submitted to management are primarily intended for internal use by management for effective planning, decision-making and control. Sometimes it contains crucial and confidential information about the operational performance of the company and hence, should not be leaked to external users. Financial accounting is trusted with the responsibility of reporting to external users.
6. It is not mandatory: The use of management accounting principles and techniques is purely optional and there is no statutory requirement as such to maintain management accounting system. The use depends upon its ability to improve structural performance.
7. It includes accounting methods, systems and techniques which joined with special knowledge and ability, support management in its duty of maximizing profits or minimizing losses.

1.3. OBJECTIVES OF MANAGEMENT ACCOUNTING

Accounting for Management increases value to a companies or organization, taking into account the following three main objectives: **(**Ahmeti, Skender, 2008, 23-25)

1. By given that information for decision-making and vigorous participation of planning through the management team.
2. Assist managers in managing operational control activities. So, the management team should always have information on operational needs customers, managers and team management and control flows should compare the actual cost of their effect on the Budget of the company.
3. Enthusiasm of directors and other employees to meet company goals. Although often happens that personal goals are at difference with those of the business, but one of the objectives of management accounting is to motivate managers and employees in achieving the goal more efficient organization.
4. The maturity and performance of activities, units, and workers in the organization, in order to achieve profit maximization. Many of the organizations recognized the increased activity compensate employees based on the profit achieved unit. In some other enterprise that is measured by the quality, sale or delivery time.
5. Importance the competitive position of the organization and working with organization managers to certify competition in the market longer term. Crucial role of management accounting is to determine how the organization will oppose competition, always trying to move forward in its economic development.

1.4. MODERN MANAGEMENT ACCOUNTING TECHNIQUES

1.4.1. Budgeting

After the study many terms appeared on the budget, each one of them focuses on a specific function of the budget, for example, who sees it is related to future forecasting and described as a planning budget, and who considers it an effective tool to controlling the performance of the management described by the audit budget and those who thought it related to numbers called the budget estimate.

At each stage the concept and meaning is different. Some of the parties have defined a specific provision for the budget:

- A budget is a full plan for the future that is usually expressed in formal quantitative terms. Once the budget is established, actual spending is compared to the budget to make sure the plan is being followed.(Ray Garrison, Eric Noreen, Peter Brewer, 2012, 336).

- A budget is the financial blueprint or action plan for a department or organization. It translates strategic plans into measurable expenditures and anticipated returns over a certain period of time (Harvard Business School Press, 2009, p.4)
- A budget is a business plan for the short term – typically one year, it is likely to be expressed mainly in financial terms, and it is role is to convert the strategic plans into actionable blueprints for the immediate future (Atrill & Mclaney, 2005, p. 143).
- A budget is a quantitative expression of a proposed plan of action by management for a future time period and is an aid to the coordination and implementation of the plan. It can cover both financial and non-financial aspects of these plans and acts as a blueprint for the company to follow in the forthcoming period (Horngren et al., 2002, p. 469).

1.4.1.1. The function of Budgeting

The Management Accountant often indicated to as controller, is the director of accounting used in planning, control and decision-making areas. He is responsible for collecting, processing and reporting information that will help manager's decision makers in their planning, controlling and decision-making activities. He contributes in all accounting activities within the enterprise. He performs many vital responsibilities and functions within organization such as:

First: Planning

In the planning process the management accountant helps to formulate future plans by providing information to assist in deciding what products to sell, in what markets and at what prices, and evaluating proposals for capital expenditure. In the budgeting procedure the management accountant plays a main role in the short-term planning process. He is responsible for given data on past performance that may be especially useful as directing for future performance. In addition, the management accountant establishes budget procedures, and timetables and coordinates the short term plans from all sectors of the industry and ensures that these plans are in agreement with each other. He or she then assembles the various plans into one overall plan (that is, the master budget) for the business as a whole and presents this plan for top management approval.

Second: Control

Management accounting helps the control process by making performance reports that compare the actual product with the planned outcomes for each responsibility center.

A responsibility center may be defined as a part (such as a department) of an organization where an individual manager holds delegated authority and is responsible for the segment's performance.

The management accountant provides an important contribution to the control process by drawing a manager's attention to those specific activities that do not conform to plan. In other words, the management accountant assists the control function by providing immediate measure of activities and identifying trouble spots. This management- by- exception approach frees managers from a needless attention with those processes that are adhering to the plans. In addition, top management is made aware of those specific locations where the plans are not being achieved. (Farnham, D., 2015, 149).

Third: **Coordination**.

Given the overall planning nature of the budget preparation, it facilitates management to overcome the difficulties of recourse, profit. And mutual risks interdependencies. Using vertical and horizontal settlement allows you to disclose possible problems as well as counteract mistaken tendencies.

Fourth: Communication

For the purpose of effective management subordinates should have sufficient information about organizational aims in demand to adjust their actions appropriately. Furthermore, managers need to be modern about strategy development. Budgeting, in order to planning processes suffices this function at least formal.

Fifth: Motivation

By means of performance measurement, assessment, and remuneration budgeting should direct managers to company's goals. This function aims to resolve or at least to mitigate the problem of information asymmetry. Personal benefits conditioned to objectives, often expressed in financial form. And participation of subordinates in planning process supplies Necessary incentives for a man on site not to avoid hut to acting on behalf of the firm. : (Drury,J.C. 1992, 5 & Hinka. Roman, 2007).

1.4.1.2. Benefits of Budgets

The primary benefits of budgeting are :(Weygandt. Jerry J, et. al, 2011, 384)

1. It needs all stages of management to plan ahead and to constitute objectives on a repeated basis.
2. It offers definite purposes for assessing performance at each level of responsibility.
3. It makes an early warning system for possible problems so that management can make changes before things get out of hand.
4. It facilitates the coordinate of actions inside the business. It does this by related the goals of each section with overall company objectives. So, the company can integrate manufacture and sales promotion with expected sales.
5. This leads to increased management awareness of the overall operations of the entity and its impact on external factors, such as economic trends.
6. It stimulates personnel anywhere the organization to achieve planned objectives.

A budget is an involvement to management; it is not a substitute for management. A budget cannot operate or apply itself. Organization can understand the benefits of budgeting only when administrators carefully manage budgets.

1.4.1.3. The Budget Period

The budget period normally employed by organizations is one year, which coincides with the periodic reporting requirements for general-purpose financial reports (GPFR) required by the Corporations -Act Most public companies, for example, are required to annually publish GPFR in conformity with approved accounting standards. There is usually a link between the information in the budgets and GPER: an organization's budget normally offers an ex ante (or forecast) estimate of the planned total sales for the period while the GPFR show the ex post (or actual) sales achieved for that budget period. Generally, and depending on the needs of the particular organization and the state of the economy, the budget for the year is broken down into quarterly, month four-weekly and weekly periods for control purposes. An organization that operates in a very competitive market will want to monitor performance on a frequent basis to ensure it is maintaining its competitive position, as reflected in actual income, costs and outputs (Mike Bazley, 2014. 505).

1.4.1.4. Types of Budget

Budget can be categorized into three categories from different points of view. They are: According to Function, According to Flexibility, According to Time.

First: According to Function (Jain .I.C., 2014, 20).

1. Sales Budget the budget which estimates total sales in relations of element, quantity, value, periods, areas, etc. is called Sales Budget.
2. Production Budget it estimates quantity of production in terms of element, periods, areas, etc. It is arranged on the basis of sales budget.
3. Cost of Production Budget This budget expectation the cost of production. Separate budgets may also be ready for each element of costs such as direct materials budgets, direct labor budget, factory materials budgets, office overheads budget, selling and divide overheads budget, etc.
4. Purchase Budget this budget predictions the quantity and value of purchase required for production. It gives quantity wise, money wise and period wise particulars about the materials to be purchased.
5. Personnel Budget The budget that expects the quantity of personnel necessary during a period for production action is known as Personnel Budget.
6. Research Budget This budget relates to the research work to be done for improvement in quality of the products or research for new products.
7. Capital Expenditure Budget This budget provides a guidance regarding the quantity of capital that perhaps required for obtaining of capital assets through the budget period.

8. Cash Budget This budget is an estimate of the cash position by time period for a specific duration of time. It states the expected amount of cash revenues and estimation of cash payments and the likely balance of cash in hand at the end of different periods.
9. Master Budget It is a summary budget including all practical budgets in a capsule form. It explain different practical budgets and covers within its range the planning of projected income statement and projected balance sheet.

Second: According to Flexibility on the foundation of flexibility

Budgets can be classification into two categories. They are: (Mike Bazley, 2014. 505).

1. Fixed Budget Fixed Budget is one which is prepared on the foundation of a standard or a fixed level of action. It does not alteration with the change in the level of activity.
2. Flexible Budget a budget prepared to offer the budgeted cost of any level of action is termed as a flexible budget. According to CIMA, London, a Flexible Budget is, a budget designed to alteration in accordance with level of activity attained'. It is prepared by taking into account the fixed and variable elements of cost.

Third: According to Time On the basis of time

The budget can be classified as follows: (Surender Singh, 2016, 11).

1. Long-Term Budget

A budget prepared for considerably long time, viz., 5 to 10 years is called Long-term Budget. It is involved with the planning of operations of the firm. It is usually prepared in terms of physical quantities.

2. Short-Term Budget

A budget prepared generally for a period not beyond 5 years is called Short-term Budget. It is usually ready in terms of physical quantities and in monetary units.

3. Current Budget

It is a budget for a very short period, say a month or a quarter. It is adjusted to current conditions. Therefore, it is called current budget.

4. Rolling Budget

It is also known as progressive Budget. In this method, a budget for a year in development is prepared. A new budget is arranged after the end of each month/quarter for a full year ahead. The figures for the month/quarter which has rolled down are dropped and the figures for the next month/quarter are added. This practice continues whenever a month/quarter ends and a new month/quarter begins.

1.4.2. Activity-Based-Costing (ABC)

1.4.2.1. The Concept of Activity-Based-Costing

Activity-based costing involves two major elements-cost measures and performance measures. Activity-based costing is a practice that assessment the cost and implementation of activities, resources and cost things. Resources are allocated to action, then activities are allocated to cost things based on their use. Activity-based costing identifies the causal relations of cost payer to events. The basic concept of ABC is that activities enforce resources to produce an output. See (Figure l.1) Expenses should be separated and matched to the level of activity that consumes the resources. Specifically, the expenses that are needed to produce individual units of a particular service or product should be separated from the expenses that are incurred to produce differ end products or services or to serve different payers. This separation should be independent of how many units are produced or sold.

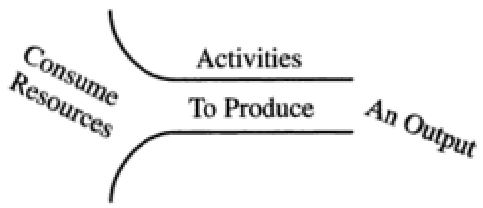

Figure l.1 Theory of resource consumption

(Judith J. Baker - Medical, 1998,"Activity-Based Costing And Activity-Based Management For Health Care", Aspen Publishers, Inc. Gaithersburg, Maryland, P.2)

The ABC approach varies from the classic approach because of its fundamental concentration on activities. An ABC method usages both financial and nonfinancial variables as bases for cost allocation. A typical ABC approach uses more indirect cost pools than does the classical approach and usages a larger number of cost drivers as cost allocation bases. (Judith J. Baker, 1998, 2).

1.4.2.2. Definition of Activity-based costing

There are many definitions of the ABC system that some have known (Ronald J. Lewis, 1995, 114) "Assigns cost activities based on their use of resources، and allocates Costs to cost objects، such as products or customers، based on their use of activities".

(CIMA, 2008) "An approach to the costing and monitoring of activities which involves tracing resource consumption and costing final outputs. Resources are assigned to activities, and activities to cost objects based on consumption estimates. The latter utilize cost drivers to attach activity costs to outputs" (Stephanie Edwards, 2008, 3).

There is that definition by (Abdullatif, 2004, 218), "A system that first allocates resources to the activities that have benefited from them. And then allocate the costs of these activities according to the rate of benefit of these activities".

1.4.2.3. System Application Components ABC

The most important elements of the cost accounting system based on activities are as follows:

1. Resources: The economic elements that are distributed to perform the activity. (e.g., labor, equipment, materials, and floor space). (ROBERT G. FICHMAN, 2002, 142).
2. Activities: They are the focus of the activities cost system. In general, activities that can produce a particular product or service become to four groups and the following: (Cooper & Kaplan, 1992, 13).
   A) Unit-level activities: These activities are executed when all unit of production.
   B) Batch-level activities: Activities that are executed for each production batch rather of the numeral of units produced for each batch.
   C) Product-level activities: Activities executed to provision of a whole product line, but not continuously performed every time a new unit or batch of is produced.

D) Facility-level activities: Activities necessary to provision or maintain a full production process.

1.4.2.4. Implementing Activity-Based Costing

There are many stages to be followed when applying the system (ABC) and that is showed in (figure 1.2) can be followed :(Hornegren.et, 2014, 162).

Step 1: Identify the Products That Are the Chosen Cost Objects

Step 2: I Determine the Direct Costs of the Products. Material costs, direct manufacturing labour costs, and model cleaning and maintenance costs.

Step 3: Choice the Activities and Cost Distribution Bases to Usage for Assigning Indirect Costs to the Products.

Step 4: Determine the indirect costs related per each cost - distribution base.

Step 5: Count the rate per unit of every cost allocation base.

Step 6: Count the indirect costs allocated to the products.

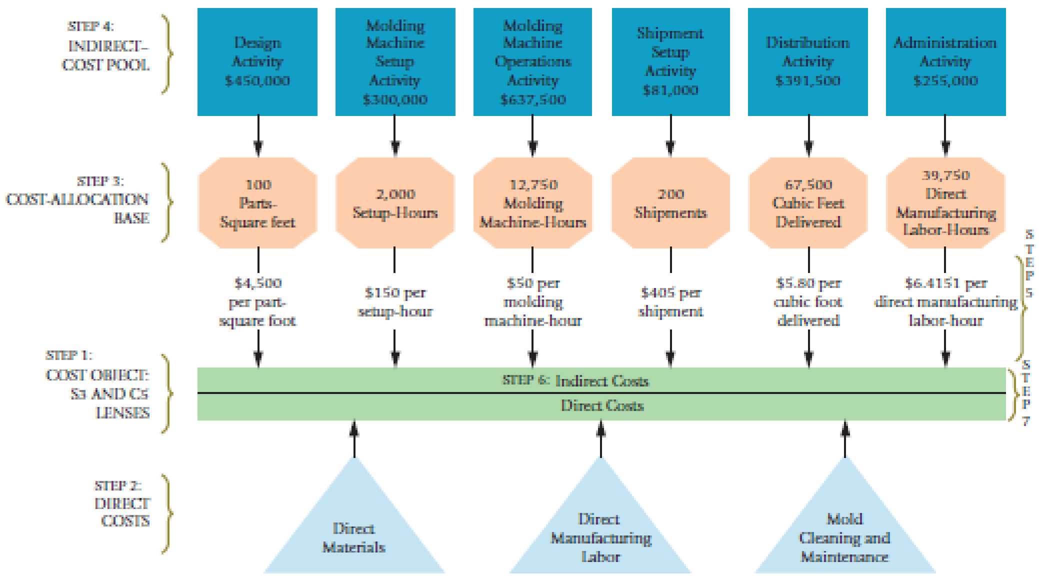

Figure 1.2 Overview Activity-Based Costing System

Charles T. Horngren, et. al, 2014, Cost Accounting A Managerial Emphasis Fifteenth Edition, Pearson,USA, p. 162).

1.4.2.5. Criticism of the ABC system

It directs the cost accounting system based on the activities of a group of criticism: (Sabah, Nariman Ibrahim, 2008, 50)

1. Difficulty applying and choosing cost drivers, which requires the use of specialized external expertise.
2. High costs related to data acquisition from the costs of different activities.
3. The difficulty of obtaining the necessary detailed data on resources and activities consumed, and identify each of the causative factors.
4. There is a difficulty in accurately allocating indirect costs to activities for the difficulty of determining the cost driver for certain activities.

1.4.2.6. Advantages of Activity-Based Costing (ABC)

Advantage ABC is explained in site (accountlearning.blogspot.com)

1. Product cost purpose in activity-based costing is more accurate and reliable in order to it focuses on the cause and effect connection of costs and activities in the context of producing goods.
2. The determined of selling price for multi-products in activity-based costing is reasonable and correct in order to overheads are allocated on the basis of relevant cost factors.
3. Control of overheads considered as of fixed and variable becomes possible by controlling and monitoring activities. Connection between cost and activities are clearly recognized in activity-based costing and thus supply opportunities to control overhead costs.
4. Sufficient information can be obtained to make decisions about the profitability of different product lines.
5. Fair distribution of overheads obtained a great portion in the total cost components.

1.4.2.7. The role of ABC in rationalizing decision making

The ABC system allocates resources to activities Through the main fields of activity, which requires the division of the enterprise into a range of main activities, So that each activity describes a part of the enterprise's operations, then the costs allocation of activities on outputs of the activity units whether goods or services using cost drives, Cost drives must be defined in order to control and control costs, as it helps to properly cost allocation (Al-Bastaki and Ramadan, 1998, 20).

This system will divide the activities in detail into many parts and each part will have its own costs This leads to the determination of the responsibility of each part of the activity for the costs incurred and the revenues achieved, therefore this will help in the decision-making process because the decision-making process needs primarily to know the amount of cost drivers and the revenue for each activity. The administrative decision-making process related to the enterprise's activity is linked to the cost reports, The cost reports include a study of the actual results and their comparison with the standard, so also presentation of the expected results if alternative decisions are taken, This is achieved by providing the required data for each level of management in a comprehensive and at the proper time (Juma et al., 1999, 365).

