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Target Costing and Performance

Revenue Recognition by Business

Discovering Thoughts, Inventing Future

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The Leading Financial Changed of Revenue Recognition by Business Enterprises under FASB vs. IASB

By Prof. Edel Lemus

Carlos Albizu University, United States

Abstract- The purpose of this research study is to provide a relevant position about the emergence and adoption process of the revenue recognition project under Financial Accounting Standard Board (FASB) and International Accounting Standard Board (IASB) and its crucial financial reporting performance by business enterprises. In 2014 the Financial Accounting Standard Board (FASB) developed a conceptual framework in relation to the joint revenue recognition project. As a result, the Financial Accounting Standard Board (FASB) in an early announcement this year stated that the revenue recognition project will take place as early as 2015 as noted by Lemus (2014). However, the revenue recognition project will change its reporting perspective from historical cost value to fair value measurement. For example, the International Accounting Standard Board (IASB) noted that more than 95% of Small and Medium-sized Entities (SMEs) are allowed to use EFRS. Therefore, it is expected (as cited in Kieso, Weygandt, & Warfield, 2013) that the optional adoption process of International Financial Reporting Standards (IFRS) in the United States will take place as early as 2017.

Keywords: *financial reporting theory, U.S. securities and exchange commission (SEC), financial accounting standard board (FASB), international accounting standard board (IASB), united states gaap, international financial reporting standard (IFRS), efrs, ifric, revenue recognition, business enterprises, small and medium-sized entities (SMEs).*

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The Leading Financial Changed of Revenue Recognition by Business Enterprises under FASB vs. IASB

Prof. Edel Lemus

Abstract - The purpose of this research study is to provide a relevant position about the emergence and adoption process of the revenue recognition project under Financial Accounting Standard Board (FASB) and International Accounting Standard Board (IASB) and its crucial financial reporting performance by business enterprises. In 2014 the Financial Accounting Standard Board (FASB) developed a conceptual framework in relation to the joint revenue recognition project. As a result, the Financial Accounting Standard Board (FASB) in an early announcement this year stated that the revenue recognition project will take place as early as 2015 as noted by Lemus (2014). However, the revenue recognition project will change its reporting perspective from historical cost value to fair value measurement. For example, the International Accounting Standard Board (IASB) noted that more than 95% of Small and Medium-sized Entities (SMEs) are allowed to use EFRS. Therefore, it is expected (as cited in Kieso, Weygandt, & Warfield, 2013) that the optional adoption process of International Financial Reporting Standards (IFRS) in the United States will take place as early as 2017.

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I. INTRODUCTION

This research paper introduces the most relevant standards that exist under revenue recognition principles and these are: (1). IAS 1, (2). IAS 18, and (3). IAS 20. Additionally, the joint revenue recognition project will increase the financial transparency and comparability among industries in the United States capital market. It was expected that by 2014 the Financial Accounting Standard Board (FASB) would have to develop a conceptual framework in relation to the joint revenue recognition project. Therefore, the main objective of the joint revenue recognition project is to consolidate the financial reporting inconsistencies that exist between the

Financial Accounting Standard Board (FASB) and the International Accounting Standard Board (IASB).

The FASB codification in terms of treating revenue recognition consists of 100 pieces. The most relevant standards that exist under revenue recognition are IAS 18 and IAS 11. As a result, the main conceptual aspect adequately presented in the literature review demonstrates how to record revenue under United States GAAP and IFRS. In 2009 the International Accounting Standard Board (IASB) decided to clarify current existing issues between IFRS and the agency. Executives and business enterprises should be aware of the new accounting changes in the accounting and finance sector during the next five years as the United States continues the convergence effort toward adopting optional IFRS. Also, it is well noted that IFRS will help increase the cash flow of a company as well as improve the quality financial reporting position of business enterprises. Therefore, the first groups adopting IFRS in the United States are SMEs.

II. LITERATURE REVIEW

In 2010 the Financial Accounting Standard Board (FASB) and the International Accounting Standard Board (IASB) began a joint project effort towards revenue recognition. In addition, the joint project revenue recognition addresses four crucial principles in relation to customer contract. Moreover, the joint project effort of revenue recognition is considered to pass from United States GAAP to IFRS. Furthermore, the four crucial principles of the project promulgate the following steps:

Step No. 1: Allocate the differences and obligation performance in a contract.

Step No. 2: Illustrate in the contract the importance of transaction price.

Step No. 3: Identify the performance transaction price in the contract.

Step No. 4: Comprehend and understand the rationale of the stipulated information in the contract.

As a result, this researcher noticed significant differences in the joint revenue recognition project. For instance: (1). Dealing with percentage contract

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completion, (2). The impact of sales and goods services changes in the market, (3). The importance of revenue recognition, and (4). The specific time and place where to recognize the revenues. Therefore, the most relevant standards that exist under revenue recognition principles are: (1). IAS 1, (2). IAS 18, and (3). IAS 20 (Dickins & Cooper, 2010).

The main importance of the joint revenue recognition project is to bring financial clarity to the financial market. In addition, the joint revenue recognition project is a simple language that can be used among accounting firms. Moreover, the main financial objective of the FASB and the IASB is to understand the similarities and differences that exist in the joint revenue recognition project. The number of existing industries under United States GAAP is 200 industries. Also, the Financial Accounting Standard Board (FASB) noted that the recording position of revenue recognition under International Financial Reporting Standards (IFRS) is quite complex to measure. For example, throughout the revenue recognition process between the FASB and the IASB five principles must be met:

1. Remove inconsistencies and weaknesses in existing revenue requirements.
2. Provide a more robust framework for addressing revenue issues.
3. Improve comparability of revenue recognition practices across entities, industries, jurisdictions, and capital markets.
4. Provide more useful information to users of financial statements through improved disclosure requirements.
5. Simplify the preparation of financial statements by reducing the number of requirements to which an entity must refer (FASB, 2014, "Project Objective and Summary of the Proposed Model").

Therefore, the joint revenue recognition project will increase financial transparency and comparability among industries in the United States market (FASB, 2014).

In 2011 the Financial Accounting Standard Board (FASB) and the International Accounting Standard Board (IASB) issued a new revised proposal plan to clarify the main objectives of the financial revenue recognition project. In addition, over the last decade the two standard setters have proposed extensive guidance in relation to the joint revenue recognition project. Moreover, the two standard setters are in the process of understanding the financial position of recording gains and losses in the real estate industry. Furthermore, revenue recognition has been a major issue in the United States as well as internationally. Therefore, by 2014 it is expected that the Financial Accounting Standard Board (FASB) would

have to develop a conceptual framework in relation to the joint revenue recognition project (Weiss, 2012).

The conceptual framework of the joint revenue recognition project between the Financial Accounting Standard Board (FASB) and the International Accounting Standard Board (IASB) is important to financial readers. In addition, researchers claim that reporting revenue under United States GAAP is quite distinctive from reporting revenue under IFRS. Moreover, both boards have accomplished a milestone in the joint revenue recognition project. Therefore, the main objective of the joint revenue recognition project is to consolidate financial reporting inconsistencies between the Financial Accounting Standard Board (FASB) and the International Accounting Standard Board (IASB) (Bohusova, & Nerudova, 2011).

III. UNITED STATES GAAP: REVENUE RECOGNITION

The promulgated Statement No. 6 by the Financial Accounting Standard Board (FASB) provides a definition under generally accepted accounting principles (GAAP) of how to treat revenues. In addition, the definition under Statement No. 6 indicates that the inflows of producing goods, creating operational services, and rendering services in a triangular position as recording revenue is applied. Moreover, the revenue recognition under United States GAAP must be met by two criteria. Furthermore, FASB Statement No. 5 properly highlights the criteria of revenue recognition. For example, the FASB states that in order to realize revenue the revenue must be earned. However, the statement SAB 104 states how public traded companies can recognize their income. Therefore, the FASB codification in terms of treating revenue recognition consist of 100 pieces (Bohusova, & Nerudova, 2011).

IV. IFRS: REVENUE RECOGNITION

The conceptual framework of the IAS and the IFRS provide a definition for income and expenses when dealing with revenue recognition. In addition, the researcher promulgates two standards that presently exist under revenue recognition and these are: (i). IAS 18 and (ii). IAS11. Moreover, the joint revenue recognition project provides economic benefit to enterprises. For instance, IAS 18 provides different classification criteria for revenue transactions within the company by rendering services, by illustrating adequate sales of goods and products, the enterprise can yield interest, dividends, and royalties. For instance, the IAS 11 expresses the financial circumstances of construction contracts under revenue recognition. Nevertheless, the two approaches of revenue recognition that exist under IFRS are: (1). A price in a construction contract and (2). The original transaction of

measurement entity performance. Therefore, the most relevant standards that exist under revenue recognition are IAS 18 and IAS 11 (Bohusova, & Nerudova, 2011).

V. REVENUE RECOGNITION DIFFERENCES UNDER UNITED STATES GAAP AND IFRS

The major similarities and differences that exist between United States GAAP and IFRS is the treatment of revenue recognition. In addition, there are considerable populations that follow revenue recognition under United States GAAP. Moreover, fewer industries appear to be reporting revenue recognition under IFRS. Furthermore, in order to properly measure revenue recognition under IFRS (as cited in Spiceland, Sepe, & Nelson, 2011) two transaction events must occur and these are: (1). Analyze and judge the earnings process and (2). Analyze the collective asset that must be received. As a result, as Spiceland, Sepe, and Nelson (2011) research work indicates, revenue recognition under United States GAAP must meet four aspects and these are: (1). The association cost of revenue that must be reliable, (2). The economic aspect of revenue recognition, (3). Treating sales of goods properly to avoid financial risks and (4). The reliability and measurement of sales services. Therefore, the main conceptual aspect adequately presented in the literature review demonstrates how to record revenues under United States GAAP and IFRS practical guidance (Lin, & Fink, 2013).

VI. IASB CURRENT PROJECT: FINANCIAL STATEMENTS AND EXPECTED OUTCOMES

The standards setters of both boards, the FASB and the IASB, have decided to issue new proposals in terms of how to treat revenue recognition in financial statements because the appropriate treatment of revenue recognition represents a crucial and significant aspect by meeting the following expectations:

1. Providing a more robust framework for addressing revenue recognition issues
2. Removing inconsistencies from existing requirements
3. Improving comparability across companies, industries, and capital markets
4. Providing more useful information to users of financial statements through improved disclosure requirements
5. Simplifying the preparation of financial statements by streamlining the volume of accounting guidance (Professional Services Close Up, 2011).

In 2007, the IFRIC indicated that IAS 18 revenue will not properly reflect the current existing cost between the agency cost and IFRS standards. In addition, the IFRIC conducted specific interpretation on EITF 99-19 to address the treatment of revenue recognition. As a

result, the IFRIC considered new horizon accounting guidance by reshaping the standard setting of the same. Therefore, in 2009, the International Accounting Standard Board (IASB) determined to clarify current existing issues between IFRS and the agency (Kenny, & Larson, 2009).

Another major issue is the treatment for accounting lease in the IFRS work convergence plan. In addition, the researchers prescribed in the research study that IFRS presents a lack of clarity when dealing with accounting lease under revenue recognition. Moreover, the accounting treatment lease criterion under United States GAAP is estimated by two standards and these are: (1). Predict and estimate the life of the lease stipulated in the contract and (2). Calculate the present value (PV) of the lease by estimating the fair value of the asset. For example, the lease capitalization under United States GAAP requires up to 75% of completion or more when the life of the asset has been estimated. On the other hand, under IFRS the IAS No. 17 is less specific when treating capitalization requirements for lease accounting because the life of the asset is expected to be used at full capacity. As a result, as ASC 840 indicates, if a leased asset exceeds 90% it requires capitalization at present value. Therefore, researchers throughout the research study provide less specific accounting language by encouraging economic demand and at the same time discouraging the financial position in treating accounting lease transactions at present value (Collins, Pasewark, & Riley, 2012).

VII. FINAL OUTCOME OF REVENUE RECOGNITION

The FASB provided an exposure draft update in relation to Topic 605. In addition, the main objective of the exposure draft revision by the FASB is to replace current existing GAAP guidance in terms of treating revenue recognition. Moreover, the two standard setters with the joint revenue recognition project brought clarity and transparency to the standards of revenue recognition. In 2002, the promulgated exposure draft by the FASB was finalized and concluded by providing three important roles within the market: (1). Customer's contract, (2). Insurance contract, and (3). Lease contract. Therefore, in 2012 the FASB predicated five important provisions and these are: 1. Contract with a customer, 2. The specification performance of the contract obligation, 3. Determination of the transaction price, 4. The transaction performance in the contract, and 5. Recognition of the performed revenue (FASB, 2014).

The FASB, in an announcement early this year, stated that the revenue recognition project will take place as early as 2015. In addition, publicly traded companies that are in the process of adopting optional

IFRS have to follow IFRS principle governance guidance. Moreover, the joint revenue recognition project between the FASB and the IASB will indicate how revenue should be recorded under United States GAAP versus IFRS. As a result, professional accountants have to learn the new accounting treatment

process of revenue recognition. For example, under the new joint project recognition are tax implications that companies must face throughout the adoption process. Therefore, the revenue recognition project will change its reporting perspective from historical cost value to fair value measurement (McKee, & McKee, 2013).

Revenue Recognition Bases

Specific Transactions	Accounting Guidance
Point of sale	See Illustration 18–12 (page 1080).
Long-term contracts (construction)	
(a) Percentage-of-completion method	Long-term construction of property; dependable estimates of extent of progress and cost to complete; reasonable assurance of collectibility of contract price; expectation that both contractor and buyer can meet obligations; and absence of inherent hazards that make estimates doubtful.
(b) Completed-contract method	Use on short-term contracts and whenever percentage-of-completion cannot be used on long-term contracts. Existence of inherent hazards in the contract beyond the normal, recurring business risks; conditions for using the percentage-of-completion method are absent.
Completion-of-production basis	Immediate marketability at quoted prices; unit interchangeability; and no significant distribution costs.
Installment-sales method and cost-recovery method	Absence of reasonable basis for estimating degree of collectibility and costs of collection. Collectibility of the receivable is so uncertain that gross profit (or income) is not recognized until cash is actually received.
Deposit method	Cash received before the sales transaction is completed. No recognition of revenue and income because there is not sufficient transfer of the risks and rewards of ownership.

(Kieso, Weygandt, & Warfield, 2013, p. 1079).

The above table illustrates the importance of revenue recognition bases and the applicable principles guidance activities from the departure of sales basis (Kieso, Weygandt, & Warfield, 2013).

VIII. IFRS AND UNITED STATES GAAP ON THE FINANCIAL PERFORMANCE REPORTING BY BUSINESS ENTERPRISES

In the near future it is predicted that the financial reporting system in the United States will have a drastic change. In addition, the SEC is in the process of joining more than 100 countries that have already adopted IFRS. Moreover, the researcher attests in the literature review that multinational corporations (MNC) have been using dual reporting language for the last two decades. Furthermore, the FASB is presently working with the IASB to make the convergence project as one universal accounting language. For example, the two standard setters have issued two memorandum of understanding

in dealing with the complexity level in treating revenue recognition and business combination from the financial reporting aspect. As a result, the accounting profession will also have a drastic change. Therefore, executives and business enterprises should be aware of the new accounting changes in the accounting and finance sector during the next five years as the United States continues the convergence effort toward the optional IFRS (James, 2009).

The three boards known as the SEC, the FASB, and the IASB have determined to devote one section in the convergence process to business enterprises. The stockholders equity account cannot be inconclusive under the two standard settings. Therefore, Mr. Francesco Bellandi indicated that the treatment for stockholders equity can be reported as relevant standards (Walters, 2011).

The convergence project from United States GAAP to IFRS raises a lot of questions about the unknown financial reporting expectations under IFRS. In

addition, accountants are concerned about equity based compensation. Moreover, the reporting tax position between United States GAAP and IFRS is quite different. Furthermore, some accountants argued that the tax equity position should be reported under fair value and other accountants claimed that in order for the numbers to have a feasible reporting position they should be reported under the historical cost. As a result, accounting firms are presently comparing the pro-forma income statement and pro-forma balance sheet to understand the reporting results of the tax equity base position. For example, researchers in previous accounting studies have determined that the tax yields under IFRS are less than the tax yields under United States GAAP. Therefore, the researchers concluded that adopting IFRS will help increase the cash flow of the company as well as improve the quality financial reporting position of the business enterprises (Mc Anally, Mc Guirre, & Weaver, 2010).