1.4.3. Target Costing

1.4.3.1. Concept of Cost Target

Most definitions of target cost are classified in competitive environment markets, where cost reduction is a prerequisite and elements necessary to achieve profitability, Cost reduction and management are necessary at all stages of design and product development, which is reflected in the reduction of the cost for the entire product life cycle.

(Kaplan Robert S. & Atkinson A.A, 1998, 239) defined target costing as "target costing is a cost management tool that planners use during product and process design to drive improvement efforts aimed at reducing the product's future manufacturing costs".

(Yoshikawa et al. 1993, 35) define "target costing as the process established to set and support the attainment of cost levels expressed as product costs, which will contribute effectively to the achievement of an organization's planned financial performance".

(Kato, 1993, 36) defines "target costing as part of a comprehensive strategic profit management system that focuses on reducing the life-cycle costs of new products while also improving their quality and reliability".

"Target costing is a system of profit planning and cost management that is price driven, customer focused, design centered and cross functional. Target costing initiates cost management at the earliest stages of product development and applies it throughout the product life cycle by actively involving the entire value chain." (Cypher, et. al,, 1997, p.11).

(Dekker, Henri. Et.al, 2003, 295) Target costing is defined as a costing technique that uses the following formula to calculate an allowable cost price to be achieved during the product development process:

Maximum allowable cost price = attainable selling price - required profit margin.

1.4.3.2. Target costing characteristics

There are several characteristics in this system, the most important (Clifton, 2003, 112).

1. Target cost uses market survey to estimate what customers can pay for a particular product and to know competitors' prices.
2. The target cost system is to divide the cost of the product into several components according to product task، which may result in the deletion of some duty that the customer does not want.
3. Describe the development plan by taking into consideration the dynamics of pricing, complexity of product components and relationship with suppliers.
4. The interaction between the project and the external environment is concerned, by knowing the wishes of the customers and working towards achieving them.
5. It is used as a controlled tool, as it prevent cost increases since the design phase and before production begins.

1.4.3.3. Target-Costing Principles

Target costing can best be described as a systematic process of cost management and profit planning. The six important principles of target costing are :(Swenson, Dan, et al, 2003, 12).

1. Price-led costing. Market prices are used to determine allowable or target costs. Target costs are calculated using a formulation related to the following: market price required profit margin = target cost.

2. Focus on customers. Customer requirements for the cost of quality and time synchronized are included in the product, process decisions and manual cost analysis. The value (to the customer) of any features and functionality built into the product must be greater than the cost of providing those features and functionality.

3. Focus on design. Cost control is highlighted at the product and process design stage. So, engineering changes must happen before manufacture begins, subsequent in lower costs and reduced “time-to-market” for new products.
4. Cross-functional involvement. Cross-functional product and process teams are accountable for the whole product from first idea through final production.
5. Value-chain participation. All memberships of the value chain e.g., suppliers, distributors, service suppliers, and customers are included in the target costing process.
6. A life-cycle orientation. Entire life-cycle costs are minimized for the manufacturer and the customer. Life-cycle costs include purchase price, operating costs, maintenance, and distribution costs.

1.4.3.4. Target Costing Process

Target costing is determined of the following three processes simultaneously or sequentially with each other. (Pazarceviren, Selim Yuksel, et al. 2015, 127).

1. Market level costing: First point of target costing is the costing at marketplace level. Due to the market level costing the information is collected about customer needs and prices they are willing to pay for their needs. By conducting the market analysis in this stage new products' position in the market could be detected and also products' costs at an acceptable level could be detected. The information taken from there will be transferred to the product level.
2. Product-level costing: Suitable costs discovered in the step of costing at market level acceptable costs of target costing are transferred to the product level. At this step working on product design and manufacture process starts. Designers work with the cost pressure. The purpose of the costing at the purpose of costing at the product level is to provide designers with a focus on product cost and cost discipline.
3. Unit- level costing: After the target cost at product level is determined target costs received from product level are transferred to the components of product. Thus for the unit that will be purchased to the suppliers target cost is indicated. Suppliers are obliged to produce the units allocated to them in the framework

of target costs. By this way according to the target cost obtained at market level suppliers must discipline their costs.

1.4.4. Customer Profitability Analysis (CPA)

1.4.4.1. Concept of the Customer Profitability Analysis (CPA)

Customer profitability is usually defined as the determaind or allocation of the company's revenues and costs According to customers because comprehend the profitability of all customer of the company. It is an accounting measure of what companies get from their relation with their customers. Customer profitability represents the difference between the earned revenue and the costs related with the customer relationship over a definite period. Customer profitability analysis is the process of assigning revenues and costs to customer sections or individual customer accounts so that profitability for those segments or accounts can be easily calculated (Erik, 2005, 372).

Profitability analysis is a tool which allows the users to evaluate company's performance .It is used to evaluation both the return and risk characteristic of acompany .It also permits us to distinguish between performance primarily attributed to operating decisions and those that are tied to financing and investing decisions

Customer profitability analysis is a management instrument which is used to analyses revenue streams. Definite customers or groups of customers are studied in terms of the revenue derived from them and any assodated service costs. in this way the business is able to identfiy and locus upon the most profitable customers or customer groups and put processes into action which seek to reduce the service costs for other possibly high-profit customer groups (Sutherland, J. and Canwell, D, 2004, 73).

In some cases, It may be thought that a group of customers the group profitable more than others for the company, But it turns out that after period it is not profitable at all (Winer , 2001, 9).

Customer profitability (CP) is the profit the company makes from serving a customer or customer group over a definite period of time, specifically the difference between the revenues earned from and the costs associated with the customer relationship in a specified period.

According to (Philip Kotler), "a profitable customer is a person, household or a company that overtime, yields a revenue stream that exceeds by an acceptable amount the company's cost stream of attracting, selling and servicing thecustomer" (https://www.lundalogik.com) .

(Horngren et al. 2005, 501). “Customer profitabilit analysis is the reporting and analysis of revenues earned from customers and the costs incurred to earn those revenues”

1.4.4.2. Important Customer Profitably

Customers receive a lot of attention these days at the same time, as a result many modern management technique have emerged that focus on the customer, Such as customer relationship management systems that focus on collecting, maintaining, and benefiting customer information in the study of customer patterns the company deals with them, There is also a quality function or quality spread that focuses on converting customers' needs into actual products and services. actually , there is a key part missing from these management systems is the profitability of companies in fact , do not know who the customers profitable are for her the customers are non-profit, The company define who is the most customer profitable or biggest customer but does not know the profitability of all customers (Khalil. Maher Abdullah, 2012. 24).

During the past years, companies have increased their focus on serving their customers, increase desiring to customer satisfaction، as a result, these companies spent huge money to satisfy those customers, but the problem confront these companies is the difficulty of measuring the profitability of customers، so that it can focus more on customers who achieve the highest profits.

From another direction related to customers who neglected for a long time is to understand the cost of the customer and the profitability of the customer and spending high investments on the satisfaction of customers, comes as important as the calculation of the cost of customer service and knowledge of their customers, who contribute more in achieving profits.

Including customers who do not achieve the same profitability، studies show that through the use of customer profitability analysis, companies can determine the profitability of customers as a total or as individuals (Khalil. Maher Abdullah, 2012. 25).

1.4.4.3. Advantages of CPA

As Harvey determines the disadvantage are **(**Harvey. Jasmin, et al, 2009, 6)

1. Improve profitability by removing non-profitable customers and maximising sales or services to profitable customers.
2. An understanding of the real costs of every customer sector, counting taking into account non-production costs when defining profitability. Non-production costs can sometimes be more important than production costs.
3. It supplies a method of classifying customer groups who are of lifetime value to the establishment, and who are worth retaining or protecting.
4. Developed strategic decision making by providing beneficial information for customer associated decisions, with pricing, discounting and marketing decisions.

1.4.4.4. Implementation of Customer Profitability Analysis

CPA demand that revenues and costs be attributed to customer groups or to their respective individual customers, such that the profitability of those groups and/or customers can be selected. There are six steps. (Cheong. Fong Chun, Steve,2015,3) & (Ansari, 1986, 44).

1. The first step in the CPA application process is to realize the active customers in the customer database because ensure that costs are assigned to active customers only. Historical analysis of customer profitability should be completed retrospectively, that is, by using historical cost and revenue data for the analysis of previous purchase patterns. Active customers shall therefore be defined as those customers that have placed at least one order throughout a given period of time under consideration.
2. The second step is the design of the customer profitability model. The company’s processes are to be inspected to see what activities are performed, and what drive(s) the costs of these activities. The control of customer profitability quantities relates to activity-based costing (ABC). ABC recognizes the cost pools, such as procurement, manufacturing, and customer services in the firm. Cost drivers are units in which the resource use of the cost pool can be carried, such as units produced, the number of purchase orders, or the number of service calls. Costs are then assigned to cost objects based on the

range to which these objects use cost driver units. Lastly, every costs can be assigned to activities, and for each action, related cost drivers be able to recognize.

3. The third step is to achieve a customer profitability calculation. This calculation is showed by supplying data to the customer profitability model. Discounts, rebates and customer relation costs, such as sales commissions, service costs and supply costs, are deducted from the individual customer's sales revenues. Using sales activities as an example, data must be collected on the costs of entirely sales activities, such as the number of sales visits paid to respective customers.
4. The fourth step is to interpret the results. The profitability data depend on the choices obtainable to customers. The rough account probably produce unexpected profitability figures that may be met with a fair quantity of subjective judgment. The greatest customer probably one of the least profitable. Considerable discounts may be offered to them. These discounts may greatly affect the establishment's profit margin, and important differences may be found across customer kinds. These outcomes may also benefit in the adjustment of the model. The distribution of costs to cost drivers and customers may also be affected by oversimplifications of inaccurate or estimates. The Customer Profitably Analysis working group has to review these discount decisions to arrive a more accurate cost distribution.
5. In the fifth step, the results of the Customer Profitably Analysis are used to progress customer relation management, as well as cost management and pricing programs. concept through fin (Taiichi ohno) developed this idea in the early 1970s and followed it as a method to solve all the problems and productive dilemmas that were facing his company at the time, research and applications continued in this field for about thirty years until the applications of this system became available to many Japanese companies in the middle seventies. Then moved to the American environment in 1980 to be applied by companies engaged in the automobile industry and electronics, especially companies (General motors, Apple, IBM, General electric).

1.4.5. Just-In-Time (JIT)

1.4.5.1. Concept of Just-In-Time (JIT)

Just-In-Time (JIT) Industrial is a viewpoint rather than a technique. By eliminating all waste and looking for continuous rectification, it goals at creating industrial system that is response to the market needs. Just-in-time industrial was a concept presented to the United States by the Ford motor company. It works on a demand-pull basis, contrary to until now used methods, which worked on a production -push basis. To elaborate further, in just-in-time industrial (colloquially referred to as JIT production systems), actual orders dictate what should be manufactured, so that the careful quantity is produced at the exact time that is required. Just in Time (JIT) Production is a manufacturing idea which removes waste related with time, labor, and storage space. Basics of the concept are that the company produces only what is needed, when it is necessary and in the amount that is needed. The company manufacture only what the customer requests, to actual orders, not to forecast. JIT can also be defined as work on the needful units, with the obligatory quality, in the required quantities, at the last safe moment. It means that company can manage with their own resources and assign them very easily. (Shwetanshu Gupta, 2014, 2).

1.4.5.2. Objective of JIT

This system to achieve many Objective، there are key objectives that are eliminated by: (Al-Hussein, 2001, 204) and (Hong, D., Mo, Y, 2002, 2).

1. Eliminate surplus production, production is on demand.
2. Eliminating on the wait time and the reduction of the arrangement time and re-employed.
3. Completely dispose of defective production.
4. Reduce inventory to its minimum (to zero).
5. Focus only on productive processes and reduce unnecessary activity.
6. To be more responsive to demand.
7. Improvement communication among company and suppliers.
8. To be more flexible.
9. To achieve better quality.
10. To reduce product cost.

1.4.5.3. Advantages Just-In-Time Systems

The production system just in time focuses on the control of total industrial costs, and its application leads to reduction of industrial costs significantly(Iyad Salim Zamalt, 2013, 45).

1. Reducing the size of the stock and the amount of funds invested in it and in the buildings needed to put quantities large inventor.
2. Reduction of transport costs and inventory handling.
3. Reduce the cost of preparing machines, which leads to a decrease in the total cost of production.
4. Reduction of the number of losing and damaged units based on the application of total quality management.
5. Increased sales revenue as a result, for fast response to customers.

1.4.5.4. Disadvantages

Following are the disadvantages of Approving Just-In-Time Industrial Systems. (Shwetanshu Gupta, 2014, 7).

1. Just-in-time production agreements zero for mistakes, as it makes reworking very not easy in practice, as stock is protected to a bare minimum.
2. There is a great reliance on providers, whose performance is usually outside the specialization of the manufacturer.
3. Due to there being no buffers for postponements, manufacture downtime and line idling can happen which would bear a detrimental impact on finances and on the balance of the production process.
4. The establishment would don't can meet an unforeseen increase in orders due to the fact there are no surplus finish goods.
5. Transaction costs would be relatively high as frequent transactions would be made.
6. Just-in-time industrial may have sure detrimental effects on the situation due to the frequent transfers that would result in better use of transportation, which in turn would consume more fossil fuels.

1.4.6. Total Quality Management

1.4.6.1. Concept of (TQM)

The concept of quality management is a modern management concept whose philosophy is depends on a set of ideas and essentials that any management can adopt because obtain the greatest possible performance. Given the modernity of this concept, find many definitions because of disagreement on a specific definition, this gives us definitions for a set of them as follows:

Total quality is an approach to doing business that attempts to maximize an organization’s competitiveness through the continual improvement of the quality of its products, services, people, processes, and environments these elements distiguish TQ approach from traditional ways of business (Goetsch, D.L. et al, 2014, 7).

Oakland (2000) views TQM "as an approach to improving the competitiveness and flexibility of an organization, and essentially involving individuals at all levels in planning, organizing, controlling and understanding organizational activities"(Idam. Et Al, 2014, 26).

According to Talha , "TQM refers to a wide set of management and control processes designed to focus the entire organization and all its employees on providing products or services that do the best job possible to satisfying customers (Talha, M., 2004, 15).

(Dale, 2003, p.26) defined TQM “A management approach that ensures mutual co-operation of everyone in an organization and associated business processes to produce products and services that meet and, hopefully, exceed the needs and expectations of customers”

(Khan, 2003, 374) points out that the philosophy of TQM is based on four key factors:

1. Intensify customer focus.
2. Focus on making improvements continuously
3. Staff Strengthening, involvement and ownership.
4. Use systematic approach to management.

1.4.6.2. benefits and disadvantage of TQM

As Haskins. Bill determines benefits and disadvantage are (Haskins. Bill et al, 2007, 5).

1. Benefits of TQM comprise the following:

- The quality of the final product or service has greatly improved.
- Cost savings can be achieved by reducing waste that replaces defective or broken goods or components
- Increase productivity where operate time is used more effectively.
- Increased market share because of better products and services, resulting in a competitive advantage.

2. Reported disadvantage of TQM comprise the following:

- It is a waste of time.
- It's not a magic solution for a failing organization.
- TQM is not a "quick fix" can take years to carry out and will be a continuous process.
- It involves costs, namely capital costs and the costs of re-training staff.
- Requires high-quality change management.

1.4.6.3. Objectives of the application of TQM

As Hoffur determined important objective application of TQM are **(**Hoffur, Samuel K. M, 1999, 7).

1. (Raising the overall performance of organizations،Because functions of TQM avoid negatives completely so that there is no proportion of the possibility of mistake when performing business,the work should be done correctly from the first time.
2. Improving the quality of services provided and goods produced، thereby contributing to the strengthening of the competitive center of TQM-based organizations.
3. TQM contributes to raising the efficiency of the decision-making process, by attention driven to the quality and quantity of information relevant to the making decision, as well as participatory and consultative management in the decision-making process، especially as quality is the everyone's responsibility and starts from the supplier to the consumer.
4. Increase the loyalty and relationship of individuals working in the organization to implement TQM, Increasing the culture of cooperation and teamwork in one team.

5. The implement of TQM in organizations that support increased capacity to respond to and adjust to environmental changes, and increase their ability to invest opportunities and avoid risks, helping them to continue and develop.
6. Reducing the time obligatory to complete the work.
7. Achieve customer requirements and focus on satisfaction.
8. Preparation of staff by system, procedures and directives that include their good work
9. Rationalization of public expenditure in the organization so that the cost component is the focus of all the work of the Organization.

1.4.6.4. International Standard Organization (ISO) system for quality

External quality standards, like the ISO 9000 series, are produced by the recognized standard. The ISO 9000 series is the most famous and used in the world.

The ISO 9000 Series has a set of standards for quality management and excellence assurance it was initially available in 1987 by the Universal organization for Standardization (ISO). It was revised in 2000 to further emphasis on customer1satisfaction and achieve customer requirements. The ISO 9000 are not product standards. They are process based somewhat than on a procedural basis, what organizations must do to manage processes that affect quality (Haskins. Bill et al, 2007, 7).

The ISO 9000 sequence of quality system standards and their related certification have been in place for a significant time. It is worth mentioning that it was developed from the 69 military standards and the British standard (BS 5750). The first global standard, agreed through the Global Organization for Sanitation (SOO), was published in 1987. However, the ISO carries out a regular revision of its standards to continue with modern development and a radical revision of ISO 9000:1994 standard was available in 2000 (Van der Wiele et al., 2005, 101).

Despite the international recognition and approval of the ISO 9000 series standards (Singels et al, 2001, 62) stated that:

"ISO 9000 certification gives no guarantee that the quality or service of an organization is better than the quality of other organizations. Thus, ISO 9000 certified organizations do not automatically have a good product quality”.