A business enterprise should prepare the financial statement in accordance with United States GAAP, the "Balance Sheet" by realizing the "statement of financial position", or "statement of financial condition" (Bellandi, 2007, p.32). In addition, the SEC acting as a primary regulator, does not use the term balance sheet but instead prefers to use "statement of financial condition" when treating and dealing with employee stock purchases or savings under section 210.6A-02(d) and 210.6A-02(a). Moreover, the form 20 is primarily used in practice for both the balance sheet and statement of financial position. Furthermore, the term balance sheet, is "applicable under business entities IAS1 as revised on December 2005, The Presentation of Financial Statements (paragraph number 5) (Part 1, Item 5, E2(c), Part 1; General Instructions to Items 11(a) and 11(b), 3C (ii)" (Bellandi, 2007, p.32).

In the European Union, business enterprises in the financial market use the term Balance Sheet for recording purposes. As illustrated by the researcher, in September 2007 the IAS1 was revised and it was moved to "statement of financial position" by focusing primarily on auditing terminology. As a result, the joint project of the FASB and the IASB is moving toward a solid position on each entity's industry. For instance, the discussion of liquidity or mixed bases is illustrated under IAS1, paragraph 60. Nevertheless, the convergence project of United States GAAP and IFRS (as cited in Lemus, 2014) brings transparency, relevance, and reliability and these are: (1) the liquidity of the financial institution should be displayed in the financial statements, because it is simply recorded in the industry sector and there is a liability test that is applicable under (IAS1, paragraph 63); (2) A business that is running multiple lines of business uses the mixed basis under (IAS1 paragraph 64); (3) When the residual income is not applied correctly the originality of the operating cycle cannot be

identifiable. Another example, the mixed guidance accounting method under United States GAAP does not exist; therefore, the convergence project from United States GAAP to IFRS needs to adopt the optional emerging position of liquidity-based position, or a mix-basis in the balance sheet and also should be noted on section of IAS1, paragraph 61 (Bellandi, 2007).

The United Kingdom and the United States investors acting as corporate issuers are familiar with the reporting position of a principles based standard. In addition, both Multinational Corporations (MNCs) and large enterprise companies have implemented a dual reporting system as a parallel reporting position in the market. Moreover, the embracement of the Extensible Business Reporting Language (XBRL) and IFRS has become a main priority to regulators in the United States market. However, as research studies indicate, the adoption of IFRS is arriving sooner than expected to the United States capital market. For instance, regulators have to seek global financial sustainability with IFRS. Therefore, it is likely (as cited in Lemus, 2014) that the full adoption process of IFRS in the United States will take place as early as 2016 (Boerner, 2011).

The following five main standards of IFRS simplify the reporting process for SMEs and they are:

1. Some topics in IFRS are omitted because they are not relevant to typical SMEs— including earnings per share, interim financial reporting, and segment reporting.
2. Some options in full IFRS are not allowed, because a more simplified method is available to SMEs—for example, there is no option to revalue property, plant, and equipment.
3. Many of the recognition and measurement principles in full IFRS are simplified—for example, the amortization of goodwill and the expensing of all borrowing and research and development costs.
4. Full IFRS requires more than 3,000 disclosures; IFRS for SMEs requires less than 300.
5. Simplified redrafting provides easier understandability and translation" (Sanders, Lindberg, & Seifert, 2013, p.32).

The IASB noted that more than 95% of SMEs are allowed to use EFRS. In addition, to some extent private United States companies are implementing EFRS, because it serves as a simple approach to understand the full adoption process from United States GAAP to IFRS. Moreover, in terms of cost position in the market EFRS is less costly to implement than IFRS as primary guidance and is more relevant in terms of financial accounting reporting standards. Furthermore, private companies are willing to expand their business horizon and continue obtaining global financing comparability and efficiency by improving the reliability of the financial statement measurement. Therefore, the first group adopting IFRS in the United States is Small

and Medium-sized Entities (SMEs) (Sanders, Lindberg, & Seifert, 2013).

IX. CONCLUSION

In conclusion, the joint revenue recognition project will increase financial transparency and comparability among industries in the United States market. In addition, the Financial Accounting Standard Board (FASB) would develop a conceptual accounting framework in relation to the joint revenue recognition project. Moreover, the Financial Accounting Standard Board (FASB) has created 100 pieces of codification when treating revenue recognition. Furthermore, the most relevant standards that exist under revenue recognition are IAS 18 and IAS 11. As a result, the revenue recognition project will change its reporting perspective from historical cost value to fair value measurement. For instance, executives and business enterprises should be aware of the new accounting changes in the accounting and finance sector during the next five years as the United States continues the convergence effort toward the optional IFRS. Therefore, the main objective of the joint revenue recognition project is to consolidate the financial reporting inconsistencies that exist between the FASB and the IASB by utilizing at best the six subject areas as a reference point prescribed in the literature review.

Recommendation for Future Studies

The author of this article suggests that the following aspects should be considered for future studies when studying the emergency revenue recognition process for business enterprises under FASB vs. IASB:

1. The U.S. Securities and Exchange Commission (SEC) needs to improve the revenue recognition practices under the Sarbanes-Oxley Act of 2002 (SOX), because revenue recognition in the United States continues to be a major issue.
2. The U.S. Securities and Exchange Commission (SEC) needs to provide more transparent accounting guidance when United States Multinational Corporations (MNCs) operating overseas are dealing with revenue recognition principle practices.
3. The SEC and FASB need to become familiar with the optional adoption of IFRS in the United States market.
4. Business enterprises from other countries doing business in the United States need to understand the revenue recognition practices under United States GAAP vs. IFRS.

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Developing the Conceptual Framework of Sustainability Accounting Reporting: Field Study in Saudi Commercial Banking Sector

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Abstract- Research has shown lack of accounting disclosure process through restricted to the published financial statements, and that it requires disclosure of the role of environmental and social, beside the economic role to judge the efficiency of the economic unit management in accordance with of the three dimensions. Sustainability Accounting Standards Board (SASB) cited SASB need to issue a set of criteria according to each industry separately. Where the SASB issued until April 2014 three groups of criteria linked to three industries, respectively, are: health care, commercial banks, and communications and technology. And waits for the completion of those standards in accordance with the specific dates to cover eight other industries.

Keywords: *the conceptual framework of the sustainability accounting reporting- the three dimensions of sustainability- sasb- the analytical framework of sustainability- objectives and principles of sustainability- stakeholder awareness- motives of sustainability- problems and difficulties for the preparation of sustainability reports.*

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Abstract- Research has shown lack of accounting disclosure process through restricted to the published financial statements, and that it requires disclosure of the role of environmental and social, beside the economic role to judge the efficiency of the economic unit management in accordance with of the three dimensions. Sustainability Accounting Standards Board (SASB) cited SASB need to issue a set of criteria according to each industry separately. Where the SASB issued until April 2014 three groups of criteria linked to three industries, respectively, are: health care, commercial banks, and communications and technology. And waits for the completion of those standards in accordance with the specific dates to cover eight other industries.

The research Reviewed development of the concepts of sustainability, the stages of the evolution of the concept, the main three dimensions of the concept and the analytical framework and covered the objectives, principles, measurement and recording tools, sustainability reporting, benefits realized, the development of management accounting related to sustainability, the factors affecting the process of sustainability reporting. Research has shown the possibility of test three hypotheses are related to the scope of the field study. The first questionnaire included a group of questions and distributed on a statistical sample of employees of commercial banks. The group of questions that cover the motives for the issuance of sustainability accounting reports. The second group of questions cover the difficulties and problems associated with sustainability accounting reporting. The second questionnaire was distributed with stakeholders and interested in the reports of sustainability accounting to inquire about the extent of their awareness of the sustainability accounting reports. The results of field study has undergone to appropriate statistical tests, The research reached to significant findings and recommendations for the development of the conceptual framework for the process of preparing sustainability accounting reports.

Keywords: the conceptual framework of the sustainability accounting reporting- the three dimensions of sustainability- sasb- the analytical framework of sustainability- objectives and principles of sustainability- stakeholder awareness- motives of sustainability- problems and difficulties for the preparation of sustainability reports.

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I. INTRODUCTION AND RESEARCH PROBLEM

In 1998, about 250 major companies issued sustainability reports. In 2001 increased the level of disclosure in England, Japan and Germany. In 2002, principles were appeared for disclosure of sustainability reports, then these principles have been revised and be issued to become a new framework in 2006, and in the same year issued more than 1,000 global company sustainability reports, using these criteria and guidelines (Ballou et al., 2006)(37).

The research problem includes some important aspects related sustainability accounting as: the accounting concept of sustainable environment, the nature of corporate sustainability reports, the needs of stockholders about sustainability reports, information content of sustainability reports, the disclosure movies of corporate sustainability reports, the role of accountants in corporate sustainability, the professional and accounting standards of corporate sustainability reporting and the necessary steps to realize corporate sustainability. Also, the problem of research extend to include the complexity of generalization the previous aspects related sustainability accounting, where the contents, disclosures, reports, adjustments and others are different depending on the kind of industry.

Field study in this research will deal banking sector, where the expected results of questionnaire distributed on the parties of stockholders in banking sector will cover the determinants and multi – dimensions of sustainability accounting reports.

II. THE RESEARCH OBJECTIVES

The main objective is to design a conceptual framework for the accounting approach of corporate sustainability reporting through the results of the previous aspects. Another objective in this research is to illustrate how to apply the determinants of sustainability reporting for one of the banks. Also, the research aims to enrich the accounting library with material on the subject of sustainability accounting reporting, which the writing in it characterized by scarcity.

III. THE IMPORTANCE OF RESEARCH

The importance of research is shown through: -

1. The scarcity of research in the field of sustainable development in general and corporate sustainability reporting in particular.
2. Directing the attention of researchers and interested about studying the role of accounting in achieving corporate sustainability and provide sustainability reports.
3. The research will provide a conceptual framework for sustainability accounting reporting, it will enrich the accounting knowledge with sustainability principles, procedures, reporting, benefits, measures and indicators.
4. Taking into account the economic, social and political conditions, besides to the economic results.
5. The need to achieve a competitive advantage requires providing information, especially in area of society, environment and economic.
6. The financial results are not consider a single standard for evaluating the performance of the unit. The managerial accountant must enter other dimensions in the evaluation process.

IV. RESEARCH METHODOLOGY

The Researcher will use the inductive method in identifying the determinants of sustainability accounting in general and reporting process in particular. Where, the researcher will induct the previous studies to conclude the elements of the conceptual framework for sustainability accounting reporting. The researcher will use deductive method to identify the form, contents, movies, objectives and principles of corporate sustainability accounting reporting through using a relevant designed questionnaire. The sample will be drawn to resent all parties of stockholders. The research will apply the analytical approach and the statistic methods on the results of questionnaire.

V. THE LIMITATIONS OF RESEARCH

The research identifies the elements of conceptual framework for the process of preparing sustainability accounting reporting, whether include concepts, principles, movies, measurement methods, benefits realized, the qualitative characteristics of sustainability accounting information and parties of stockholders which need output of these reports.

But the research excludes operations analysis of sustainability reporting by the various parties. Also, the research excludes measurement operation of reports effectiveness. Because the process of generalization is rejected in sustainability accounting reporting, it will shorten the practical side to prepare sustainability accounting reports in banking sector.

VI. THE RESDUAL CONTENTS OF RESEARCH

The last sections were the research problem (1), research objectives (2), the importance of research (3), Research Methodology applied (4), study limitations (5). The seven section (7) will covers literature review, while the eight section includes the research hypothesizes, the nine sector covers field study, the ten sector presents results analysis, the eleven sector includes conclusions and recommendations, the twelve section covers the references used, finally the section thirteen presents the appendixes.

VII. THE LITERATURE REVIEW

In pursuit of the objectives of research and overcome the research problem, the research will classifies the literatures (researches, studies and efforts) to 7 sets related with sustainability accounting reporting as: the concept, stages of the evolution, the three key dimensions, analytical framework, developing mangerial accounting, some organizations and initiatives assist companies, and the factors effected on sustainability reports.

a) *The Concept of Sustainability*

Depending on (Tilt, C. A., 2007) there are different terms for sustainability: social accounting, social and environmental accounting, corporate social reporting, corporate social responsibility reporting, or non-financial reporting. Sustainability was originated about 20 years ago and is considered a subcategory of financial accounting that focus on the disclosure of non-financial information about a firm's performance to external parties such as capital holders, mainly to stakeholders, creditors and other authorities. These represent the activities that have a direct impact on society, environment and economic performance of an organization.

Sustainability accounting in managerial accounting contrast with financial accounting, In managerial accounting is used for internal decision making and the creation of new policies that will have an effect on the organization's performance at economic, ecological and social. Sustainability Accounting is a tool used by organizations to become more sustainable. The most known widely used measurements are the Corporate Sustainability Reporting and the triple bottom line accounting. These recognize the role of financial information and shows how traditional accounting is extended by improving transparency and accountability by reporting on the Triple-P's (People, Planet, Profit). Sustainability Accounting considers as a tool used by organizations to become more sustainable. The most known widely used measurements are the Corporate Sustainability Reporting and the triple bottom line accounting. These recognize the role of financial

information and shows how traditional accounting is extended by improving transparency and accountability by reporting on the Triple-P's.

The study (ICAEW, 2013) mentioned that the most frequently cited definition is provided by the Brundtland Report on environmental responsibility: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.". The study (Albu, et al., 2011), stated that on the social level, the Sustainability means that the community must not use resources more, and the competent of system must be integrated in the society, while on the level of corporate the sustainability includes the effect of corporate activity on the external environment and on the future (Aras and Crowther, 2009). Also, Sustainability extends to the level of activity, which includes making decisions in the present and do not restrict the choices in the future (Adams and Whelan, 2009).

While the term '*Corporate sustainability*' has been used for over decade (Atkinson, 2000), but there is still a wide divergence of opinions over what changes this requires of business. The previous definition means that the corporation must pursue only traditional profit maximization models. By contrast, (Schaltegger and Burritt, 2005) (Hopwood et al., 2010) define corporate sustainability as a process which aims to integrate the systematic management of the environmental and social aspects of business together with the economic aspects, both to achieve sustainable business development of the wider economy and society. Proponents of corporate sustainability argue not merely that companies have an ethical obligation to be responsible, but that the environmental and social aspects of performance are also essential for a business's success in conventional terms, ie, that integrating environmental and social performance into business management can also result in improved financial performance. Corporate sustainability is meant, that business strategy seeks to use best business practices to achieve a balance between the needs of stakeholders and potential. In other words, corporate sustainability measure to what extent companies integrate economic and environmental factors and social within their operations (Artiach, et al., 2010).

Sustainability Management is a term that covers many functions needed to monitor activities and outputs more closely, to control on pressures from stockholders, to manipulate shortages of natural resources including increasing energy costs, to review products and processes to recognize and respond to changing cost structures and risks. The need to manage sustainability as a business issue has been to create an additional organizational function which is made primarily responsible for coordinating sustainability management (Schaltegger & Wagner, 2006).

The term 'sustainability accounting' is used to refer to the process of the collection, analysis and communication of sustainability – related information (Schaltegger and Burritt, 2000). The theme of sustainable development considers as one of contemporary issues which received increasing attention at the international and local level, and at the level of governments and businesses. The Organization of Economic Cooperation and Development (OECD, 2002), considers sustainable development as including the integration of economic, social and environmental community objectives, to maximize human well-being at the present time, without compromising the ability of future generations to meet their needs. At the level of the economic unit, The International Federation of Accountants (IFAC 2006), defines the sustainability by its ability to add value and continue to presence in future. The sustainability of corporate business strategy seeks to use best business practices and achieve a balance between the needs of stakeholders and existing recipients. Consequently, the performance of corporate sustainability measures to what extent the company integrates aspects of economic, environmental, social and governance within their operations and thus contribute to the impact on the community. The report of corporate sustainability discloses the financial and non-financial information to internal and external stakeholders concerning the establishment of economic, environmental, social activities and ability to deal with related risks, including contributing to the provision of useful information and can be relied upon for decision-making purposes.

The GRI (Global Reporting Initiative), which is established at Dec. 1997, with the title "Our Common Future" by Brundtland Commission, where the president is Gro Harlem Brundt, with the goal is to provide guidelines to organizations reporting on sustainability (Eldjouzi, G., 2011). The GRI states that "reporting on economic, environmental and social performance by all organizations is as routine and comparable as financial reporting".

The concept of sustainability accounting has emerged from developments in accounting, with two lines of thought. The first line is the philosophical debate about accountability if and how it contributes to sustainable development and which are the necessary steps towards sustainability. This approach is based on an entirely new system of accounting designed to promote a strategy of sustainability. Second line is the management perspective associated with varied terms and tools towards sustainability. This could be seen as an extension of or modification to conventional financial cost or management accounting.