(Gotzamani and Tsiotras, 2002, 161) highlighted the importance of ISO 9000 in internal organizational improvement the new ISO 9001 ISO 9001:2000 movement. They state that:

"ISO 9000 standards really set a strong basis for companies' organization sine improvement of internal organization operation is proved to be the first and most important benefit".

So that about ISO 9001 according to (Srdoc, et al. 2005, 278), stated that: The ISO 9001 is a typical for quality assurance in design, expansion, manufacture, and installation and servicing. Different from the old standard (ISO 9001:1994) that was focused on procedures, the new ISO 19001 (ISO 9001:2000) is focused on processes. Its eight key management principles are:

1. Customer based organization.
2. Leadership.
3. Participation of people.
4. Process approach.
5. System approach to management.
6. Continual improvement.
7. Factual method to decision making.
8. Mutually useful supplier relationship.

According to (Magd, 2010, 65) study; table (1-1) shows the comparative investigation between the problems of ISO 90011:2000 in Egypt, Turkey and Sweden as follows:

Table 1-1 : Comparative1analysis between the problems of ISO in three countries

Rank	Egypt (Magd study, 2010)	Turkey (Erel and Ghosh, 1997)	Sweden (Carlsson and Carlsson, 1996)
1	The need to change the regular system to fit ISO	Time and resources Consuming	Lack of understanding of its importance by all departments
2	A resistance to the introduction of ISO	Difficulties in interpreting the standards	Unwillingness to change from the existing system
3	Lack of understanding of the importance of ISO by all departments	Cumbersome and bureaucratic documentation	Difficulty in understanding the ISO requirements
4	ISO implementation is time consuming	Initial difficulties in making the quality system understood	Documentation control
5	ISO implementation involves high costs	Difficulties in choosing the suitable level of documentation	Time and cost

Source: Magd, H., 2010, "Quality Management Standards Implementation in Egypt: ISO 9000 Perspectives", Global Business and Management Research: An International Journal. Vol. 2, No. 1, P. 65.

Benefits Applied in ISO 9000: (Haskins. Bill et al, 2007, 7).

1. Increase customer satisfaction.
2. It can be used as a tool of marketing.
3. Recognized Internationally, very useful in export markets.
4. Can complement the total quality management.
5. Useful to achieve continuous improvement.

1.4.7. Balanced Scorecards (BSC)

The Balanced Scorecard concept has spread throughout the worldwide business and consulting communities at lightening speed, even by today's fist paced standards. Its approach has instant appeal to a Chief Executive Officer (Schneiderman. et. al., 1999).

After publication of the 1992 HBR article by (Robert S. Kaplan and David P. Norton), several companies quickly adopted the Balanced Scorecard giving us deeper and broader insights into its power and potential. During the next 15 years, as it was adopted by thousands of private, public, and nonprofit enterprises around the world, we extended and broadened the concept into a management tool for describing, communicating and implementing strategy. In this paper, I describe the roots and motivation for the original Balanced Scorecard article as well as the subsequent innovations that connected it to a larger management literature. The paper uses the following structure for organizing the origin and subsequent development of the Balanced Scorecard: (Kaplan, Robert S., 2009, 3)

1. Balanced Scorecard for Performance Measurement
2. Strategic Objectives and Strategy Maps
3. The Strategy Management System
4. Future Opportunities

The Balanced Scorecard approach addresses some of the weaknesses and vagueness of previous management approaches. It attempts to provide a clear prescription as to what organizations should measure. It also translates vision and strategy, defines the strategic linkages to integrating performance across an organization, communicates objectives and measures to a business unit, and aligns strategic initiatives. When fully implemented, it aligns everyone within an organization so that all employees understand how and what they can do to support the strategy. It could also use as a basis for compensation and provide management feedback on whether as to whether the plan is working.

The Balanced Scorecard indicates that the organization's performance can be viewed from four main perspectives: (Rompho, Nopadol, 2011, 39)

1. Financial.
2. Customer.
3. Internal business process.
4. Learning and growth.

These four viewpoints are linked to the organization's strategy and make a holistic model of its strategy that allows all employees to know how they can contribute to the success of the organization you can see (Figure 1.3).

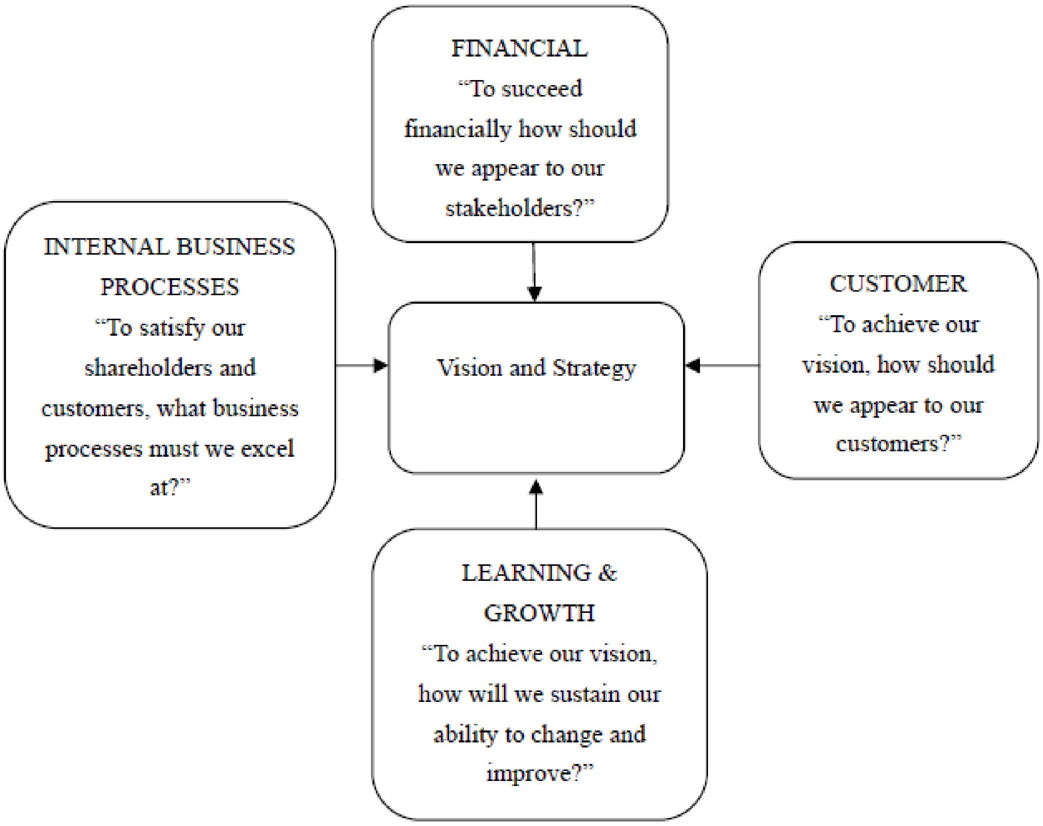

Figure 1.3 Balanced Scorecard framework

Resorce : Rompho, Nopadol, 2011, "Why The Balanced Scorecard Fails In Smes: A Case Study." International Journal of Business and Management 6.11, P. 39.

1.4.7.1. Characteristics of BSC

Nair (2004, p. 13) points out that as the name implies; BSC is a methodology to solve challenges in balancing the theories of a strategy with its execution. It has the following characteristics:

1. Its methodology is suited for managing business strategy.
2. It uses a common language at all levels of the organizations.
3. Is uses a common set of principles to manage day-to-day operations as well as to framework the company's strategy.
4. It is designed to identify and manage business purposes.
5. It provides a balance between certain relatively opposing forces in strategy:
   - Internal and external influences.
   - Leading and lagging pointers and measures.
   - Financial and non-financial aims.

- Organizational stock control on their own aims and an overarching framework of goals.
- Finance priorities and operations.

6. It aligns strategic goals with objectives, targets, and metrics.

1.4.7.2. Objectives of balance scorcard

For implementing the balance scorecard in the field, organization must identify the objective of balance scorecard. The Balanced Scorecard, developed by Kaplan and Norton at Harvard University, provides an excellent framework for defining goals and objectives and translating them into specific measures (Kaplan, 2000). Objectives defined using this framework is “Balanced” in that they are defined from four perspectives: (https://www.academia.edu)

1. The Customer Perspective emphasizes satisfying the needs and wants of customers.
2. The Financial Perspective focuses on the stakeholder concern about how efficient and effective the unit is at using its resources and capitals.
3. The Internal Business Perspective highlights excellence at performing internal processes and in employee competencies and skills.
4. The Innovation & Learning Perspective stresses on dynamic improvement and the creation of value

1.4.7.3. The benefits of BSC

The key benefits of using BSC in relation to Kaplan and Norton (1996) are: **(**www.netmba.com)

1. The BSC supply managers with the arrangement they need to navigate to future competitive success.
2. The BSC interprets an establishment's mission and Strategy to a full set of performance measures that get the framework for a strategic measurement and management system.
3. Clarify and gain consensus about strategy.
4. Link strategic goals to long-term targets and annual budgets.
5. Perform periodic and methodical strategy reviews.

6. The BSC allows companies to pathway financial results though simultaneously monitoring development in construction the abilities and acquiring the intangible assets they must for future development.
7. Communicate strategy throughout the organization.
8. Obtain feedback to learn about and improve strategy.

1.4.7.4. Performance measurement

Performance measurement is a topic which is often discussed but rarely defined Neely et al., Performance measurement systems were developed as a means of monitoring and maintaining organizational control (www.academia.edu). This is the process of ensuring that an organization pursues strategies that lead to the achievement of overall goals and objective. Sink, also suggests that performance measurement is a „mystery‟ complex, frustrating, important, abused and misused function (docplayer.net). The level of performance a business attains is a function of the efficiency and effectiveness of the actions it undertakes, and thus performance measurement can be defined as the process of quantifying the efficiency and effectiveness of an action. Zairi (1994) in his study identified that performance measurement has been the systematic assignment of a number of activities. He further indicated that the function of measurement is to develop a method for generating a class of information that will be useful in a wide variety of problems and situations (www.grin.com).

1.4.8. Financial Statement Analysis

1.4.8.1. Consept of Financial Statement Analysis

Financial statements are in reality reports meant for unknown but specific groups of us. Such reports lose their importance if the managers do not analyses and understand them in their own viewpoints for decision-making. Financial statements current facts, but some realities do not convey the same bearings to all. Requirements and situations of managers vary .Later, the statements describing details need to be analyzed and understood in the light of the needs of the exact users .Any way. Financial statements are two parts of a continuous process. (Sinha, G., 2012, 8).

Past events and performances serve as contextual for creation projections if they are to be realistic. The financial statements arrange for important information concerning past financial dealings and their special effects on the profitability and the financial situation of the business. Numerous employers of financial statements such as owners, investors, creditors, management etc. must make an analysis of financial statements to make true decision. So financial statements are the instrument of transfer to owners, management or to importance outsiders a brief picture of profitability and financial location of the business. Financial statements are the end products of the accounting process which give a brief accounting information of the period later the accounting period is over (accountlearning.blogspot.com).

Financial statements are the summary reports of an establishment's financial transactions. They report the end results of accounting activities during a specified period of time. Financial statements provide the income or loss and financial position of a company. Financial statements are end of the period accounts prepared to show the profit or loss situation for a period of time and to assess the financial location and cash flow situation on a specific date. Financial statements report the result of past activities (http://accountlearning.blogspot.com).

1.4.8.2. Objectives of FSA

The main purposes of financial statement analysis is to supply decision maker's information about a business project for use in decision-making. Users of Financial Statements information are the decision makers related with evaluating the economic situation of the firm and forecasting its future course. The major groups of users are management of evaluating the operational and financial efficiency of the company as an entire or of sub -units (e.g. departments), investors for making investment decision and portfolio decisions, lenders and creditors for defining the credit worthiness and solvency position; employees and labor unions for deciding economic status of the creativity and making, sound decisions in wage and salary negotiations, regulatory authorities for controlling the activities of the firm and making overall corporate policy, economists, researchers and planners for studying firm and specific data behavior (Palande, Pandit, et al, 2015, 55).

Financial Statement analysis can be used by different users and decision makers to achieve the following objectives (accountlearning .blogspot.com 29/6/2017).

1. Assessment of Past Performance

Past performance is a good indicator of future performance. Investors or creditors are concerned in the direction of past sales, cost of goods sold, operating expenditures, net income, cash flows and return on investment. These trends provide a tool for controlling management's past performance and are reasonable indicators of future performance.

2. Assessment of current position

Financial statement analysis appear the current position of the company in relationships of the kinds of assets owned by a commercial company and the different liabilities due against the enterprise.

3. Forecast of profitability and evolution prospects

Financial statement analysis supports in measuring and forecasting the earning prospects and development rates in earning which are used by investors while comparing investment replacements and other employers in judging earning possible of corporate enterprise.

4. Prediction of bankruptcy and failure

Financial statement analysis is a significant instrument in assessing and forecasting bankruptcy and probability of corporate failure.

5. Assessment of the operational efficiency

Financial statement analysis assistances to assess the working efficacy of the management of a company. The real performance of the company which are discover in the financial statements can be compared with some principles set earlier and the deviance of any between standards and actual performance can be used as the indicator of efficiency of the management.

1.4.8.3. Limitations of Financial Statements

The Financial Statements (Profit and Loss Account and Balance Sheet) suffer from assured limits, which are mentioned under: (Palande, Pandit, et al, 2015, 55)

1. The financial statements discover qualitative change which undoubtedly affect importantly the performance of an undertaking. The financial accounts do not explanation for events for example change in management, labour strikes,

changes in government policies affecting projects etc. The financial analyst must try to evaluate the influence of qualitative changes on the profitability of the in relation to enterprise.

2. Financial statements are old in nature. They express nothing about future. Then the financial analyst is interested with analysis and explanation for formulation of future commercial policies, he should rearrange the statements in such a style, that they becomes more understandable and beneficial for projections for future.
3. Normally, the audited Profit and Loss Account and Balance Sheet are reflected dependable statements. If the analyst is obliged to use the unaudited accounting statements, he must first establish their truth. It is not very easy to confirm the accuracy of the Income Statement and Position Statement without the basic information in the form of ledger accounts and other records.
4. The accounting period of concept is not technically correct. The Profit and Loss Account is ready for an accounting year which is normally a period of one year. This gives rise to the problem of cost and income distribution. In fact, actual profit or loss can be calculated only at the end with the units is closed down. The yearly accounts can best be measured as interim reports.
5. The Profit or loss number as shown by a Profit and Loss Account is not necessarily an exact number which is effected by the personal ruling of the management concerning depreciation, inventory estimate and supplies for several reserves and emergencies. The management can use profit/loss figure to serve their interests. The financial analyst ought to understand that the revenue has been rightly calculated by following reliable accounting policies.
6. Balance sheet is a constant documents, which means, a documents viewing the economic situation of an enterprise one given date. The Balance sheet is ready on the last day of a financial year. I.e on 31st December, 31st March or 30th June. Usually, the Balance Sheet is arranged and distributed very late after the close of the accounting year. The Balance sheet loses much of its import and applied utility because of a long time gap between the close of an accounting year and the real publication of the same. A Financial analyst should always bear this limitation in mind.

7. Assets shown in the Balance Sheet might not be shown at their fair or current values. Goodwill is closely related to profits. If a firm suffers loss unceasingly for the last few years, it obviously means that it no more likes the goodwill as shown in the books of the firm. But the firms continue to display goodwill at the normal figure despite go on losses. Also, firms in over-all do not account for the effect of increase on their stable assets and liabilities and expression them at cost values. The financial analyst ought to take precaution and give due recognition to the assets estimate as done by a company.

1.4.8.4. Advantages of FSA

Users of a financial statement must be aware of the benefits and limits of the financial statement analysis (FSA). Benefits are as follows: (Sinha, G., 2012, 8)

1. Through analyzing these statements, and knowledge about the existing economic location of the enterprise can be derived.
2. These statement current facts in numbers. Individuals observing the events right may be conscious of an on the spot state. But they might understand neither the background nor the sequences and implications of the fact. At the time of analyzing as analysts. They have the prospect of investigative sequences of the events. Contemporary economic and other associated facts. The opportunity of the analysts being neutral and far-reaching is very high.
3. It is not easy for individual families to study the financial statements of individual enterprises. Expert analysis give their ideas after seeing various facts and statements. This is why such analysis system assistances numerous parties for their decision-making.
4. The meaning underlying the figures can be derived through analysis by which it can be established that numbers in the statements are not mere figure, they strongly create the picture of exact situations.
5. Analysis is complete with the goal to find the future on the base of the past.
6. Financial statements deal with individual enterprises. But analysis reflect simultaneously the financial statements of an amount of firms over space and time. Ideas of several parties. Socio-economic locations of the manufacturing and the economy, and give their measured judgment about the prospect of an enterprise. Thus, through analysis, the view of a firm can be predicted after

allowing for the positions of numerous firms. Industry over different space and time, and the contemporary socio economic position in which the firm operates.

1.4.8.5. Disadvantages

As Sinha determines the disadvantage are (Sinha, G., 2012, 9).

1. As the analysis is past oriented, it may not help in forecasting the future.
2. Such1analysis is not decision- oriented.
3. Analysis is an instrument, and means should be planned according to goals. But the formwork of designing means, the statements consistent with the requirements does not exist here.
4. Only accounting1ratios and1percentages are used here for exploration. Other means and systems are not generally used here.
5. It is difficult to prove justification of tile system. It is plain from several empirical researches that the significance of accounting-based information is very restricted in decision making process.
6. It is revealed in different studies that market-based information is ignored in such approaches to FSA.