The researcher believes that accountants should not limit the definition of the concept of sustainable development on a narrow conception and

the use of natural resources should not lead to extinct or deteriorate or decrease resources for future generations. The more relevant definition is to concentrate on the maximum limit of economic environment advantages. This mean that the sustainable environment includes three dimensions: (1) Improving the level of welfare of man (economic). (2) Protect and maintain the integrity of environmental and ecological systems (environment). (3) Achieving social justice in the distribution of economic and natural resources.

b) Stages of the evolution of the concept of sustainability

The Study (Sehaltegger And Burritt, 2010), stated That development which leads to sustainable accounting could be distinguished in several time periods in which a number of trends were evident: 1971–1980, 1981–1990, 1991–1995 and up to the present. While Study (Mathews, 1997) considered these periods distinguish in volume of empirical studies, normative statements, philosophical discussion, teaching programs, literature and regulatory frameworks.

Through the period (1971-1980) had been published a large volume of empirical works and a number of papers referring to the buildings of models which support social accounting disclosures. The early works suffered from the following problems (Mathews, 1997):-

1. Subjectivity of analysis, where the social and environmental accounting literature (SEAL) was underdeveloped.
2. Information related to the social dimension of accounting have been mostly connected with employees or products.
3. Environmental matters were treated as part of a social accounting field.
4. The empirical studies and research were mainly descriptive.
5. The philosophical debate was not widespread.

While the period (1981-1990), where the first part of decade showing increased sophistication within the social accounting area, while through the second part of the decade, an apparent transference of interest to environmental accounting with increasing trend of specialization in literature. Generally, the benefits of this period were:-

1. Empirical research was more analytical.
2. Concerns of social disclosures have been replaced by a concentration on environmental disclosures.
3. Normative statements and model building fostering now the environmental area.
4. The development of teaching programs about social and environmental accounting issues.

Some problems are existed through this period:-

1. Increasing the degree of individual interpretation in financial reporting.
2. Less normative statement have been made.

The period (1991-1995) was characterized by the almost complete domination of environmental accounting over social accounting. There have also been a number of extensions from environmental disclosures into environmental auditing as well as the development of framework to guide the applications of environmental auditing and in particular the development of environmental management systems.

The period (1996- present), the accounting literature has demonstrated a considerable increase in concern for the issues of sustainable development for some reasons:

1. The convergence of global capital markets.
2. The emergence of global and regional quality issues.
3. The accounting profession in the Asian financial crisis in 1997/1998 as well the Enron collapse in 2001.

Also, study (Kee P., 2012), mentioned that Several proposals and significant statistical work as well as a growing body of measurement on accounting for sustainable development is being carried out in many international and national settings, The United Nations and the OECD have sponsored work addressing accounting for sustainability. Study (Lamberton, G. 2005) asserted that environmental accounting is the most evolved form of sustainability accounting and increasingly processed in the academic circle beginning with the work of Robert Hugh Gray in the early 1990s, and through the release of the Sustainability Accounting Guidelines at the World Summit on Sustainable Development in 2002.

Study (Gray, R. (2005). Mentioned that recent years have seen an increasing acceptance for these new reporting approaches. Also energetic and innovative experimentation by far-sighted organizations have demonstrated that sustainability aspects in accounting and reporting are crucially important, feasible and practicable. The International Federation of Accountants (IFAC), which objective is to develop the accounting profession and harmonize its standards, today includes 167 member bodies in over 127 countries and represents approximately over two million accountants worldwide.

c) The Three Key Dimensions

There are three key dimensions of sustainability. Every dimension focuses on different subsets, (Ernst and Young (2011) :-

The schedule (1)

Environmental factors	Social	Economic
<ul style="list-style-type: none"> Emissions Hazardous and non hazardous waste Recycling Packaging 	<ul style="list-style-type: none"> Community investment Working conditions Human rights and fair trade Public policy Diversity Safety Anticorruption 	<ul style="list-style-type: none"> Accountability / Transparency Corporate governance Stakeholder value Economic performance Financial performance

Sustainability accounting connects the companies' strategies from a sustainable framework by disclosing information on the three dimensional levels (environment, economical and social). In practice, however, it is difficult to put together policies that promote simultaneously environmental, economic and social goals. This trend has made companies not to emphasize in the creation of value but also in the risk mitigation that are linked to the environmental and social subset of sustainable development. This development has being driven by multiple factors connected to sustainability issues (risk and liabilities) and the need of the company to respond to sustainable growth.

About the sustainability accounting reporting (GRI Downloadable report , 2011), The concept of sustainability accounting is being carried out in an international setting with a vast and growing level of experience in the measurement of sustainable development. It recognizes the role of financial information and shows how this can be extended to the social and environmental level. No regulations, reporting standards, established framework or rules to prepare the report in sustainability accounting. This trend offers companies a greater flexibility than financial statements. There are several ways and mechanisms of reporting, such as assurance statements, environmental, social and economic performance reports, that have been noted. Some of these reports include shorter and more concise reports. Some companies are including in their reports a combination of hard copies and online resources as well as downloadable PDF files. Now we start to suggest the guidelines and frameworks to report on the social environmental information. It is important that companies understand the technique of reporting frameworks, standards and guidelines that may affect the form and content of their reports. In mostly all countries around the world, there are currently no governmental requirements for companies to prepare and publish sustainability reports. Companies that have started to adopt this new method of reporting have faced new challenges in reporting due to the lack of experience. Failing to report accordingly to the guidelines and frameworks provided (see OECD and GRI) would lead them to potentially reduce their credibility of published information.

d) *The Analytical framework*

Analytical frameworks are important for linking information from different areas. Various types of frameworks are being used nowadays depending on the purpose of measurement. These frameworks seek to:

- Integrate the economic, environmental and social dimensions of sustainable development.
- Have sound foundations and to maintain key information needed to improve sustainable development measurements.
- Clarify relationships between different indicators and policies.

Some examples of analytical frameworks are; Pressure – State – Response (PSR) model which is based on one of its variants Driving Force – Pressure – State – Impact – Response used by the European Environment Agency.

The accounting frameworks seek to quantify information in the three dimensions of sustainability accounting. The System of National Accounts (SNA) has proven that measuring sustainable development with the conventional system of financial reporting is inadequate. The accounting structure imposes a more systematic approach that is not too flexible in comparison to the standards and frameworks that offer the GRI and OECD among others. Accounting for sustainability therefore requires an extension of its standard framework. The OECD offers two different approaches to the accounting framework for sustainability accounting:-

i. *Measuring Environmental, economic and social relationships*

Which need a clear understanding of the relationships that exists between the natural environment and the economy. It is not possible without understanding the physical representation. The physical flow accounts are helpful in showing the characteristics of production and consumption activities. Some of these accounts focus on the physical exchange between the economic system and natural environment.

ii. *Wealth-based approaches*

Which refer to the preservation of stock of wealth. Sustainability is observed as the maintenance of the capital base of a country and therefore potentially

measured. A number of environmental changes are contained also in these financial statements that are measured during an accounting period of time.

The GRI offers advanced material to help organizations of all types to create their accountability reports. This published material lead organizations through the reporting process with main idea of becoming more sustainable in their practices in everyday business.

The study (Lamberton, 2005) (SASB, 2014), present the five components of sustainability accounting framework:-

- Sustainability Accounting Objectives, where the main objective is to measure corporate performance about sustainability objective from environmental, social and economical view. Also, the objectives include Ensuring the application of accountability, transparency and disclosure about corporate activity results, providing relevant information for internal and external parties. Information must have a set of qualitative characteristics, which include relevance, transparency and comparability.
- Sustainability Accounting Principles. Where study (Mathews, 2009) considers the financial accounting principles are similar to sustainability accounting standards. For instance, the traditional costs, continuation, the accounting period, accounting entity and materiality concept.

The accounting entity in sustainability accounting depends on the level (partial or total) which the sustainability accounts are prepared, So the accountant prepares sustainability accounts on the partial level to the economic entity, while he prepares sustainability accounts on the total level to the national or regional level. Also the accounting period may be month, quarter, or one year, whether in financial or sustainability accounting. The measurement unit in the sustainability accounting is miscellaneous, do not depend on the monetary unit, The use of social and environmental factors require a variety of units of measurement (Badawi, 2011). Also, beside the traditional costs principle in financial accounting, the sustainability accounting applies the principle of capital preservation to maintain the capital of environmental, social and economic. Also, the sustainability accounting must give priorities to the social and environmental impacts in accordance with the relative importance of items, then it is necessary to take materiality concept (Gray et al., 1995).

The Principles of Sustainability Accounting. promote and commits the participants to collaborative research and training in this area. The acknowledge and application of sustainability accounting principles help the accountants to provide relevant information, also educate tomorrow's accountants to embed sustainability throughout the profession.