1.4.8.6. Decision Making on The Basis of Financial Information

So as to recover the practice of financial information in the background of the decision making process, we essential to analyze financial statements. In that context, we can define financial statement analysis as the practice where we change data from financial statements into usable information for business quality measurement by different analytical techniques, which is very important in the process of rational management. Therefore, to know the current level of business quality is very significant in the context of future business management, since we try to ensure company's development and existence on the market. Financial statement analysis comes before the management process that is before the process of planning which is the component of the management process. Planning is very important for good management. Good financial plan has to consider all company's strength and weaknesses. The task of financial statement analysis is to recognize good characteristics of the company so that we could use the most of those advantages, but also to recognize company's weaknesses in order to take corrective actions. Because of that, we can say that management of the company is the most significant user of financial statement analysis (www.essay.uk.com).

In the process of financial statements analysis it is possible to use the whole range of different instruments and procedures. First of all, it considers comparative financial statements and the horizontal analysis procedure together with structural financial statements and the vertical analysis procedure. By horizontal analysis which is based on the comparative financial statements we try to examine the tendency and dynamics of changes of particular basic financial statements positions. We estimate business efficiency and security of the company on the basis of observed changes. On the other hand, structural financial statements are the base for vertical analysis which allows in- sight into financial statement structure. Financial statements structure is very significant in the context of business quality. By financial statement analysis we get acquainted with the business quality, but the questions of the analysis are not solved by horizontal and vertical analysis procedures of balance sheet, profit and loss account and cash flow statement. In the context of measuring business quality on the basis of financial statements, the most significant are different financial ratios formed from basic financial statements (Katarina Zager. Et al, 2006, 37).

CHAPTER TWO

ROLE MANAGEMENT ACCOUNTING IN DECISION-MAKING

2.1. CONCEPT OF DECISION MAKING

Decision making is one of the most important management functions. The success of business planning depends largely on the management decision-making ability. Making a decision means selecting the top one among different alternative actions. For any commercial control and planning, the management is take part in search of the most right course of action. Among the several possible alternatives to the management, among the many possible alternatives to management you should choose the best one from a business point of opinion concern. However, choosing the best alternative among the different options requires an assessment of all possible alternatives to which the pertinent quantitative and qualitative information are obtainable mainly for management, Based on this information, the Department is making a decision on the issue concerned deals with the future. This decision should also impact costs and other business factors (Bhattacharyya .D, 2011, 703).

So also (Burstein), described decision-making as a fundamental branch of management and decision-making service requiring that the concept of management accounting and management tasks be described in the background of decision-making. But before discussing what decision-making is, let's describe what the decision is, for decision-making is a process of resolve. It is traditionally declare that the decision is to take the course of action cause an appropriate desired goal. This decision making indicates a non-random activity concluding in creating the choice of one out of numerous alter-native ways of action (Burstein & Holsapple, 2008, 26).

There are many definitions for decision making, such as,

According to (Daly, et al, 2017, 393) that define " Decision making: is the process of making a choice between a numbers of options and committing to a future course of actions".

According to Mary Cushing Nues: Decision-making takes place in adopting the objectives and choosing the means, and again when a change in the situation creates a necessity for adjustment.

According to Trewartha and Newport, "Decision making involves the selection of a course of action from among two or more possible alternatives in order to arrive at a solution for a given problem."(Venkatachalam, T. A., and C. M. Slapping, 2010, 109).

2.2. THE DECISION-MAKING PROCESS

Decision making is every manager's primary responsibility. To make good decisions, managers should invariably follow a sequential set of steps as presented below: (ICAI, at al, 2013, 29)

Decision making is the responsibility of each manager. To make perfect decisions, managers must follow a sequence set of steps as described below:

1. **Identify and diagnose the actual problems**: The first stride in the decision making process is to recognize the problem. After the problem is defined, it is supposed that half solved. Identifying the problem means knowing the gap between what we want to occur and what is probable to happen if no action is taken. As indicated by Newman and Summer, and define the reason of the gap and comprehend the problem to resolve the problem. In spirit, identify and diagnose the actual problem includes the responses to the questions.
   - What is the problem?
   - Which problem to solve?
   - What is the real cause of the problem?

   According to Peter F. Drucker, critical factor analysis's helpful in identifying the causes of the problem properly. A decision maker should collect as much information as possible before attempting to solve it. If possible, in addition to tact's, opinion should also be collected. Which would aid in diagnosing the problem effectively.
2. **Development of alternatives**: after classifying and diagnosing the problem, and the second stage, identifying the alternatives obtainable to solve the problem. In choosing the alternative path of action, the Director must consider only viable and truthful alternatives.Moreover, it should consider time, and cost psychological barriers that limit the number of sensible alternatives. Newport and Trawatha confirm that brain storage and participants in the group can be used fruitfully in the development of

alternatives. It should be remembered that while considering several alternatives, one of the alternatives is not action'. Research and creative mind are wanted to make sure that the greatest alternatives are reflected before a path of action is a selection of for inclusion of it among the alternatives (Hilton, Ronald W., 1991, 94).

3. **Evaluation of alternatives:** Maybe one of the most significant steps in decision making is the assessment of each alternative. Now, the decision-maker attractions balance sheet of every alternative by classifying the benefits as well as disadvantages of these alternatives. All relevant facts about each alternative should be collected, the pros and cons could be considered and the significant ideas could be renowned from the unimportant or peripheral matters. The aim of all this practices is to limit the amount of alternatives to a manageable size and then reflect the alternatives for the selection. Some of the criteria for assessing the alternatives could be (Schermerhorn, John R. et al, 2010,179)
    - Resources available for implementing the alternative
    - Economy of effort
    - Element of risk involved
    - Results expected
    - Time constraint
    - Accomplishment of common goal
    - Implementation problems etc.
4. **Selection alternative:** The next signifcant step in decision making method is choose of best alternative from several obtainnable alternatives, actually, the ability, to select the best way of action from several potential alternatives splits the successful managers from the less successful ones. Drucker references four principles, the risk, economy of potential timing, and limitation of resources, before one alternative is particular among the available ones.
5. **Implementation and follow up of the decision:** The last step in decision making process is the implementation of the selected alternative in the company. The alternative-selected should be properly connected to those memberships of company who are interested with the decision. Acceptance

of the decision by the memberships of the group is categorically needed for the achievement of the implementation Moreover, after the application of the decision it is required to follow up to understand whether the decision is reaching the desired results or not. The manager must at least hesitate to make a decision that does not reach his goal. The Director must understand the need for all company members contribute in the decision making a decision implementation

2.3. LEVELS OF DECISION MAKING

The Strategic/Tactical/Operational background recognizes various types of decision making at different stages in the company. In the Strategic /Tactical /Operational framework, the organization is supposed of as having a pyramid structure (Figure 1.4). At the end of the pyramid is the working layer, while the highest of the pyramid signifies the strategic layer. Among these are the middle management or tactical layers (Bell, Peter, and Gregory Zaric, 2013, 21).

1. Operational decision making Lakes in the lower levels of the company. These decisions are obligatory for the day-to-day management of the company and have basically short-term consequences; they be able to change justly simply, often at low cost. Examples contain: how much of a creation to order when the stock has (or is about to) finish, how much fuel to weight into an airplane, and what way take to deliver our packages. In spite of the fact that working decisions happen at the lowest levels of the stable, they can be of great location. Companies such as Val-Mart have thrived by mastering operational -level decision making.
2. Tactical decision making lakes Place in the middle, managerial levels of the companies. These decisions have longer lasting suggestions than operative decisions, which are costly additional changes. Examples include: deriving the maker’s master production schedule, defining on the company's operative budget. And hiring management stall.
3. Strategic decision making is the job of senior management, often including the Board of Directors. Strategic decisions affect the long-term trend amid vitality of the organization. Usually, strategic decisions, once taken, are very expensive and problematic to change. Examples include: leasing or

purchasing a new building. Launching a main new product, earning another company, and choosing the Chief Administrative Officer for the company.

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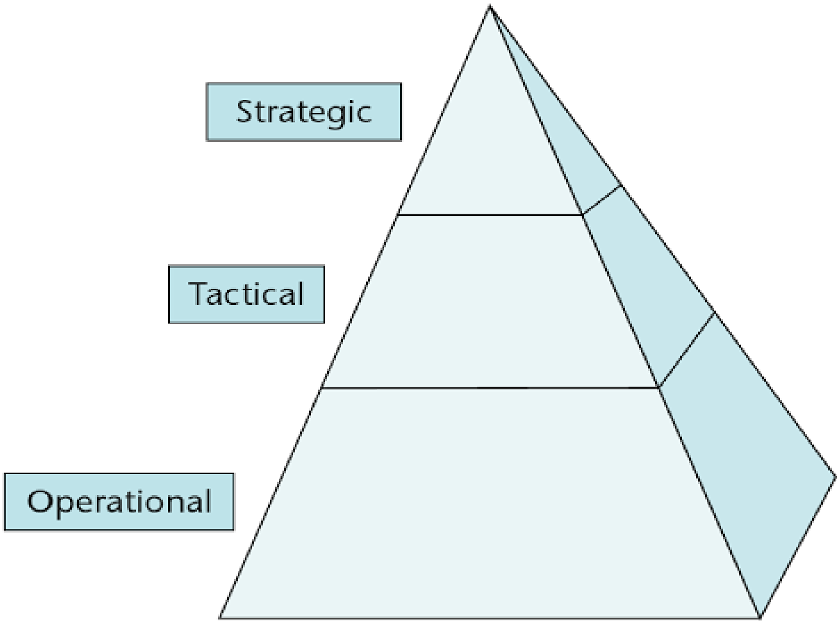

Figure 2.1 Levels of decision making framework

Source: Bell, Peter, and Gregory Zaric, 2012, Analytics for Managers: With Excel. Routledge, P.21.

2.4. TYPE OF DECISION MAKING ENVIRONMENT

The decision is completed based on information that can be obtained about the occurrence of events as well as the status of the decision (or the environment). The types of decision-making environment are (Reddy, P. Narayana, 2009, 118 & Render, 2009, 72):

1. Decision making under certainty

In this sort the decision maker has the entire knowledge (perfect information) of result of every decision select (course of action) with certainty. Hence the decision maker will select an action that yields the major return (pay-off) for the known future (state of nature).

2. Decision making in uncertainty

In this situation, the decision maker can't determine the possibilities in which the different situations of will occur. Therefore, decisions are prepared in uncertainty with less information than the decision under risk.

3. **Decision making in risk**

Decision making in the light risk, there are many potential products for each alternative, and the decision maker identifies the probability of appearance of each outcome. A few managers will be enough to have full information and understanding of the nature of the situation under consideration. Decision-making under uncertainty is a more problematic state. We may find that two different persons with different viewpoints may suitably choose two not the same alternatives.

2.5.CHARACTERISTICS OF DECISION MAKING

Decision-making characteristics consist of (Kiran, D. R, 2016, 76).

1. Decision making is a practice of selection and the purpose is to choice the best alternative.
2. A decision is pointed at reaching the objective of a company if it is make in the company context.
3. It includes assessment of available alternatives, because only by this assessing can one see the best alternative.
4. Decision-making is a rational process and the last decision is make after studied consideration.
5. A decision comprises rationality because by this, one be able to better one's happiness.
6. Decision-making requires a particular commitment. This commitment may be short- or long-term, depending on the type of decision.

2.6.IMPORTANCE OF DECISION MAKING

As Deepak Sharma determines the importance is (**Sharma**, D., Et al, 2014, 6).

1. **Better Utilization of Resources**

   Decision-making helps to make use of obtainable resources to achieve the company's goals. Decision-making supports managers to use resources in the correct direction.
2. **Facing Problems and Challenges**

   Decision making supports the company to appearance and tackle new case and challenges. Decision making assist to solve problems and to agree to take new challenges.

3. **Busness Growth**

   Quick and correct decision making leads to better use of resources. It also assist to achieve its goals. All this leads to rapid business growth. Goals can achieve business objectives through decision making. Business grows when decisions make a good decision.

4. **Achieving Objectives**

   Organized logical decisions help achieve all of their goals quickly. This is because rational decisions are made afterward investigating and assessing all alternatives.

5. **Increases Efficiency**

   Proficiency is the relationship between revenue and cost. If the revenue are great and the cost is low, then there is competence and vice versa. Logical decisions lead to higher returns at low cost

6. **Faciitate Innovation**

   Logical decisions facilitate innovation. This is because it supports to grow new concepts, new goods, new process, etc. renewal gives a competitive benefit to the company.

7. **Motivates Emloyees**

   Normal decision results in motivation for the workers. When the logical decisions are applied the company makes great profits. So, it can give financial and non-financial interest to the employees. Decision making makes self-motivation in the attention of the employees.

2.7. MANAGEMENT ACCOUNTING FOR DECISION MAKING

A critical managerial function is decision-making. Decisions which management must make may be classified as marketing, production, and financial. Decisions may also be classified as strategic and tactical and long run and short run. A primary objective of decision-making is to achieve optimum utilization of the business's capital or resources. Effective decision-making requires relevant information and special analysis of data (www.essays.pw).

The accounting department is a primary source of information necessary in making-decisions. The accounting department is expected to provide information to all levels of management. Management will consider the accounting department capable of providing data useful in making marketing, production, and financial decisions (www.academia.edu).

In order for the accounting department to make meaningful analysis of data, it is necessary to distinguish between fixed and variable costs and other types of costs that are not important in the recording of business transactions. The accounting department will be expected to provide the information required by a specific tool. In management accounting, decision-making may be simply defined as choosing a course of action from among alternatives, as discussed earlier. If there are no alternatives, then no decision is required. A basis assumption is that the best decision is the one that involves the most revenue or the least amount of cost. The task of management with the help of the management accountant is to find the best alternative, this means that; management accountants are considered business support and internal business consultant they also perform three functions according to (Horngren et al., 2003) :

- **Scorekeeping**: accumulate data and report reliable results to all levels of management.
- **Attention directing**: make visible opportunities and problems on which managers need to focus.
- **Problem solving**: conduct comparative analysis to identify the best alternative in relation to the organization's goals.

Management accounting helps managers to administer each of these business functions:

Research and Development, Production, service process design, marketing, distribution, and customer service. Other vital outcomes of management accounting are: analysis of data, price modeling, profitability analysis, cost benefit analysis, budgeting, planning, management advice, and financial forecasting.

For each decision, there exists a management accounting tool that may be used to make a good decision. However, the management accounting tools can be used only if the management accountant is successful in providing the information demanded by the particular tool (Goosen, 2008, p. 23).

The managerial accountant’s role in the decision-making process is to provide data relevant to the decision. Managers can then use these data in preparing a quantitative analysis of the decision. Qualitative factors are considered also in making the final decision. In order to be relevant to a decision, a cost or benefit must: (1) bear on the future, and (2) differ under the various decision alternatives.

CHAPTER THREE

METHOD, DATA ANALYSES

3.1.THE STUDY BACKGROUND

3.1.1. The study Problem

Today, the management accounting process complex to filling the needs of company's accounting information, because of the development of companies and its complex process, so management accounting traditional should be replaced by modern management accounting.

The problem of this study discusses the information deficiencies in modern management accounting technique has become to provide the best data to help the management to make the right decisions based on accurate information with high transparency, in order for the company able to continue the market and to what extent the company's commitment in order to apply to modern management accounting technique in decision making.

3.1.2. Objectives of the Study

This study aims mainly at measuring the impact of using modern techniques of management accounting in the decision making process in industrial companies in the Kurdistan Region-Iraq.

1. To recognize and identify the current use of modern management accounting technique in Kurdistan industrial companies.
2. Examine the extent of the use modern management accounting techniques in decision-making process in Kurdistan industrial companies.

3.1.3. The Importance of the Study

The importance of this study is a bridge of relationship between modern management accounting technique and accounting. Also the extent of the use of modern management accounting technique in industrial companies in the Kurdistan Region in under light of the changes occurring at the global level as a result of globalization, which increased competition in different sectors.

On the other hand as contemporary challenges the increasing competition obliges these industrial companies to be able to manufacture innovative products of high quality and low cost and to provide excellent services to customers to achieve important strategic advantages in the market, which necessitates the need to apply them to modern technique of management accounting.

The importance of this study also comes from being explore the latest management accounting technique for the development of the performance of the industrial sector represented in industrial companies Kurdistan region,

Since the provision of appropriate information to helps these companies for make decisions Such as developing and improving the quality of their products and reducing the costs of these products so that they can compete in the market and stay in the new environment.

The economic importance of this thesis lies in what the study's conclusions are expected to clarify along with its recommendations in order to achieve the desired value added to the company and the benefit of other stakeholders.

3.1.4. The Hypotheses of Study

The First Main Hypotheses

In view of the problem of the study and its objectives, these hypotheses will be statistically tested to realize the results and recommendations.

There is a positive correlation between modern management accounting in decision making.

The three sub- hypothesis that derives from the First Main Hypotheses are:

1. There is a positive correlation between the budget and decision making.
2. There is a positive correlation between the activity based costing and decision making.
3. There is a positive correlation between target costing systems and decision making.
4. There is a positive correlation between the customer profitability and decision making.
5. There is a positive correlation between the just in time and decision making.
6. There is a positive correlation between the total quality management and decision making.

7. There is a positive correlation between the balanced scorecards and decision making.
8. There is a positive correlation between the financial statement analysis and decision making.

The Second Main Hypotheses

There is statistically a significant impact of modern management accounting in decision-making.

The eight sub- hypothesis that derives from the second main Hypotheses are:

1. There is statistically a significant impact of budget on decision-making.
2. There is statistically a significant impact of activity based costing on decision-making
3. There is statistically a significant impact of target costing on decision-making.
4. There is statistically a significant impact of customer profitability on decision-making.
5. There is statistically a significant impact of just in time on decision-making.
6. There is statistically a significant impact of total quality management on decision-making.
7. There is statistically a significant impact of balanced scorecards on decision-making.
8. There is statistically a significant impact of financial statement analysis on decision-making.

3.1.5. Reasons for Selecting This Topic

1. **Personal reasons:**

• The nature of the researcher specialization that he is studying, as this subject is entered into his fields.

• Researcher feeling of importance of this topic especially with the recent trends towards more attention to human resources.

3.1.6. Objective Reasons

1- The importance of the impact of use of modern management accounting in decision making

2- The subject of this study is one of the topics that has not been addressed by local researchers in Kurdistan region universities.

3- The highlight and attention of researchers in Iraqi Kurdistan region institutions to focus on modern management accounting.

3.1.7. Definitions of Study Variables

Independent variables:

1. Budget
2. Activity based costing
3. Target costing
4. Customer profitability
5. Just in time
6. Total quality management
7. Balance scorecard
8. Financial statement analysis

Dependent variables:

1. Decision-making process.

3.1.8. Preview Study

1. (Al-Melhem, 2003): "Application of Management Accounting Technique in Industrial Companies in the Kingdom of Saudi Arabia".

The objective of this study is to know the opinions of the managers of the accounting departments in the industrial companies In the Kingdom of Saudi Arabia on the appropriateness of accounting management information in their establishments it also aims to identify the extent to which management accounting technique and tools are used, whether traditional or modern.

The results of this study are:

- There is a weakness in the use of modern management accounting technique in industrial companies in the Kingdom of Saudi Arabia.
- The continuous control of the traditional technique of management accounting systems due to widest used than modern methods.

2. (Yeshmin and Hossan, 2011): Significance of Management Accounting Techniques in Decision-making "An Empirical Study on Manufacturing Organizations in Bangladesh".

In facilitating the, decision, making, process, need, to collect and report financial information data. As national accounting standard is not required to conform to management accounting, it allows business to customize the management accounting techniques as per demand of company as a process of this allocation some advanced quantitative as well as a number of qualitative techniques accompany with traditional techniques have emerged to meet the need for information in decision making. This study attempts to evaluated the significance of management accounting techniques in the decision making process to selected manufacturing organizations in Bangladesh.

In doing so, a total of 74 manufacturing organizations have been surveyed with a structured questionnaire by using 5 point Liker Scale measurement from different categories of manufacturing organizations. Findings reveal that cash flow statement analysis, ratio analysis, budgetary control, variance analysis and fund flow analysis have been frequently high ranking techniques. Secondly, the authors have recognized five factors to calculate the variability in decision making with the help to rotated component matrix which shows that 75.125 % of the total variability has found in the usage of management accounting techniques. Finally, it is also found by using multiple regression model that only 25.6% of the variation in decision making of manufacturing organizations in Bangladesh.

3. (Husam Subhi Hilles, 2012) "The Extent of Applying Managerial Accounting Techniques in Planning, Controlling, and Decision-Making"

This study aims to examine the extent of applying managerial accounting techniques and practices in implementing planning, controlling, and decision-Making process in the Palestinian companies listed in Palestine Exchange and working in Gaza strip. The objectives of the study were to follow the analytical descriptive approach and to obtain the data through the distribution the questionnaire is based on the study population of 14 companies operating in different sectors. A total of 55 questionnaires were distributed Accountants and financial managers in these companies.

The results supported the positive association between respondents' managerial accounting knowledge and using it in implementing planning, controlling, and decision-making, but the correlation coefficient interlinked these relations is still low. Results reveal organizational size as an influential characteristic in explaining the relative importance of planning and controlling by using managerial accounting techniques. The study recommends that it would be better for the Palestinian companies apply modern techniques such as TQM, BSC, and ABC in order to improve the whole company performance.

4. (Sumkaew, et al., 2012): "Management Accounting Practices in Thailand)

The study's objectives was to explore the practice of traditional and modern management accounting practices in companies listed on the Thailand Stock Exchange (2012), using field survey of (465) And comparing the results of the survey with the results of four previous studies, The preliminary results of this study showed that the confidence of companies in traditional management accounting methods has not changed since the financial crisis in 1997, The managers of these companies continue to draw on the practice of traditional management accounting methods, And avoid the practice of modern management accounting methods, because of the lack of experience from the establishment , and follow the centralization of management and attempt to avoid modern methods to be sure of their results.This study proposed a study comparing the use of modern methods of management accounting with companies in countries with different cultures.

5. (Mahar Abedullah Al-Khalil, 2012) "Applying Modern Techniques of Managerial Accounting in the Jordanian Industrial Public Shareholding Companies"

The study aimed to show the application of new managerial accounting techniques in Jordan industrial public shareholding companies, and to investigate the difficulties that hinder the use of such techniques in the mentioned companies. To achieve these goals data were collected from shareholding companies through questionnaire design according to study objectives and hypotheses. The questionnaire has been distributed over a sample totaling (109) employees in accounting departments in the studied companies. The study concluded the following:

1 – Study findings show that Jordan public shareholding industrial companies apply new managerial accounting techniques through the five dimensions that form this application which this study handled.

2 – Study findings reported that Jordan public shareholding industrial companies apply activity based costing with high degree.

3-Study findings reported that Jordan public shareholding industrial companies apply targeted costing system with high degree.

4-Study findings reported that Jordan public shareholding industrial companies are implementing customers profitability analysis system with high degree.

6. (Chenhall and Lang field-Smith,1998) "Adoption and Benefits of Management Accounting Practices: An Australian Study"

The study meant to know the methods of management accounting applied in companies. The study displayed that:

Percentage of the application of modern management accounting. 76% of companies apply variable cost method, 80% of companies apply the method of absorbed costs, 56% of companies apply cost-based activity method, and 38% of enterprises apply the cost-target method.

7. (Simon, et al., 2005) "A Cross-Industry Comparative Analysis of Strategic Management Accounting Techniques Application: Evidence From Slovenia"

The study pursue to evaluate the various management accounting methods in Slovenian companies as well as comparing the application of different management accounting methods between different industries. To achieve these objectives, the study used the questionnaire to get data 500 questionnaires were dispersed by e-mail. The number of responding companies was 193 companies amount to 49.7%.

The study is as follows:

- More management accounting methods used by the Slovenian companies budgeting method the greatest common technique of management accounting by Slovenian companies is the method of capital budgets followed by an evaluation of the completion of competitors and then controlling the status of competitors.

The least used methods by Slovenian companies are customer valuation method as assets, followed by an analysis of the Period of life of the customer's profitability and then the cost of the product life cycle.

- There's a difference in the application of management accounting methods between different industrial sectors, and that usage rates are clear between seven methods of industries (Capital budgets, Evaluation of competitors' achievement, Control the status of competitors, Pricing strategy, Cost of quality, Comparisons, Analysis of customer profitability, Estimate the cost of competitors) Sectors usually used methods of management accounting industry, transportation, while the least commonly used methods of management accounting are general services and construction.

8. (Mitchell, 1996) " Activity-Based Costing in UK Universities ".

The meant of this study is to apply the cost-based activities system in British universities the survey work to use the cost based on activities method In British universities in 1994.

Turns out that five explorer opinions used this cost method most of them acknowledge their great benefits determine the value of the development and perception of the cost and details of the organization.

The most important results and recommendations were as follows:

1. The power of the activity-based cost method for application in universities through the satisfaction of the related in universities that have applied the system for the results that have been done achieved.
2. This method provides senior management with detailed and accurate information on the cost truth, which helps management to make right management decisions.
3. Cost activities methods participate in increasing the competitive of the university it uses.

9. (Hadidi, 2005) “The extent of the use of management accounting methods in the Jordanian public shareholding industrial companies and their impact on performance”

The goals of the study is to explain the extent of the use of the Jordanian Public Shareholding industrial companies for different methods of management accounting in decision making, planning and control. It also aimed to study, the relation between the degree of the company's application of different management accounting methods and their financial performance.

It also aims to identify the difficulties in using different management accounting methods in decision making, control and planning, detect the degree of variation in the extent of the usage of these methods between the Jordanian manufacturing companies.

The study reached a number of results, the most important of which are:

- The average ratio use of accounting management methods by companies was 66.6%, while the average use of decision-making methods was 63.3%, simultaneously, the percentage of planning and control was 66.1% and 70.2%.
- The study also found that the use of management accounting methods related to comparisons of business results with previous years is the most widely used and 92.5% followed by operative and financial budgets in accounting responsibility and performance reports.
- The study found a significant relationship between the use of management accounting methods as a whole and the size of the company.

3.2. METHODOLOGY OF STUDY

The study followed the analytical discretion survey method in order to test the hypotheses and to show the results and recommendations of the study and the result of the study measuring the impact of using modern management accounting in decision making in the industrial companies in the Kurdistan region.

This study depends on the method of descriptive analytical. This method is examines how far modern management accounting impacts the decision of the industrial company. This dissertation administrated the approach of quantitative study that means "a type of study that is descriptive phenomena by meeting numerical data that are analyzed using mathematically based method (Creswell, 2003) since it preparing and developing a questionnaire survey.

The reason for choosing this methodology is because of the size of the expand population study and large number of memberships arrive rate to (106) participation, that is way easier in this quantitative methodology, and we need short time for study, because that way is better for us. While, a survey questionnaire designed and developed in order to collect data from the participants, as primary data is implications of methods and is closely related to the techniques of data collection. In the table (3.1) show the questionnaire instrument includes three sections.

Table 3.1 Distributed and Returned Questionnaire

ID	**Survey**	**Items**	**No. of Items**	**Source**
1	BIOGRAPHICAL DATA	-	5	Mahar Abdullah Khalil,2012
2	BUDGET	X1-X3	3	
	ACTIVITY-BASED-COSTING	X4-X7	4	
	TARGET COSTING	X8-X11	4	
	CUSTOMER PROFITABILITY ANALYSIS	X12-X14	4	
	JUST-IN-TIME CONCEPT	X15-X18	4	
	TOTAL QUALITY MANAGEMENT	X19-X22	4	
	BALANCED SCORECARDS	X23-X26	3	
	FINANCIAL STATEMENT ANALYSIS	X27-X29	3	
3	DECISION MAKING	Y1-Y10	10	Husam Subhi Hilles,2012
	TOTAL		44	

3.2.1. Population study

The study population is composed of several the companies industrial, services companies, and business companies, bank, government institutions, in the Kurdistan region / Erbil city.

3.2.2. Sample Study

The population of study according to (Sekaran & Bougie, 2010, 443) is "the entire group or people, events, or things that the researcher desires to investigate". A snow ball sample was selected of the industrial companies in the Kurdistan Region.

It is characterized by the use of advanced manufacturing systems, because these companies may be more need to use modern management accounting than other companies in other sectors. The sample of the study consisted of financial managers and employees in financial departments and accounting departments, statisticians, economists and administrators, (120) questionnaires were distributed (106) were replied in the rate of (88.33%) was valid for statistical analysis purposes.

3.2.3. Collection of Data

So as to reach the objectives of the study descriptive analytical method used, where this study's aims to study the reality of the use of modern management accounting in industrial companies in the Kurdistan region, The study was based on two sources, Secondary data was obtained through review researcher of the literature such as books, scientific journals, statistical publications, previous studies related to the subject of study.

Primary sources in the collection of data by looking at the practical side of the distribution of questionnaires to study some of the vocabulary of research and inventory and collect the necessary information on the subject of the search, questionnaire comprised two parts:

1. The first part contains general information related to some demographic and functional factors that includes:
   A. Levels of education were calcified into four categories: high diploma degree, BSc. degree, MSc. degree, and PhD. degree.
   B. Specialization positions were calcified into five categories: Accounting, Economy, Business administration, Banking and finance, and Statistics, and those respondents without Specialization position.
   C. Job title of participants, were calcified into four categories: manager director, financial manager, Accountant, Auditor.
   D. Years of experience, were calcified into four categories: Less than 5 years, 5-10 years, 11-15 years, and more than 15 years.
2. The second part of the questionnaire included a set of closed questions aims to measure the level of modern management accounting in decision making "budget, cost based on activity, target costing, just in time, customer profitability analysis, of Total-quality-management, and financial analyses and

decision making " from the perspective of the academic leaderships in different institutions or companies and for each element 3-4 close ended questions with the use of a five point Liker scale.

3.2.4. Statistical Treatment

For the purpose of obtaining the study objectives and testing the hypotheses, researcher adopted on Statistical Package for Social Sciences (SPSS) software in the analysis the questionnaires items through the use of the following statistical methods:

1. Cronbach’s Alpha to measure the reliability of study.
2. Descriptive Statistical Measures: to describe the characteristics of the respondents depending on frequencies, means, standards deviations, the percentages, rankings study variables.
3. Pearson Correlations Coefficients: to find out the relationship between independent variables and dependent variables.
4. Multiple Regression Analysis: to test the validity of the model as well as examine the impact of independent variables on the dependent variable.
5. Factor: used to determine if any of the independent variables comprise common underlying dimensions.

3.2.5. Data Measurement

In order to be able to select the appropriate method of analysis, is explained in the table (3), the level of measurement must be understood. For each type of measurement, there are an appropriate methods that can be applied and not others. In this study, ordinal scales were used. Ordinal measure is a ranking or a rating data that usually uses numerals in ascending or descending order. Five Likert scale have been using with respect to respondents' answers. Taking into consideration that the measure used in the study included the following:

Table 3.2 five point likert scale

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
5	4	3	2	1

In addition, the values of mean of variables were measured according to Universal analysis for the purpose of evaluating the attributes of variables individually based on the responses.

Table 3.3 Rang

Rang	Decision Rule	
1 – 2.49	Low Level	Strongly Disagree
2.50 – 3.49	Moderate Level	Uncertain
3.50 – 5	High Level	Strongly Agree

3.2.6. Reliability Statistics

The reliability of the questionnaire made sure through using the coefficient of Cronbach's Alpha to study the reliability of the questionnaire, is showed in the table (3.4). According to Sekaran (2003) the coefficient of Cronbach's Alpha is a reliability coefficient that reflects how well the items in a set are positively correlated to one another. further indicates that if the coefficients of Cronbach's Alpha result are between 0.00 to 0.50 has poor reliability, the coefficients of Cronbach's Alpha results between 0.50 - 0.70 is consider to be a moderate reliability, the coefficients of Cronbach's Alpha results between 0.70 - 0.90 represents high reliability،Published with written permission from SPSS Statistics, we can see that Cronbach's alpha is 0.770, which indicates a good level of internal consistency for our scale with this specific sample.

Table 3.4 Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.770	39

3.3.RESULTS OF STUDY

3.3.1. Respondents Demographics Analysis

3.3.1.1. Job Title

Figure (3.1) shows that: frequencies include (10) respondent and the percentage equal (9.4%) of the study population in job title " director administrative", frequency comprise (14) respondent and percentage is reached (13.2%) of the study population in their job title "Financial manager", frequencies consist of (47) and percentage 44.3% of the study population in job title "Accountant". Frequencies include (11) respondent and percentage (10.4%) of the study population in job title "Auditor ". And. Frequency involved (24) respondent and percentage 22.6% of the study population in job title "Others". On the questionnaire are individuals familiar with the activities of the establishment, and an indication that the answers will be a level of accuracy and objectivity.

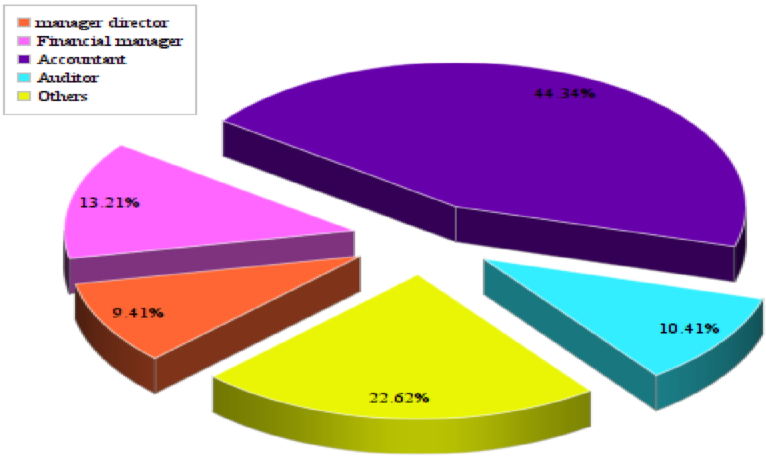

Figure 3.1 Job title

3.3.1.2. Educational attainment

Is evident from Figure number (3.2), the frequency of holders of a diploma include (5) respondent and percentage consist of 4.7% and a holders Bachelors certificate has reached (69) respondent and 65.1%, the holders Masters Certificate has participated of (30) respondent and 28.3%, percentage comprise 0.9% with (1) frequency in study population has a "Doctorate", and %, percentage comprise 0.9% with (1) frequency in study population has an "Others ". This shows that the majority of respondents in the study population a master and a bachelor's degree holder.

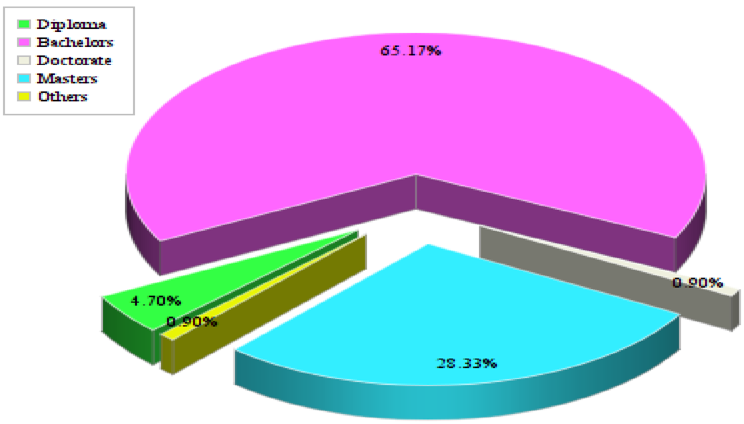

Figure 3.2Educational attainment

3.3.1.3. Specialization

Figure number (3.3) shows that: frequencies include (48) respondent and the percentage equal (45.3%) of the study population in specialization "accounting", frequency comprise (5) respondent and percentage is reached (4.7%) of the study population in their specialization "Economy", frequencies consist of (25) and percentage 23.6% of the study population in specialization "Business administration". Frequencies include (8) respondent and percentage (7.5%) of the study population in specialization "Banking and finance ". Frequency involved (10) respondent and percentage 9.4% of the study population in specialization "Statistics". And Frequency involved (10) respondent and percentage 9.4% of the study population in specialization "Other". On the questionnaire are individuals familiar with the activities of the establishment, and an indication that the answers will be a level of accuracy and objectivity.