SASB has established various principles to guide the development of the sustainability accounting standards. These include issuing standards when:

1. They are applicable to all investors on an evidence based approach.
2. They are pertinent and relevant across an industry, again based on robust evidence.
3. They are focused on driving long term value creation and risk mitigation.
4. The expected benefits exceed the perceived costs.
5. They are actionable by the companies.
6. They are easily verified such that they are measurable, quantifiable when possible, comparable, replicable and auditable.
7. They are objective and support decision making.
8. They are of the highest quality possible at any given time.
9. They embody the minimum set of standard criteria which include relevance, usefulness, applicability, cost-effectiveness, comparability, completeness, directionality and audit ability.
10. They are reflective of the views of stakeholders.
11. They support the shift to integrated reporting.
12. They support the convergence to international accounting standards.

Also, Study (Alssawi, 2012) mentioned a set of principles:-

1. The transparency. It Means full disclosure of processes, procedures and assumptions used to prepare a sustainability report for the company.
2. The inclusiveness. It means to perform all the diverse needs of stakeholders who use sustainability reports.
3. The susceptibility to Review. This principle suggests the range which is permitted by the administrative information system and communication practices in the company to conduct examination for accuracy by internal and external parties.
4. The completion. This principle permits to disclose on all information concerned by the stockholders with sufficient details in order to can evaluate the environmental, social, and economical performance. Also, the completion principle includes three dimensions (operational, scale, and time).
5. The relevance. It means that information provided have a high degree of correlation with the decision to be taken. It indicates that the principle established by the sustainability report of seeking to develop their performance in the context of environmental, economic and social aspects.
6. The accuracy. It means achieving a degree of accuracy in the information disclosed for users to make decisions on high degree of accuracy.
7. The objectivity. Sustainability report should provide a balanced presentation of the performance. The

accountant should avoid bias in selecting and providing information, It means fair presentation.

8. Susceptibility to comparison. Accountants must keep the consistency and stability within the limits and scope of the reporting and disclosure. The accountant must present information in comparative form with past information.
 9. The Clarity. The information must be understandable and usable by different groups of users.
 10. The time. The accountant must submit sustainability reports according to regular schedules to meet the needs of users and compatible with the nature of the information about the benefit and economic performance.
- Methods of measuring and recording. The measurement process within the sustainability accounting faces a number of difficulties, mainly the nature of the social or environmental activities to be measured. It's also non-specific activities have not been agreed upon and the existence of a gap between what corporate expects and what society expects. So the relevant measurement approach in Sustainability accounting is a multi-dimensional measurement approach. This approach includes quantifying and descriptive measurement. There are various types of quantitative measurement system to include the original count, ordinal measurement system, scale measurement system and relative measurement system. While the descriptive measurement considers the easiest methods of measurement. It's depends on the operations and activities description of environment and society carried out by the corporate.

The study (Bebbington et al., 2009), explained that the analysis tools and data recording for sustainability accounting with the equivalent in financial accounting. And study (Deegan et al., 2002), suggested using of balanced score – card (BSC) to measure and evaluate multi dimensions.

- Corporate Sustainability Reporting. Sustainability report illustrates quantifying and descriptive information, financial and nonfinancial, to communicate these information to stockholders. The forms of sustainability reports are several, and include performance reports, output and input analysis, analysis of the product life cycle, the report of the stock of natural capital, statements of legislation and regulations, and Statement of social and environmental impacts. The sustainability report must be comprehensive, whether in measurement, disclosure and achieving accountability (Bebbington J. and Gray R., 2001).

The disclosure of sustainability is controlled by two factories. The first includes increase in awareness of internal and external stakeholders about issues related

with sustainability and it's effect on economic performance. The second includes the needs and motives of business units to respond with sustainability issues (Cormier & Gordon, 2001).

Also, The study (Rao, Sunita, 2012), mentioned research on sustainability is important because an increasing number of entities are preparing sustainability reports (SR), which attempt to measure their environment, social and economic performance. That focus on SR assurance because of two reasons: (1) A growing number of companies are issuing SRs. (2) Obtaining assurance on these reports. However, there is no formal approach to assist the assurance provider in their complex risk analysis and planning activities. The researcher concluded that provision of assurance on a sustainability report improves perceived reliability of the environmental and social information. Also, the professional and academic accountants can contribute significantly to the debate surrounding corporate social responsibility as they have the ability to provide a mechanism for holding corporations responsible for what they do. The need to prepare sustainability report:-

1. The financial statements and reports considers for companies the main tool for investors and other users and stakeholders to make decisions. With the rapid change in the business environment has become, There is agreement that these reports do not adequately reflect the multi-dimensional at the present time.
2. There is a need to disclose non-financial information to include issues such as sustainability, corporate governance and risk management. And the role of the firm in achieving social and environmental goals, Such issues are not covered by the financial statements and reports, and here appeared the importance of social and environmental disclosure and then to reveal the evolution of sustainable development (Wheeler and Elkington, 2001).
3. The increasing trend towards companies issuing sustainability reports (CSR), and includes a sustainability report to disclose financial information and non-financial for internal and outsiders stakeholders about the economic and social activities of company, therefore, the report also called " triple bottom line reporting.
4. The motives and reasons of companies to issue sustainability reports are multiplied, these include factors associated with the characteristics of the companies, factors associated with the surrounding environment, the factors associated with the culture of the entity. For example, include the factors that are related to the characteristics of each of the companies the size of the company, and the type of industry, financial performance, the size of the stock trading in the stock market, and the proportion of debt. While surrounding environmental factors

include each of political and social variables (Klumpes, 2011).

5. Sustainable development and disclosure of sustainability reporting creates both opportunities and challenges for accountants through the key role that can be played by accountants in the sustainability accounting by measuring and providing information on economic, environmental, and social performance (ICAEW, 2004).
6. Corporate sustainability reports are a way to meet the needs of shareholders and the interests of the owners of the information needed to evaluate the long-term performance of the enterprise (Soloman and Lewis, 2002).

Generally, the sustainability report of any economic unit, must include identification about *vision and strategy of sustainability* related this unit. The vision and strategy of sustainability include challenges management related with social, environmental and economical performance, and determining the parties of stockholders concerned with these issues, business strategies, corporate objectives, procedures of issues, and the opportunities and threats to improve the social, environmental and economical performance.

- Benefits realized from the preparation of sustainability reports (KPMG,2008) (,which include

focus on transparency, information about the use of resources available to provide cost data and revenue-generating, forming a perception of stakeholders to protect and strengthen the reputation of the entity, focus on Sustainability approach and strategy to stimulate work towards continuous improvement, sustainability reports disclose on the commitment extent of the unit about the procedures, rules and legislations to reassure stakeholders, data about the risks and how to manage, Strengthen the competitive position through the promotion of innovation, Strengthening management systems and decision-making through the management of environmental, social and economic risks through identifying the opportunities and external threats and identifying the strengths and weaknesses within the entity, increase awareness and stimulation of workers through increasing the loyalty of employees and workers and reduce turnover and sustainability reports lead to attract money from both lenders or investors.

e) *Some organizations and initiatives assist companies*

The listed organizations and initiatives assist companies in finding the right path to sustainability accounting. For further information about why and how to report consult the following organizations:-

The schedule (2)

Company/Organization	Description	Link
Global Reporting Initiative	The Global Reporting Initiative's (GRI) provides reporting guidelines and is the most adopted framework for sustainably reporting.	http://www.globalreporting.org
World Business Council for Sustainable development	A global association with 200 companies, it provides a platform for companies to explore sustainable development.	http://www.wbcsd.org
Corporate Register	Is the largest online directory of companies that has issued a CRS, sustainability or environmental reports.	http://www.corporateregister.com
KPMG	One of the world's leading consulting companies. It also provides services related to sustainability disclosure and related topics.	http://www.kpmg.com

Company/Organization	Description	Link
Ernst and Young	One of the world's leading consulting companies. It also provides services related to sustainability disclosure.	http://www.ey.com
Sustainability	A widely recognized consultancy on issues related to sustainable development, accountability.	http://www.sustainability.com
Accountability	Accountability is an international professional institute that focuses on the sustainable development, accountability and public disclosure.	http://www.accountability.org/
Carbon Disclosure Project	The Carbon Disclosure Project is an international initiative to disclosure corporate information relating climate change. http://www.cdproject.net	
Indian Centre for Corporate Social Responsibility (ICCSR)	ICCSR is a Not for Profit Global Advisory and Training Organization engaged in the Business of promoting Corporate Social Responsibility in India and globally.	http://www.iccsr.org
American Board to organize the sustainability	The Board issued 3 standards belong:- Health care, Banking and communication and technology. SASB will issue 8 standards to cover the residual sectors.	www.sasb.org/sasb/vision-mission/

The Sustainability Accounting Standards Board (SASB, 2014), is an independent non-profit organization. SASB's mission is to develop and disseminate sustainability accounting standards that help publicly-listed corporations disclose material factors in compliance with SEC requirements. SASB vision a world where transparent corporate sustainability performance and a shared understanding of its significance drive companies and investors to make decisions that increase long-term value and improve sustainability outcomes. SASB's mission is to develop and disseminate sustainability accounting standards that help publicly-listed corporations disclose material factors in compliance with SEC requirements. Through

these standards, along with associated education and outreach, SASB is working to increase the usefulness of information available to investors, and improve corporate performance on the environmental, social, and governance issues most likely to impact value.