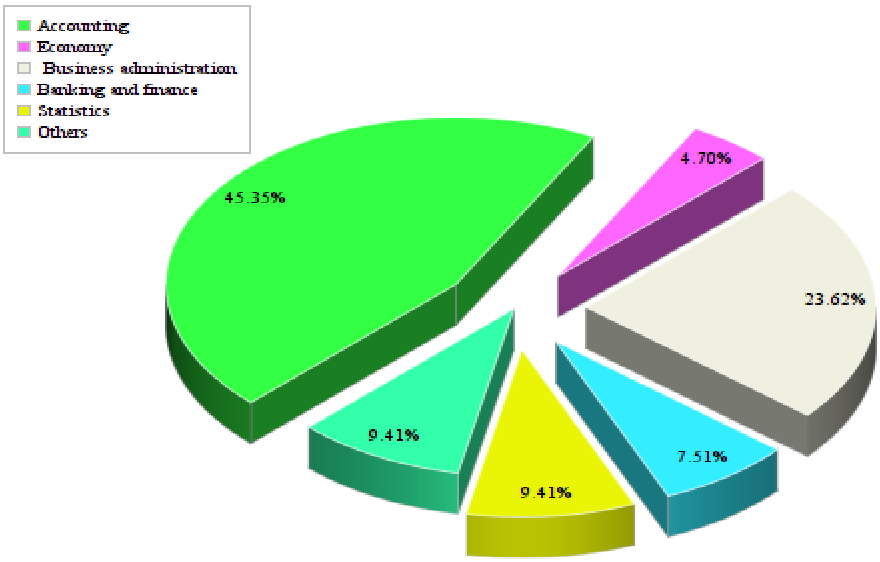

Figure 3.3 Specialization

3.3.1.4. Job place

Figure number (3.3) shows that: 52.38% of the study population in job title "Industrial Company", 3.77% of the study population in work location "Service Company", 1.89% of the study population in work location "Bank". 17.92% of the study population in job title "Government department ". 13.21% of the study population in job title "business". And 10.38% of the study population in job title "Other". On the questionnaire are individuals familiar with the activities of the establishment, and an indication that the answers will be a level of accuracy and objectivity.

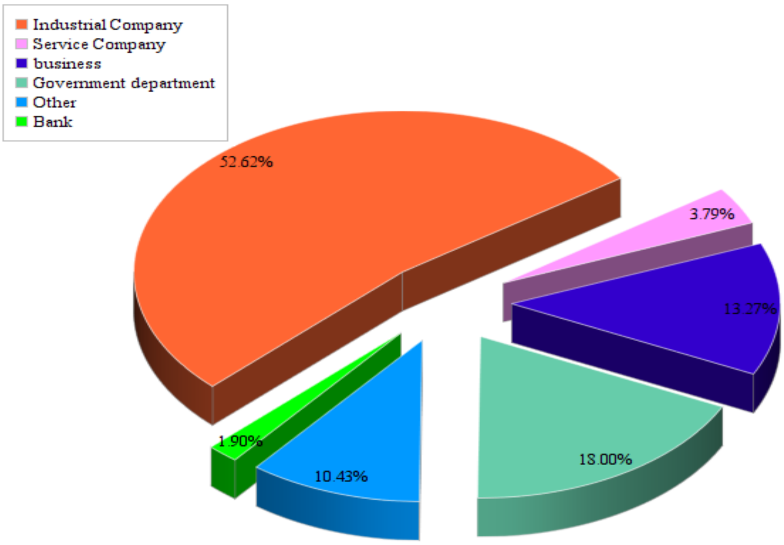

Figure 3.4 Job place

3.3.1.5. Duration of experience in the present post

The figure (3.5) explains the respondent years of experience, the majority of respondent were equal 56 persons with (%52.8) years of experience are between 5-10 years. Secondly, respondent reach to 24 participation and (%22.6) their years of experience are between 11 – 15 years. Thirdly, field of experience are less than 5 years consist of 19 respondent and (%17.9). Finally, their years of experience are more than 15 years include 7 respondent with (%6.5)

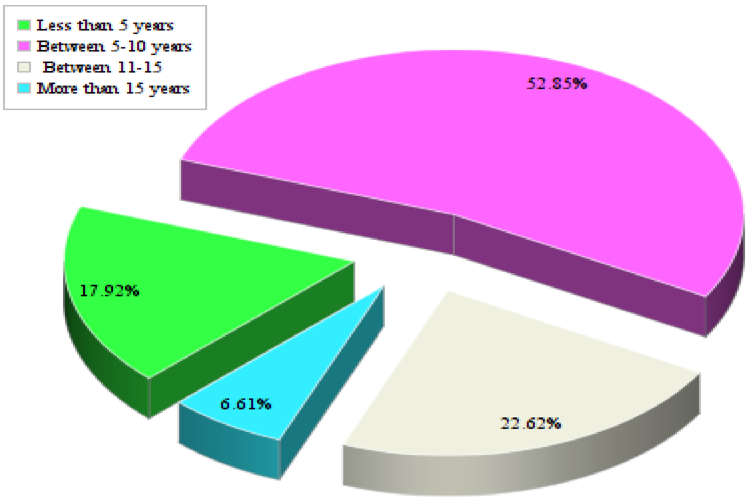

Figure 3.5 Duration of experience

3.3.2. Descriptive Analysis of Study Variables Modern management accounting

In present study, modern management accounting by sex dimensions "budget, cost based on activity, target costing, just in time, customer profitability analysis ". For each element frequency distribution, percentages, means, and standard deviations have been illustrated as the following:

3.3.2.1. Analysis of the Budget

The table below (3.5) shows the analysis of recruitment and selection questions through the frequency distribution, percentages, means, and standard deviations for the 3 questions. The general average of impact of the budgeting in decision making and selection (X1-X3) reached a high level of contribution through the mean of (3.94654).

From the table, the important question is question (X2) that contributes to budget in decision and selection based on the percentages to strongly agree and agree is (85.8%) that the question states "Budgeting assist companies administration in determining goals for the subsequent period." this question reached a mean and standard deviation of (4.16037) - (0.90645) respectively.

On the other hand, the lowest contribute question is (X3) that the question states "Estimated budget used in evaluation for all company directorates activities administrate of company to select appropriate alternative among the alternatives that are available in decision making." that reached a mean and standard deviation of (3.78301)- (1.17111) respectively.

Table 3.5 Analysis budget

		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X1	Percent	22.6	56.6	11.3	6.6	2.8	3.8962	0.92509
	Frequency	24	60	12	7	3		
	Cumulative Percent	22.6	79.2	90.6	97.2	100.0		
X2	Percent	39.6	46.2	5.7	7.5	.9	4.16037	0.90645
	Frequency	42	49	6	8	1		

	Cumulative Percent	39.6	85.8	91.5	99.1	100.0		
X3	Percent	31.1	38.7	13.2	11.3	5.7	3.78301	1.17111
	Frequency	33	41	14	12	6		
	Cumulative Percent	31.1	69.8	83.0	94.3	100.0		
	AVERAGE						3.94654	1.00088

3.3.2.2. Analysis of the Activity Based Costing

The table below (3.6) illustrates the analysis of activity based costing questions through the frequency distribution, percentages, means, and standard deviations for the 4 questions (4-7). The general average of training and development questions (4-7) reached a high level of contribution through the mean of (3.8797).

From the table, the important question is question (X7) that contributes to impact activity based costing in decision making based on the percentages to strongly agree and agree is (28.3%), (43.4%) that the question states " The increasing additional indirect coasts intend company uses activity-based-costing system." this question reached a mean and standard deviation of (3.9528), (1.00837) respectively.

On the other hand, the lowest contribute question is (X6) that the question states " The application of activity -based- costing system helps in improving competitive feature in company." that reached a mean and standard deviation of (3.7264), (1.0377) respectively.

	Table 3.6 Analysis activity based costing							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X4	Percent	14.2	44.3	25.5	13.2	2.8	3.8962	0.91474
	Frequency	15	47	27	14	3		
	Cumulative Percent	14.2	58.5	84.0	97.2	100.0		
X5	Percent	33.0	50.9	11.3	3.8	.9	3.8019	0.88823
	Frequency	35	54	12	4	1		
	Cumulative	33.0	84.0	95.3	99.1	100.0		

	Percent							
X6	Percent	35.8	46.2	8.5	8.5	.9	3.7264	1.0377
	Frequency	38	49	9	9	1		
	Cumulative Percent	35.8	82.1	90.6	99.1	100.0		
X7	Percent	28.3	43.4	13.2	9.4	5.7	3.9528	1.00837
	Frequency	30	46	14	10	6		
	Cumulative Percent	28.3	71.7	84.9	94.3	100.0		
	AVERAGE						3.8797	0.9669

3.3.2.3. Analysis of the Target Costing

In the table (3.7) shows the analysis of target costing questions through the frequency distribution, percentages, means, and standard deviations for the 4 questions (4-7). The general average of training and development questions (4-7) reached a high level of contribution through the mean of (3.8491).

From the table, the important question is question (X11) that contributes to impact target costing in decision making based on the percentages to strongly agree and agree is (33.0%), (43.4%) that the question states "Depending on target-coasting in the company's lead to improve quality of product." this question reached a mean and standard deviation of (3.9528), (1.00837) respectively.

On the other hand, the lowest contribute question is (X10) that the question states " Using of target-costing method will lead to the provision desired products or services by the customer" that reached a mean and standard deviation of (3.7264), (1.03770) respectively

	Table 3.7 Analysis Target Costing							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X8	Percent	26.4	46.2	18.9	7.5	.9	3.8962	0.91474
	Frequency	28	49	20	8	1		
	Cumulative Percent	26.4	72.6	91.5	99.1	100.0		

X9	Percent	16.0	61.3	11.3	9.4	1.9	3.8019	.88823
	Frequency	17	65	12	10	2		
	Cumulative Percent	16.0	77.4	88.7	98.1	100.0		
X10	Percent	17.9	57.5	8.5	11.3	4.7	3.7264	1.03770
	Frequency	19	61	9	12	5		
	Cumulative Percent	17.9	75.5	84.0	95.3	100.0		
X11	Percent	33.0	43.4	10.4	12.3	.9	3.9528	1.00837
	Frequency	35	46	11	13	1		
	Cumulative Percent	33.0	76.4	86.8	99.1	100.0		
	AVERAGE						3.8443	0.9521

3.3.2.4. Analysis Customer Profitability

The table below (3.8) illustrates the analysis of customer profitability questions through the frequency distribution, percentages, means, and standard deviations for the 4 questions (X12-X15). The general average of training and development questions (X4-X7) reached a high level of contribution through the mean of (3.9057).

From the table, the important question is question (X13) that contributes to impact customer profitability in decision making based on the percentages to strongly agree and agree is (43.4%), (49.1%) that the question states " To build an interactive relationship between customers and administrate efficiently, is considered as a necessary step in continuation of the company activates" this question reached a mean and standard deviation of (4.3113), (0.7479) respectively.

On the other hand, the lowest contribute question is (X15) that the question states "The company focuses on each customer when analyzing profitability." that reached a mean and standard deviation of (3.5283), (1.0972) respectively.

	Table 3.8 Analysis Customer Profitability							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X12	Percent	28.3	52.8	15.1	3.8	0	4.0566	0.7663
	Frequency	30	56	16	4	0		
	Cumulative Percent	28.3	81.1	96.2	100.0	100		
X13	Percent	43.4	49.1	2.8	4.7	0.0	4.3113	0.7479
	Frequency	46	52	3	5	0		
	Cumulative Percent	43.4	92.5	95.3	100.0	100.0		
X14	Percent	31.1	32.1	16.0	19.8	.9	3.7264	1.1342
	Frequency	33	34	17	21	1		
	Cumulative Percent	31.1	63.2	79.2	99.1	100.0		
X15	Percent	21.7	34.9	17.9	25.5	0.0	3.5283	1.0972
	Frequency	23	37	19	27	0		
	Cumulative Percent	21.7	56.6	74.5	100.0	100.0		
	AVERAGE						3.9057	0.9364

3.3.2.5. Analysis just in time

The table below (3.9) explains the analysis of just in time production questions through the frequency distribution, percentages, means, and standard deviations for the 4 questions (X16-X19).The general average of just in time production questions (X16-X19) reached a high level of contribution through the mean of (3.8491).

From the table (4-5), the important question is (X18) that contributes to enhance the just in time production based on the percentages to strongly agree and agree is (24.5%), (61.3%). That the question states "Company has special unit for observation of product quality, to ensure applying Just-in-time products system." this question reached a mean and standard deviation of (4.0377), (0.7798) respectively.

On the other hand, the lowest contribute is (X17) that the question states " The application of Just-in-time products system in the company helps satisfaction to delivery customers order requirements according to quantity and quality as agreed upon it previously. "That reached a mean and standard deviation of (3.6887), (1.1577) respectively.

	Table 3.9 Analysis just in time							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X16	Percent	25.5	42.5	17.0	13.2	1.9	3.7642	1.0379
	Frequency	27	45	18	14	2		
	Cumulative Percent	25.5	67.9	84.9	98.1	100.0		
X17	Percent	29.2	33.0	18.9	15.1	3.8	3.6887	1.1577
	Frequency	31	35	20	16	4		
	Cumulative Percent	29.2	62.3	81.1	96.2	100.0		
X18	Percent	24.5	61.3	8.5	4.7	.9	4.0377	0.7798
	Frequency	26	65	9	5	1		
	Cumulative Percent	24.5	85.8	94.3	99.1	100.0		
X19	Percent	32.1	41.5	12.3	13.2	.9	3.9057	1.0284
	Frequency	34	44	13	14	1		
	Cumulative Percent	32.1	73.6	85.8	99.1	100.0		
	AVERAGE						3.8491	1.0010

3.3.2.6. Total Quality Management

The table below (3.10) explains the analysis of just in time production questions through the frequency distribution, percentages, means, and standard deviations for the 4 questions (X20 -X23).The general average of just in time production questions (X20 - X23) reached a high level of contribution through the mean of (3.6887)

From the table (4-9), the important question is (X-23) that contributes to enhance the just in time production based on the percentages to strongly agree and agree is (34.9%), (46.2%). That the Question States "senior management is focusing on customer satisfaction and they successful in understanding their expectations."

and customer satisfaction." this question reached a mean and standard deviation of (4.0660), (.91827) respectively. On the other hand, the lowest contribute question is (X-22) that the question states "Reducing costs of services provided that doesn't affect the quality." that reached a mean and standard deviation of (2.8208), (1.32232) respectively.

	Table 3.10 Analysis Total Quality Management							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X20	Percent	34.9	40.6	12.3	9.4	2.8	3.9528	1.05453
	Frequency	37	43	13	10	3		
	Cumulative Percent	34.9	75.5	87.7	97.2	100.0		
X21	Percent	30.2	49.1	5.7	12.3	2.8	3.9151	1.05214
	Frequency	32	52	6	13	3		
	Cumulative Percent	30.2	79.2	84.9	97.2	100.0		
X22	Percent	9.4	32.1	8.5	31.1	18.9	2.8208	1.32232
	Frequency	10	34	9	33	20		
	Cumulative Percent	9.4	41.5	50.0	81.1	100.0		
X23	Percent	34.9	46.2	10.4	7.5	.9	4.0660	.91827
	Frequency	37	49	11	8	1		
	Cumulative Percent	34.9	81.1	91.5	99.1	100.0		
	AVERAGE						3.6887	1.0868

3.3.2.7. Balanced Scorecards

The table below (3.11) explains the analysis of just in time production questions through the frequency distribution, percentages, means, and standard deviations for the 5 questions (X24 -X26).The general average of just in time production questions (X24-X26) reached a high level of contribution through the mean of (3.8585)

From the table (24), the important question is question (X24) that contributes to enhance the just in time production based on the percentages to strongly agree and agree is (33%), (44.3%) that the question states "The company administration cares the performance measurements that relates to product quality and customer satisfaction" this question reached a mean and standard deviation of (3.9717), (1.00908) respectively. On the other hand, the lowest contribute question is (X25) that the question states "The Balanced-score-cards evaluate performance indicators in level: financial, customer services, Regenerative processes, training and developing products in making strategic plan for the company" that reached a mean and standard deviation of (3.7830), (.81655) respectively.

	Table 3.11 Analysis Balanced Scorecards							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X24	Percent	33	44.3	12.3	7.5	2.8	3.9717	1.00908
	Frequency	35	47	13	8	3		
	Cumulative Percent	33	77.4	89.6	97.2	100		
X25	Percent	15.1	56.6	20.8	6.6	0.9	3.7830	0.81655
	Frequency	16	60	22	7	1		
	Cumulative Percent	15.1	71.7	92.5	99.1	100		
X26	Percent	25.5	48.1	12.3	11.3	2.8	3.8208	1.03092
	Frequency	27	51	13	12	3		
	Cumulative Percent	25.5	73.6	85.8	97.2	100		
	Average						3.8585	0.9522

3.3.2.8. Analysis Financial statement

In the table (3.12) explains the analysis of just in time production questions through the frequency distribution, percentages, means, and standard deviations for the 3 questions (X26 -X29).The general average of financial statement analysis questions (X26 -X29) reached a high level of contribution through the mean of (3.9403)

From the table (29), the important question is question (X28) that contributes to enhance the financial statement based on the percentages to strongly agree and agree is (29.2%), (46.2%) that the question states " The value of the company is exalted through complete disclosure of its financial position by analyzing its financial statements" this question reached a mean and standard deviation of (3.9245) - (.99233) respectively. On the other hand, the lowest contribute question is (X29) that the question states "The company uses liquidity analysis ratios to determine the ability of company to meet its financial obligations." that reached a mean and standard deviation of (3.6415), (1.19673) respectively.