The following schedule demonstrates the key dates, sectors, status of the standards belong the sustainability accounting by SASB:-

The schedule (3)

NO.	Sector	Status and Date	The standards issued
1	Health Care	Issued at 31/7/2013	The standards issued were to cover the first 3 sectors. Each Standard include Two Main Titles :- Introduction and Material Sustainability Topics & Accounting Metrics.
2	Financials	Issued at 25/2/2014	
3	Technology & Communications	Issued at 2/4/2014	
4	Non-Renewable Resources	Incorporating Public comment Period Feedback. at 14/1/2014	
5	Transportation	18/4/2014	
6	Services	Incorporating Feedback. At 16/7/2014	
7	Resource Transformation	Not started 7/10/2014	
8	Consumption I	Not started 13/1/2015	
9	Consumption li	Not started 8/4/2014	
10	Enewable Resources & Alternative Energy	Not started 7/7/2015	
11	Infrastructure	Not started 1/12-2015	

SASB Standards are comprised of (1) disclosure guidance and (2) accounting standards on sustainability topics for use by U.S. and foreign public companies in their annual filings. SASB's disclosure guidance identifies sustainability topics at an industry level and—depending on the specific operating context of a company—may be material to a company within that industry. SASB's accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. When making disclosure on sustainability topics, companies adopting SASB's accounting standards will help to ensure that disclosure is standardized and therefore useful, relevant, comparable and auditable.

Each standard includes two main points, the first introduces the disclosure guidance, which identifies sustainability topics at an industry level and- depending on the operating context of a company – may be material to a company within that industry.

The second point is that the accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. For example, Health care standard comprises 11 topics, each topic presents it some codes, and each code has accounting metric.

The first issued standard (Health Care Sector) covers 6 main fields:-

(1) Biotechnology. (2) Pharmaceuticals. (3) Medical

Equipment and Supplies. (4) Health Care Delivery. (5) Health Care Distributors. (6) Managed Care.

The Second issued standard (Financial Sector) covers 6 main fields:-

(1) Commercial Banks. (2) Investment Banking & Brokerage. (3) Asset Management & Custody Activities. (4) Consumer Finance. (5) Mortgage Finance. (6) Security & Commodity Exchanges.

The Third issued standard (Technology & Communication) covers 6 fields:-

(1) Electronic Manufacturing Services & Original Design Manufacturing. (2) Software & It Services. (3) Hardware. (4) Semiconductors. (5) Telecommunications. (6) Internet Media & Services.

The study (Odeh K., 2013) supports a framework took a balanced approach in accounting for the environmental, economical and social sustainability issues in ICT and recognized contributions of innovation to sustainable Ict. The rating method was based on a weighted and aggregated set of criteria that were validated by ICT sustainability experts.

f) Developing the managerial accounting

The study (Rasnick, D. L. , 2013), explored how higher education can enable the management accounting curriculum to include sustainability content and learning outcomes to encourage future accountants

and leaders to use such information in organizational decision-making. It examines current system thinking theories, and studies how the leverage points available through the management accounting function may assist organization to embed sustainability into daily practice. To support this transformation, the research reviews the knowledge – base, activities, and tools of management accounting and suggests how to incorporate sustainability principles and criteria into the curriculum within a community college in British Columbia (BC) that has established sustainability as a strategic goal. Action explore how the management accounting curriculum within the school of business could be enhanced to support organizations in embedding sustainability into practice, and identifies recommendations for curriculum redesign at the department level, and key elements of change –making to enable it. The research question is "How can management accounting curriculum in higher education be enhanced to support sustainability?"

The Purpose of Study (Elewa, May, 2007) is to present the argument for and against Environmental Accounting, and perhaps bridge the gap between both views. After bridging the gap, the next step is to encourage all companies to have a strong well defined Environmental Management System intact that will be responsible for the application of environmental accounting to reduce or eliminate environmental costs. At the light of previous words, the main questions are:- (1) Does Environmental Accounting affect profit growth, development, and sustainability of a business? (2) How can the Environmental Accounting technique of the case company, be developed? (3) Who must take on the responsibility of applying Environmental Accounting?. The case study conducted at Nypro company, as plastics molding and injection.

The main finding of this research implies that applying an adjusted conventional accounting system, which includes full environmental cost assessment, produces accurate accounting reports for the organization. These reports are considered an imperative source of truthful information regarding the organization's operation. Such information is essential for formulating the most appropriate decisions regarding the organization's profit growth, development, and sustainability.

The study (Guthrie, J. et al., 2008) mentioned that the nature of industry presents material element in determining social and environmental (SE) policy and reporting requirements, where the SE impacts very greatly from industry to other. Also the generalized nature of many SE disclosure instruments is a limitation on the accuracy of the results of empirical studies which only focus on annual report disclosure and size. This paper attempts to address this limitation by developing an industry – specific reporting framework to examine SE performance based on an empirical analysis of the

issues that apply within the chosen industry. Also, it assesses corporate SE reporting against intra – industry issues, as well as more universal reporting requirements, the latter derived from widely accepted and utilized reporting frameworks in the literature.

While the study (Xing Y., et. All, 2009), Its purpose is to design an integrated model to assess and evaluate all dimensions (economical, social, and environmental) of urban development and to introduce accepted model from all parties of stockholders. Also, this model allows decision makers to identify sustainability indicators and which may lead to more holistic evaluation of the sustainability impact of elements of the urban environment.

The study (Frame B. and Cavanagh J., 2009), examined the application of sustainability in case studies, where it faced issues over assessment boundaries, data limitations, and stockholder engagement. There is much development needed, especially around engagement and externalities, before such techniques can achieve independent lives of their own away from their research – based caregivers.

Corporate sustainability program requires (Galayda J. and J. Yudelson, 2010): -

1. Focus on the internal strengths and take advantage of external opportunities.
2. Identify weaknesses and address and counter the threats of the external environment.
3. The implementation of that vision, the required work team must assigned. to collec and analyze information on the effects of social, environmental and economic for the purpose of decision-making and the development of strategic plans and achieve the vision set.
4. Developing important performance measures to the sustainability of the economic unit, by through an integrated system of accounting tools for Corporate sustainability.
5. Once the formulation of vision, team work selection, and the development of performance measures, the implementation of strategic plans for sustainability in line with the competitive situation and the internal strengths and opportunities externally.
6. The efforts to achieve sustainability established effectively must be connected to stakeholders, both internal and external, through the sustainability report. Whether the information is financial or non-financial, and according to an agreed 3 dimensions (environment, society and economic).

The study (Birkin et al., 2005) demands that disclosure of accounting to include social and environmental posts, to also include corporate governance and risk management. The International Federation of Accountants (IFAC, 2006) determines general framework for the work of accountants in the field of corporate sustainability to include: sustainability

management, external reporting, support systems, non-financial support considerations and aspects of sustainability in business practices, increase transparency and directed the long-term to develop policies to address issues of sustainability. Study (Simnett et al., 2009) considers the sustainability accounting presents challenges and opportunities for accountants. While study (Burritt and Schaltegger, 2010) suggests 3 approaches to develop corporate accounting sustainability. The first approach begins the development from inside (the managers) to support the competitive position, the second approach begins from outside (the external stockholders), depending on idea includes the corporate presents social entity. While the third approach integrates the two previous approaches, or we must collect the internal and external parties.

g) *The Factors Effect on Sustainability*

The study (Pikeville S., et. all, 2013) examines the role of contextual and strategic factors in the development of environmental management control systems in manufacturing companies. The authors test the roles of perceived ecological environmental uncertainty, perceived stakeholder pressures, and the degree of corporate environmental pro-activity on the development of environmental management control systems. The main results from a survey of 256 manufacturing companies suggest that companies that perceive greater ecological environmental uncertainty are less inclined to develop a proactive environmental strategy.