	Table 3.12 Analysis Financial statement							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
X27	Percent	18.9	52.8	21.7	5.7	.9	3.8302	.83349
	Frequency	20	56	23	6	1		
	Cumulative Percent	18.9	52.8	21.7	5.7	.9		
X28	Percent	29.2	46.2	16.0	4.7	3.8	3.9245	.99233
	Frequency	31	49	17	5	4		
	Cumulative Percent	29.2	75.5	91.5	96.2	100.0		
X29	Percent	25.5	40.6	13.2	14.2	6.6	3.6415	1.19673
	Frequency	27	43	14	15	7		
	Cumulative Percent	25.5	66.0	79.2	93.4	100.0		
	Average						3.79873	1.00751

3.3.2.9. Arranging the technique of Modern management Accounting According To The Degree of Use In Companies

The study listed in the table (3.13) under four rating categories as shown in the table. Responses obviously reflect a high level of knowledge amongst the 106 respondents in the included management accounting technique generally; the most highly ranked are budgets and financial statement analysis. While the use of the budgets was ranked first in the table, with a mean arched of (4.0409). Usage the Financial statement analysis take system over rank second with the arithmetic mean (3.9481). Usage the Customer profitability system take over rank second third with the arithmetic mean (3.9057), and While the use of the Activity based costing was ranked fourth, with an mean of (3.8962). So also the use of the Balance scorecard to evaluate was ranked fifth, with a main of (3.8585). On the other side that is table declare target costing in ranked sixth with a mean a reach (3.8491). Usage the Just in time analysis system take over rank seventh with the arithmetic mean (3.8491). The final ranking is Total quality management containing a mean of (3.6887).

Table 3.13 Ranks of modern management accounting

Independent Variables		Mean	Std. Deviation	Rank	Approval degree
1	Budget	4.0409	0.9166	1	High level
2	Activity based costing	3.8962	0.9406	4	High level
3	Target costing	3.8443	0.9521	7	High level
4	Customer profitability	3.9057	0.9364	3	High level
5	Just in time	3.8491	1.0010	6	High level
6	Total quality management	3.6887	1.0868	8	High level
7	Balance scorecard	3.8585	0.9522	5	High level
8	Financial statement analysis	3.9403	0.9147	2	High level

3.3.2.10. Analysis Decision making

The table below (3.14) discover the analysis of decision making questions through the frequency distribution, percentages, means, and standard deviations for the (10) questions .The general average of decision making questions (Y1-Y10) reached a high level of contribution through the mean of (3.9575).

From the table (4-13), the important question that contributes to enhance the decision making based on the percentages is (Y2) that the question states "The company uses activity-based-costing as a tool for making pricing decisions." this question reached a mean and standard deviation of (4.2736), (0.7992) respectively.

On the other hand, the lowest contribute question is (Y8) that the question states "Using of Balanced-score-cards system leads to improving produce decision." that reached a mean and standard deviation of (3.6792), (0.9517) respectively.

	Table 3.14 Analysis decision making							
		Strongly agree	Agree	Uncertain	Dis- agree	Strongly disagree	mean	St. deviation
Y1	Percent	25.5	37.7	17.9	14.2	4.7	3.6509	1.14678
	Frequency	27	40	19	15	5		
	Cumulative Percent	25.5	63.2	81.1	95.3	100.0		
Y2	Percent	43.4	46.2	4.7	5.7	0.0	4.2736	0.7992
	Frequency	46	49	5	6	0		
	Cumulative Percent	43.4	89.6	94.3	100.0	100.0		
Y3	Percent	24.5	51.9	17.0	3.8	2.8	3.9151	0.90625
	Frequency	26	55	18	4	3		
	Cumulative Percent	24.5	76.4	93.4	97.2	100.0		
Y4	Percent	24.5	50.9	17.0	4.7	2.8	3.8962	0.92509
	Frequency	26	54	18	5	3		
	Cumulative Percent	24.5	75.5	92.5	97.2	100.0		
Y5	Percent	23.6	55.7	15.1	5.7	0.0	3.9717	0.78628
	Frequency	25	59	16	6	0		
	Cumulative Percent	23.6	79.2	94.3	100.0	100.0		
Y6	Percent	24.5	58.5	11.3	4.7	.9	4.0094	0.79875
	Frequency	26	62	12	5	1		
	Cumulative Percent	24.5	83.0	94.3	99.1	100.0		
Y7	Percent	37.7	43.4	3.8	11.3	3.8	4	1.1041
	Frequency	40	46	4	12	4		
	Cumulative Percent	37.7	81.1	84.9	96.2	100.0		
Y8	Percent	15.1	52.8	20.8	7.5	3.8	3.6792	0.95166
	Frequency	16	56	22	8	4		
	Cumulative Percent	15.1	67.9	88.7	96.2	100.0		
Y9	Percent	21.7	54.7	14.2	5.7	3.8	3.8491	0.9541
	Frequency	23	58	15	6	4		
	Cumulative Percent	21.7	76.4	90.6	96.2	100.0		
Y10	Percent	26.4	49.1	17.0	4.7	2.8	3.9151	0.9372
	Frequency	28	52	18	5	3		
	Cumulative Percent	26.4	75.5	92.5	97.2	100.0		
	Average						3.9575	0.9081

3.4. TESTING THE STUDY HYPOTHESES

3.4.1. Examine the Correlation between Modern management accounting and Decision making

The table (3.15) demonstrates the analysis result of the first main hypothesis In order to examine this hypothesis along with its sub-hypotheses the coefficient of Pearson's correlation was administrated. The table shows that modern management accounting positively correlated with decision making as the Pearson correlation value was (0.631**) at the significance level (0.01) that reached the significant value of (0.000). As a result, the first main hypothesis accepted that states "There is a positive correlation between modern management accounting in decision making".

Table 3.15 the correlation between modern management accounting and decision making

		Decision making		
		Pearson Correlation	Sig. (2-tailed)	N
1	Modern management accounting technique	0.631	0.000	106

**. Correlation is significant at the 0.01 level (2-tailed).

Furthermore, in the table (3.16) explains the analysis result of the eight sub-hypotheses that derives from the First main Hypothesis in order to examine the correlation between the eight modern management accounting namely: "budget, Activity based costing , Target costing Customer profitability, Just in time, Total quality management, Balance scorecard, Financial statement analysis" and decision making.

The table (17) shows that the seven of model in modern management accounting were positively correlated with decision making but according to (Phillips, P.P., 2013, 172)'s scale in measuring relationship, five correlation (Budget, Activity based costing, Just in time, Total quality management) is low degree correlation, and three correlation (Target costing, Balance scorecard, Financial statement analysis) is moderate correlation is the Pearson correlation value was (0.328**), (0.339**), (0.400**), (0.269**), (0.373**), (0.476**), (0.462**) respectively at the significance level (0.01) and all the (Sig.) is less and equal than 0.01, Except customer profitability is no correlation and not significant as the value (Sig.) is great than (0.05)

Table 3.16 The Correlation Between the eight technique of modern management accounting and Decision making			
Modern management accounting	Decision making		
	Pearson Correlation	Sig. (2tailed)	N
Budget	0.328**	0.001	106
Activity based costing	0.339**	0.000	106
Target costing	0.400**	0.000	106
Customer profitability	0.149	0.127	106
Just in time	0.269**	0.005	106
Total quality management	0.373**	0.000	106
Balance scorecard	0.476**	0.000	106
Financial statement analysis	0.462**	0.000	106

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

In the table (3.17) explains the analysis result of the eight sub- hypotheses that derives from the First main Hypothesis in order to examine the correlation between the eight modern management accounting in decision making.

Table 3.17 The Results of the eight sub- hypotheses that derive from the First Main Hypothesis	
Hypotheses	Results
There is a positive correlation between the budget and decision making.	Accept
There is a positive correlation between the activity based costing and decision making.	Accept
There is a positive correlation between target costing systems and decision making.	Accept
There is a positive correlation between the customer profitability and decision making.	Reject

There is a positive correlation between the just in time and decision making.	Accept
There is a positive correlation between the total quality management and decision making.	Accept
There is a positive correlation between the balanced scorecards and decision making.	Accept
There is a positive correlation between the financial statement analysis and decision making.	Accept

3.4.2. Examine the Impact of modern management accounting in decision making

So as to examine the second main hypothesis along with the eight sub-hypotheses that derives from it that seek to find out the impact of modern management accounting in decision making , this study conducted a multiple linear regression analysis.

The second hypotheses were tested according to the decision rule that the Hypotheses is accepting if the value of F calculated is higher than the value of F tabulated, in addition to the level of significance is lower than 0.05.

In the table (3.18), that explain for us how modern management accounting impact on decision making. For that hypothesis, we depend on significance value, F calculated and R square. Significance value is 0.000 which is less than 0.05. So also the value of F calculated was 11.936 that it is higher than the value of F tabulated (2.0353) which show that the overall model was significant. The value of R square that reached 0.496 illustrates that (49.6%) of modern management accounting change impact on decision making. Therefore, the second main hypotheses is accepted which that states "There is statistically a significant impact of modern management accounting in decision-making".

Table 3.18 the Impact of modern management accounting on decision making

	Decision making		
	R squares	F calculate	sig.
Modern management accounting technique	0.496	11.936	0.000

In addition, in the table (3.19) explain the analysis result of the eight sub-hypotheses that derives from the second main hypothesis in order to test the impact of the eight modern management accounting namely recruitment and selection, "Budget, Activity based costing, Target costing, Customer profitability, Just in time, Total quality management, Balance scorecard, Financial statement analysis" in decision making

The table shows that the eight impacts modern management accounting in decision making as the values of R square values reached for the eight distances are (0.108), (0.115), (0.160), (0.022), (0.072), (0.113), (0.226), and (0.214). These result signalize that (10.8%), (11.5%), (16.0%), (2.2%), (7.2%), (11.3%), (22.6%), (21.4%) of decision making variation is achieved by dissertation Budget, Activity based costing, Target costing, Customer Profitability, Just in time, Total quality management, Balance scorecard, Financial statement analysis.

Statistically, based on the values of R square (Balance Scorecard), the highest impact on decision making. On the other hand (Budget, Activity based costing, Target costing, , Just in time, Total quality management, Financial statement analysis) the weakest impact in decision making as a result accepting the seven sub – hypotheses that derive from the second main hypotheses, because Customer Profitability don't have impact in decision making in order to (sig) greatest the 0.05.

Table 3.19 The Impact of the eight variable of modern management accounting on decision making

	decision making				
	R squares	F calculate	sig. F change	T calculate	sig. t calculate
Budget	0.108	12.528	0.001	3.539	0.001
Activity based costing	0.115	13.466	0.000	3.67	0.000
Target costing	0.160	19.864	0.000	4.457	0.000
Customer profitability	0.022	2.360	0.127	1.536	0.127
Just in time	0.072	8.092	0.005	2.845	0.005
Total quality management	0.113	13.292	0.000	3.646	0.000
Balance scorecard	0.226	30.398	0.000	5.513	0.000
Financial statement analysis	0.214	28.279	0.000	5.318	0.000

in the table (3.20) explain the analysis result of the eight sub- hypotheses that derives from the second main hypothesis in order to test the impact of the eight modern management accounting in decision making.

Table 3.20 The Results of the three sub- hypotheses that derive from the Second Main Hypothesis	
Hypotheses	Results
There is statistically a significant impact of budget on decision-making.	Accept
There is statistically a significant impact of activity based costing on decision-making	Accept
There is statistically a significant impact of target costing on decision-making.	Accept
There is statistically a significant impact of customer profitability on decision-making.	Reject
There is statistically a significant impact of just in time on decision-making.	Accept
There is statistically a significant impact of total quality management on decision-making.	Accept
There is statistically a significant impact of balanced scorecards on decision-making.	Accept
There is statistically a significant impact of financial statement analysis on decision-making.	Accept

3.5. FACTOR ANALYSIS

3.5.1. KMO and Bartlett's Test

In the table (3.21) show that KMO and Bartlett's it was noted that The value of KMO is equal to (0.573) which is close to the average, and the largest (80% or 90%) refers to the accuracy of the test and there is no problem in testing the second hypothesis of the question 6 and spherical test or so called "Bartlett test, Of the 50% indicated that the accuracy of the test.

This is confirmed by the value of p - calculated equal to zero, which is less than the level of significance 0.05, which means rejecting the null hypothesis and accept the alternative hypothesis that the independence of the questions between them and the inequality in the same differences.

Table 3.21 KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.573
Bartlett's Test of Sphericity	Approx. Chi-Square	1751.879
	Df	741
	Sig.	.000

3.5.2. Total Variance Explained

The explanatory amount is shown in the table below (3.22). By reviewing this table, 13 workers were extracted. The user standard is called the Eigen value, and the characteristic root of the factor is the total amount of the variance interpreted by the factor. , I.e. a request from the computer to consider a factor whose value is only 1 and above, but if the value of the root characteristic of the factor is less than 1, this means that this factor is not really different from a single independent variable of study variables and therefore cannot be considered a factor.

Note that there are 13 factors, the characteristic root value of the first factor of 4.916, and the second is 4.201 and so on ... and factor 13 has a distinctive root of 1.035. It is also noted that the first factor alone was able to explain 12.605% of the total variance, while the second factor explained 10.772% of the total variance and so and by combining the number of factors 13 together we can see that they interpreted 71.232% High value, and this means to benefit from the global analysis in the interpretation of most of the variance in the phenomenon with fewer variables and therefore fewer questions. The ideal situation for the researcher is that the variable has high saturation on one of the factors and low projections on the rest of the factors, called variables that achieve this situation Marker Variables, which is very important in determining the nature of the factor directly and clearly, The non-ideal or complex that a person does not wish is that the variable is linked by factors and approximations, which makes it difficult to locate it, as we observed during the analysis steps, and this value can change. As for the criterion used to estimate saturation, there is a criterion for the use of denunciations greater than 0.40, and another criterion is the Stevens (1996) standard, which is as follows:

Considerations greater than (0.40) are acceptable, and the grading greater than (0.40) is significant, while the variations greater than (0.50) are essential.

Table 3.22 Total Variance Explained									
		Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.916	12.605	12.605	4.916	12.605	12.605	4.061	10.412	10.412
2	4.201	10.772	23.376	4.201	10.772	23.376	2.970	7.615	18.027
3	2.768	7.099	30.475	2.768	7.099	30.475	2.197	5.634	23.661
4	2.391	6.131	36.606	2.391	6.131	36.606	2.167	5.556	29.217
5	2.004	5.139	41.475	2.004	5.139	41.475	2.122	5.441	34.658
6	1.893	4.853	46.598	1.893	4.853	46.598	2.107	5.401	40.060
7	1.689	4.332	50.929	1.689	4.332	50.929	1.983	5.085	45.145
8	1.634	4.191	55.120	1.634	4.191	55.120	1.844	4.727	49.872
9	1.429	3.664	58.784	1.429	3.664	58.784	1.775	4.552	54.424
10	1.312	3.364	62.148	1.312	3.364	62.148	1.748	4.482	58.906
11	1.283	3.291	65.439	1.283	3.291	65.439	1.745	4.475	63.381
12	1.224	3.139	68.578	1.224	3.139	68.578	1.674	4.293	67.674
13	1.035	2.654	71.232	1.035	2.654	71.232	1.388	3.558	71.232
14	.979	2.509	73.742						
15	.903	2.314	76.056						
16	.803	2.059	78.115						
17	.780	2.001	80.116						
18	.721	1.850	81.966						
19	.678	1.738	83.703						
20	.604	1.548	85.252						
21	.580	1.487	86.739						
22	.567	1.453	88.192						
23	.524	1.344	89.536						
24	.459	1.178	90.714						
25	.435	1.116	91.830						
26	.416	1.066	92.896						
27	.362	.928	93.824						
28	.339	.870	94.694						

29	.311	.798	95.492						
30	.273	.700	96.191						
31	.258	.660	96.852						
32	.235	.603	97.455						
33	.218	.558	98.013						
34	.210	.539	98.552						
35	.148	.378	98.931						
36	.134	.343	99.274						
37	.123	.314	99.588						
38	.92	.236	99.824						
39	.68	.176	100.000						

3.5.3. Rotated Component Matrix

In the table (3.23) show us this factor is very significant and significant in influencing the practice of running in Kurdistan region that table are explained all factor.

The first factor

This factor is very significant and significant in influencing the practice of running in Kurdistan as it explains in table (3.22) the total variance equal (12.605%), and saturation of this factor is a significant saturation of the following variables in sequence:

Question (3) "Estimated budget used in evaluation for all company directorates activities administrate of company to select appropriate alternative among the alternatives that are available in decision making." By (.750), Question (7) "The increasing additional indirect coasts intend company uses activity-based-costing system" by (.616), Question (14) "Determining the customer's current and future profitability contributes to predicting future customer profitability" by (.601), Question (15) "The company focuses on each customer when analyzing profitability." by (.864). Question (19) "Company has special unit for observation of product quality, to ensure applying Just-in-time products system" by (.864). Question (23) "The Total -quality-management system leads to increasing ability of competitive." by (.934). Question (29) "The company uses liquidity analysis ratios to determine the ability of company to meet its financial obligations" by (.648).

Question (30) "Budgeting by providing Numerical data works on improving quality of decision "by (.558).

The second factor

This factor comes in second place in terms of importance, it explains in table (3.22) the total variance equal (10.772%), and satisfies this factor by the significant saturation of the following variables in sequence:

Question (4) "The concept of activity-based-costing system concepts used at admin levels which are responsible in companies" By (.712), Question (27) "The company uses financial analysis tools such as vertical analysis, horizontal analysis and ratio analysis in controlling and making comparisons with competitors." by (.565), Question (28) "The value of the company is exalted through complete disclosure of its financial position by analyzing its financial statements." by (.680). Question (37) "The Total- quality -management contributes to raise efficiency in decision making process, through attention in quantity and quality information which are related to subject matter of decision." by (.685), Question (39) "The company uses both horizontal and vertical financial statement analysis to finical statements that assisting in decision making." by (.812).

The third factor

This factor comes in third place in terms of importance, it explains in table (3.22) the total variance equal (7.099%), and satisfies this factor by the significant saturation of the following variables in sequence:

Question (5) "The application of activity -based- costing system can calculate the cost of products precisely" By (-.431), Question (9)" The Target-costing initially works on reducing costs before production process through designing phase" by (.754), Question (36) "The aim in using application of Just-in-time products system aims to make (quantity stock = zero) which leads to the cost of maintaining the stock is zero" by (.687), Question (38) "Using of Balanced-score-cards system leads to improving produce decision "by (.511).

The fourth factor

This factor comes in fourth place in terms of importance, which it explains in table (3.22) the total variance equal (6.131%), and meets this factor through the great saturation of the following variables sequentially:

Question (5) "The application of activity -based- costing system can calculate the cost of products precisely." By (.418), Question (20) "The application of Total-quality-management leads to: A- Gradual development. B- Continuation, C- Effective control in company" by (.681), Question (21) "Senior management is focusing on customer satisfaction and they successful in understanding their expectations.." by (.704). Question (25) "The Balanced-score-cards evaluate performance indicators in level: financial, customer services, Regenerative processes, training and developing products in making strategic plan for the company." by (.523). Question (26) "Company administration cares the measuring indicators that related to product development through continuous training and education of employees." by (.515).

The Fifth factor

This factor comes in fifth place in terms of importance, which it explains in table (3.22) the total variance equal (4.853%), and meets this factor through the great saturation of the following variables sequentially:

Question (18) (The aim in using application of Just-in-time products system aims to make (quantity stock = zero) which leads to the cost of maintaining the stock is zero) by (.700). Question (22)"senior management is focusing on customer satisfaction and they successful in understanding their expectations." by (.511). Question (24)" The company administration cares the performance measurements that relates to product quality and customer satisfaction." by (.647). Question (33)" The Target-costing system in the company has the capability to provide appropriate information to take decision." by (.463).

The Sixth factor

This factor comes in sixth place in terms of importance, which it explains in table (3.22) the total variance equal (5.251%), and meets this factor through the great saturation of the following variables sequentially:

Question (6) "The application of activity -based- costing system helps in improving competitive feature in company." by (.931), Question (11) "Depending on target-coasting in the company's lead to improve quality of product. "By (.928).

The Seventh Factor This factor comes in seventh place in terms of importance, which explains in table (3.22) the total variance equal (4.332%), and meets this

Factor through the large saturation of the following variables sequentially:

Question (1) "The estimation budgeting considered as proof that uses modern scientific methods." by (.550), Question (2)" budgeting assist companies administration in determining goals for the subsequent period. "By (.832), Question (31) "The Target-costing system in the company has the capability to provide appropriate information to take decision "by (.499).

The Eighth factor

This factor comes in eighth place in terms of importance, which it explains in table (3.22) the total variance equal (4.191%), and meet this factor through the large saturation of the following variables sequentially:

Question (16) "The style of Just-in-time products is appropriate with the nature of Iraqi Kurdistan region companies." by (.750). Question (17) "The aim in using application of Just-in-time products system aims to make (quantity stock = zero) which leads to the cost of maintaining the stock is zero." by (.757).

The Ninth Factor

This factor comes in ninth place in terms of importance, which it explains in table (3.22) the total variance equal (3.664%), and meets this factor through the large saturation of the following variables sequentially:

Question (5) "The application of activity -based- costing system can calculate the cost of products precisely." by (.420). Question (8) "The concept of Target-costing system is a well-known concept in the company." by (.802).

The Tenth Factor

This factor comes in tenth place in terms of importance, which it explains in table (3.22) the total variance equal (3.364%), and meets this factor through the large saturation of the following variables sequentially:

Question (13) "To build an interactive relationship between customers and administrate efficiently, is considered as a necessary step in continuation of the company activates" by (.746). Question (35) (The customer-profitability-analysis system in the company is capable to provide information to take decisions which are related to customers) by (.798).

The Eleventh Factors

This factor is ranked Eleventh in terms of importance, which it explains in table (3.22) the total variance equal (3.291%), and meets this factor through the large saturation of the following variables sequentially:

Question (1) "The estimation budgeting considered as proof that uses modern scientific methods" by (.543). Question (32) "The company uses activity-based-costing as a tool for making pricing decisions." by (.794).

The twelve Factors

This factor is ranked twelfth in terms of importance, which it explains in table (3.22) the total variance equal (3.139%), and meets this factor through the large saturation of the following variables sequentially:

Question (10) "Using of target-costing method will lead to the provision desired products or services by the customer." by (.854). Question (22) "Reducing costs of services provided that doesn't affect the quality" by (.414).

The Thirteenth Factors

This factor is ranked 13th in terms of importance, which it explains in table (3.22) the total variance equal (2.654%), and meets this factor through the large saturation of the following variables sequentially:

Question (12) "The concept system of customer-profitability analysis is considered as well-known concepts and used in good manner in the company." by (.741). Question (34) "Company management depend on coast data in decision making during introducing a new product." by (.435).

Table 3.23 Rotated Component Matrix

	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1							.550				.543		
2							.836						
3	.750												
4		.712											
5			-.431	.416					.420				
6						.931							
7	.616												
8									.802				
9			.754										
10												.854	
11						.928							

12													.741
13										.746			
14	.601												
15	.480												
16								.750					
17								.757					
18					.700								
19	.864												
20				.681									
21				.704									
22					.511							.414	
23	.935												
24					.647								
25				.523									
26				.515									
27		.565											
28		.680											
29	.648												
30	.558												
31							.499						
32											.794		
33					.463								
34													-.435
35										.798			
36			.687										
37		.685											
38			.511										
39		.812											

CONCLUSION

This thesis purpose is to study examine the impact of using of modern management accounting in decision making. The results from this dissertation according to perspectives of academic were as following.

1. The level of modern management accounting was high according to the approval degree of their means. The ranks of modern management accounting in terms of ordinals importance was as the following. Firstly, Budget. Secondly, Financial statement analysis and Thirdly Customer profitability. Fourthly, Activity based costing. Fifth, Balance scorecard, sixth just in time, seventh target costing, finally total quality management.
2. The rustle of this study approved the first hypotheses along with the eight sub-hypotheses that derive from the first main hypotheses. The results indicate that statistically a first hypotheses and eight sub-hypotheses is accepted. That is mean that is results indicate that statistically a first hypotheses is a high positive correlation and eight Sub-hypothesis is between the low and medium degree of positive correlation, According to Pearson correlation between the main two variables. So second hypotheses in addition to the eight sub-hypotheses that derive from the second main hypotheses. The results indicate that statistically a second hypotheses and sub-hypotheses is accepted. Except Customer Profitability is rejected hypotheses because (sig) greatest the 0.05. That is mean statistically a weak impact of modern management accounting in decision making. According to Multiple Regression Analysis between the main two variables.
3. Statistically, based on the values of the R square (Balance Scorecard), the highest impact in decision-making. Compare with another concept (Budget, Activity based costing, Target costing, Just in time, Total quality management, Financial statement analysis) the weakest impact in decision making.
4. The study showed that the industrial company of Kurdistan region are using a budget system. Responses of the sample respondents to the budget was a high level, but the correlation of the relevant responded in this aspect is (0.328**). That's correlation is low degree to positive correlation. In addition, there was statistically a weak impact of modern management accounting Budget in decision making. So also changing by (10%) ratio in budget, will make changes in decision making process. The results also indicated is explained the budget

used in evaluation for all company directorates activities administrate of company to select appropriate alternative among the alternatives that are available in decision making. Its item has more impact in management accounting because it is in first factor and the value of factor equal (0.750) loading in it is more that the value of factor loading in other questions.

5. The study found that the industrial companies in Kurdistan region use the system of activity based costing. Responses of the sample respondents to the activity based costing was a high level, but the correlation of the relevant responded in this aspect is (0.339**), that's correlation is low degree to positive correlation. And, there was statistically a weak impact of Activity based costing in decision making. So also changing by (11%) ratio in Activity based costing, will make changes in decision making process. The results also indicated is explained the increasing additional indirect costs intend company uses activity-based-costing system. Its item has impact on modern management accounting in decision because it is in first factor and the value of factor loading in it is more that the value of factor loading in other questions.
6. The study found that industrial companies in the Kurdistan region use the target costing system to decision making but is used weakly. Hitch indicates that the respondents' responses are a high level and correlation this aspect is (0.400**), that's correlation is medium degree of positive correlation. And there was statistically a weak impact of target costing in decision making because Changing by (16%) ratio in target costing, will make changes in decision making process
7. The study found that the industrial companies in the Kurdistan region are working on the use of the customer profitability analysis system. Responses of the sample respondents to the customer profitability analysis was a high level, with a correlation to the responses to this aspect (0.149), that means there is weak positive correlation. Changing by (2%) ratio in customer profitability, will make changes in decision making process. The results also indicated Determining the customer's current and future profitability contributes to predicting future customer profitability and The Company focuses on each customer when analyzing profitability. Its item has impact on modern

management accounting in decision because it is in first factor and the value of factor loading in it is more that the value of factor loading in other questions.

8. The study found that the industrial companies in Kurdistan region use the system of Just in Time in weakly. Responses of the sample respondents to the Just in Time was a high level, but the correlation of the relevant responded in this aspect is (0.269**), that's correlation is low degree to positive correlation. And, there was statistically a weak impact of Just in Time in decision making. So also, changing by (7%) ratio in Just in Time, will make changes in decision making process. The results according to rotated component matrix for modern management accounting in decision making is a matrix to determine factor loadings for each factor including other variables. Moreover "Company has special unit for observation of product quality, to ensure applying Just-in-time products system". It is important item in management accounting because it is in first factor and the value of factor equal (0.864) loading in it is more that the value of factor loading in other questions.
9. The results of the study indicated that the companies of Kurdistan Region are working on using the balanced scorecard system. Responses of the sample respondents to the balanced scorecard was a high level. The correlation of the responses to this aspect was (0.476**), that's correlation is medium degree of positive correlation and there was statistically a weak impact of balance scorecard in decision making. So also, changing by (22%) ratio in balance scorecard, will make changes in decision making process.
10. The study found that the industrial companies in Kurdistan region applied the system of financial statement analysis. The mean of the responses of the sample respondents is to a high level. With a correlation to the responses equal (0.462 **), that's correlation is medium degree of positive correlation. furthermore, changing by (21%) ratio in financial statement, will make changes in decision making process. it was found that the presence of the company uses liquidity analysis ratios to determine the company's ability to meet its financial obligations which is one of the most important factors that must be provided to implement this system.
11. In general the Balance scorecard has a greater impact on decision-making than other concepts. Changing by (22 %) ratio in Balance scorecard, will make

changes in decision making process. and changing by (21%) ratio in financial statement, will make changes in decision making process. That is mean role modern management accounting in decision making is wreaked. The result of this study agree with (Yeshmin and Hossan, 2011), (Al-Melhem, 2003) and disagree (Hadid, 2015), (Sumkaew, 2012).this illustrate weakness factors of correlation and impact of management accounting on decision making, There isn't extreme experience in the companies for using management accounting techniques therefore rarely used. This necessitate continuous training and courses to elevate capability of employments. Bad economic and political situation has impact on decision making in company. Customers due to bad economic situation don't care to quality of the product. In this way the new situation has an impact on the company's decision.

RECOMMENDATION

Based on the results and outcomes of this dissertation, the researcher presented a number of recommendations:

1. It is necessary more work on different technique and style in modern managerial accounting.
2. Developing the awareness of managers of industrial companies in the Kurdistan Region of the importance of modern management accounting technique and their role in providing appropriate information for decision making.
3. Work on the development of modern management accounting systems to Appropriate the development of manufacturing systems Modern.
4. The need to train and qualification employees on the application of modern management accounting technique before starting to apply them.
5. Conducting other studies by other researchers on ways to enhance the use of modern managerial accounting technique in various economic sectors In order to face the rapid changes in the economic environment and the achievement of competitive advantage in light of the challenges of globalization.
6. Kurdistan region companies' managements still need to pay primary attention to modern management accounting techniques and do their best to correlate these techniques with decision-making in order to improve performance and increase the quality of decision-making.
7. work on apply modern management accounting technique the companies in the field of planning and controlling, that is usefulness and great benefit of the companies.

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APPENDIXES 1:QUESTIONNAIRE

Section 1: Information about respondent person

1	**Post title:**					
	Director of Administration		account**ant**		Auditor	
	Financial manager		Others……			

2	**Educational attainment:**					
	Diploma		Bachelors		Masters	
	Doctorate		Others**….**			

3	**Specialization:**					
	Accounting		Business administration		Economy	
	Banking and finance		Statistics		Others**……**	

4	**Job place**					
	Industry company		Services company		Banking	
	Government department		Others**………..**			

Section 2: The study related modern management accounting and decision making

	Question	Strongly agree	Agree	Somewhat agree	Dis- agree	Strongly disagree
1	The estimation budgeting considered as proof that uses modern scientific methods.					
2	Budgeting assist companies administration in determining goals for the subsequent period.					
3	Budget used in evaluation for all company directorates activities administrate of company to select appropriate alternative among the alternatives that are available in decision making.					
	activity based costing					
4	The concept of activity-based-costing system concepts used at admin levels which are responsible in companies.					
5	The application of activity -based- costing system can calculate the cost of products precisely.					
6	The application of activity -based- costing system helps in improving competitive feature in company.					
7	The increasing additional indirect coasts intend company uses activity-based-costing system.					
	target costing					
8	The concept of Target-costing system is a well-known concept in the company.					
9	The Target-costing initially works on reducing costs before production process through designing phase.					
10	Using of target-costing method will lead to the provision desired products or services by the customer.					
11	Depending on target-coasting in the company's lead to improve quality of product.					
	customer-profitability analysis					
12	The concept system of customer-profitability analysis is considered as well-known concepts and used in good manner in the company.					

13	To build an interactive relationship between customers and administrate efficiently, is considered as a necessary step in continuation of the company activates.					
14	Determining the customer's current and future profitability contributes to predicting future customer profitability					
15	The company focuses on each customer when analyzing profitability					
	Just-in-time					
16	The style of Just-in-time products is appropriate with the nature of Iraqi Kurdistan region companies.					
17	The aim in using application of Just-in-time products system aims to make (quantity stock = zero) which leads to the cost of maintaining the stock is zero.					
18	The application of Just-in-time products system in the company helps satisfaction to delivery customers order requirements according to quantity and quality as agreed upon it previously.					
19	Company has special unit for observation of product quality, to ensure applying Just-in-time products system.					
	Total-quality-management					
20	The application of Total-quality-management leads to: A- Gradual development. B- Continuation, C- Effective control in company					
21	Senior management is focusing on customer satisfaction and they successful in understanding their expectations.					
22	Reducing costs of services provided that doesn't affect the quality.					
23	The Total -quality-management system leads to increasing ability of competitive.					
	Balanced-score-cards					
24	The company administration cares the performance measurements that relates to product quality and customer satisfaction.					
25	The Balanced-score-cards evaluate performance indicators in level: financial, customer services, Regenerative processes, training and developing products in making strategic plan for the company.					
26	Company administration cares the measuring indicators that related to product development					

	through continuous training and education of employees.					
	financial analysis					
27	The company uses financial analysis tools such as vertical analysis, horizontal analysis and ratio analysis in controlling and making comparisons with competitors.					
28	The value of the company is exalted through complete disclosure of its financial position by analyzing its financial statements					
29	The company uses liquidity analysis ratios to determine the ability of company to meet its financial obligations.					
	decision making					
30	Budgeting by providing Numerical data works on improving quality of decision					
31	The companies using budgeting in planning					
32	The company uses activity-based-costing as a tool for making pricing decisions.					
33	The Target-costing system in the company has the capability to provide appropriate information to take decision.					
34	Company management depend on coast data in decision making during introducing a new product.					
35	The customer-profitability-analysis system in the company is capable to provide information to take decisions which are related to customers.					
36	Just-in-time products system will affect the decision making of the company, in order to increase production capability and increasing quality of products.					
37	The Total- quality -management contributes to raise efficiency in decision making process, through attention in quantity and quality information which are related to subject matter of decision.					
38	Using of Balanced-score-cards system leads to improving produce decision.					
39	The company uses both horizontal and vertical financial statement analysis to finical statements that assisting in decision making.					

APPENDIXES 2: CURRICULUM VITAE

Personal Information			
Name & Surname	Jawhar Ahmed SAEED		
Date of Birth	19.07.1984		
Nationality	Iraqi		
Contact			
Place & Address	Erbil – Iraqi Kurdistan		
E-mail	Jawhar.saeed@soran.edu.iq		
TELEFON	+9647504690373		
Education Level			
Degree	**Field**	**University**	**year**
Undergraduate	ACCOUNTING	Salahaddin University- Erbil	2009
Postgraduate			
Work Experience:			
Work place	Position	Year	
SORAN UNIVERSITY	EMPLOYEE	2010	