The study (Mahoney and Roberts, 2007), examined the relationship of corporate social performance (CSP) to financial performance (FP) and institutional ownership. The empirical analysis performed on a large –sample of publicly held Canadian firms and use a novel independent measure of CSP. Based on tests utilizing four years of panel data. The researchers founded no significant relationship between a composite measure of firms 'CSP and FP, while the researchers founded significant relationships between individual measures of firms 'CSP regarding environmental and international activities and FP. Also, the findings indicate a significant relationship between firms' composite CSP measure and the number of institutions investing in firms' stock. In addition, the researchers founded significant relationship between firms' CSP ratings regarding their international activities and product quality and the number of institutions investing in firms' stock.

The study (Deegan and Soltys, 2007) provided an insight undertaken within Australian. The paper demonstrated that Australian researchers account for a significant amount of internationally published social accounting research, but emphasizes that the research effort seems to be confined to a limited number of researchers perhaps reflecting a lack of 'take – up' in this

area in terms of the scale of participation. The paper also considered various factors which seem to be impeding the 'accounting researchers.

The study (Adams and Frost, 2008), examined the process of developing key performance indicators (KPIs) for measuring sustainability performance and the way in which sustainability KPIs are used in decision – making, planning and performance management. Interviews were conducted with personal from four British and three Australian companies. The findings indicated that the organizations are integrating environmental indicators, and increasingly also social indicators, into strategic planning, performance measurement and decision-making including risk management. The sustainability issues on which sample focus and the management operation on which they impact vary considerably.

The study (Guerreiro M., et all., 2008), used ordinal regression, structural equation modeling, and multivariate analysis techniques to investigate the preparedness to adopt IFRS that was exhibited by listed Portuguese companies in August 2003. The researchers founded the level of preparedness was significantly associated with company size, commercial internationalization, audit by a 'big 4' accounting firm, and profitability. The findings will help to indicate the pre-condition that are likely to spur lagging companies (and countries) to prepare to implement IFRS.

The study (This tlethwaite J., 2011), demonstrated the relationship between the environmental policies and global financial markets, Also the debates of international accounting standards for disclosure (IAS37, IFRS3 and FAS5) on environmental performance. The environmental issues will be material accounting issues when it become as costs on the company. In spite the complexity of costs measurement resulted from damage in environment, the accountants must take these costs when make pricing decisions. The financial accountant must disclose the material environmental costs when prepare the financial statements. The IASB must harmonizes the accounting standards between the countries to be able measure the environmental performance. The measurement must include the liabilities and risks which be linked with the environment.

The study (United Nation Division For Sustainability Development, 2001) mentioned that the large number of stakeholders have begun to focus on Accounting Sustainability and their applications which aims not include environmental factors and the overall economic only, but also social aspects of basic essential for sustainable environment. Broader definition that includes the UN Working Group on the accounting for the environment, which distinguishes clearly the physical and financial aspects of the environment. This definition has been reached by international agreement

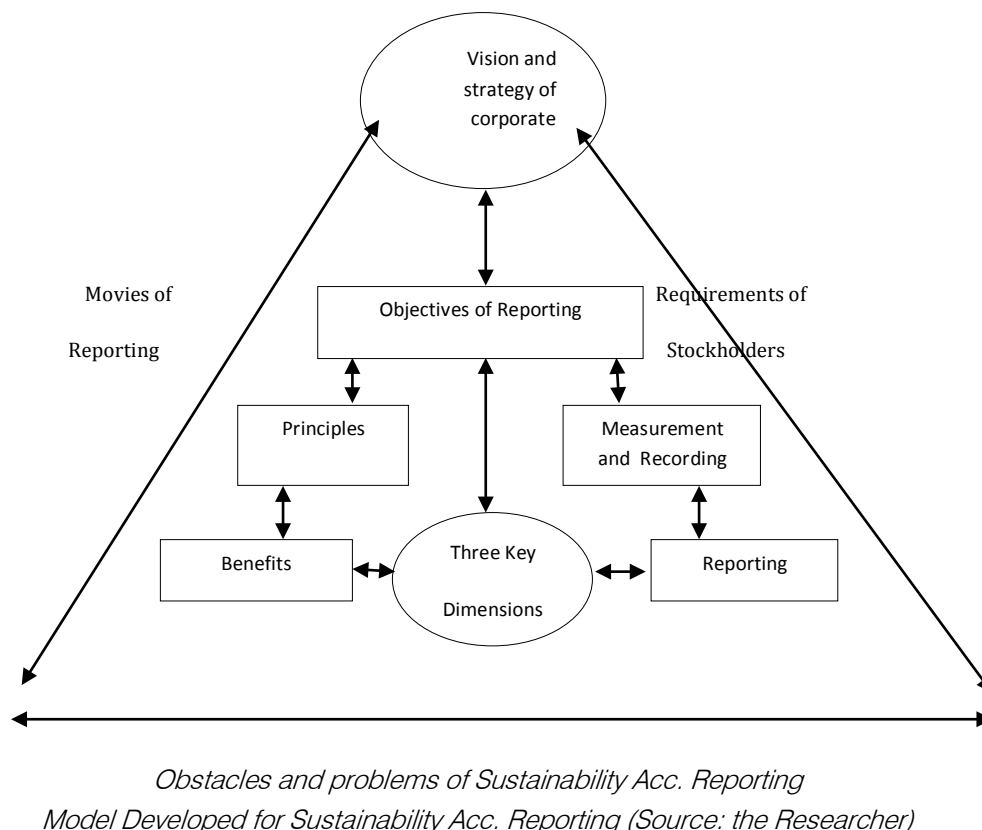
for the members of the group, which represents 30 countries. Under the Group Management Accounting environmentally defined as the identification and collection and analysis and the use of two types of information for internal decision-making:-

1. Information on the use of physical flows of energy and direction, water and materials, including waste.
2. The financial information relating to the environment, cost reduction and revenue.

The contemporary trend of the concept of management accounting tends to neglect of the

environment and social concerns will lead to inefficiency, because the use of resources is by maximizing their values in the long term while taking considerations relating to the external aspects associated with the activity of the organization.

The researcher can summarize the conceptual framework for sustainability accounting reporting depending on the last paragraphs as following:



VIII. THE HYPOTHESIS OF RESEARCH

Depending on the problem, objectives and analysis of literature of research, the researcher can formulate the following three hypotheses:-

1. There are several motives that stimulate Commercial Bank Management to prepare and publish sustainability accounting reports.
2. The Commercial Bank managers do not face any difficulties or problems hinder the process of preparing and publishing sustainability accounting reports.
3. There is a high level of satisfaction of all parties to the multi-stakeholders towards sustainability accounting reports prepared and published by the Commercial Bank.

IX. THE FIELD STUDY

The field study seeks to test the research three hypotheses, where the final purpose is to identify the conceptual framework of sustainability accounting reporting. Also the sub purposes are to measure the level of satisfaction all parties of stakeholders, to identify the motives of preparing the reports required, and to determine the problems and difficulties of disclosure operation related the sustainability accounting reports.

a) Population and Sample of the Study

The population of the study are two groups .the first group includes all Saudi banks operating in the Kingdom of Saudi Arabia, which include 12 banks (Which is expected from it's management to prepare sustainability reports):-

The schedule (4)

No.	Name of Bank	No.	Name of Bank
1	National Bank of Saudi Arabia	2	The Saudi British Bank
3	French Saudi Bank	4	Saudi Holland Bank
5	The Saudi Investment Bank	6	Arab National Bank
7	Al Ballad Bank	8	Al Jazzier Bank
9	Riyadh Bank	10	Samba Financial Group (Samba).
11	Al Rajah Bank	12	Development Bank.

The first questionnaire will be designed to distribute statistically on some managers work in Saudi Banks. The objective is to identify on main movies (drivers) of disclosure and to determinate the problems and difficulties of reporting. While the second group presents all parties of stakeholders (Investors, Workers, Customers, Lenders, Government Agencies, Suppliers, Non Governmental Organizations, Audience and Board of Directors). The second questionnaire will be designed also to distribute statistically as sample to find out the extent of their awareness about the importance of sustainability reporting. The researcher depended on

personal interview beside the two questionnaires suggested. The first sample was selected randomly 36 items from banks group, also the second sample was selected randomly 54 items from the stakeholders.

b) Data collection method

The researcher adopted the style of the list of questionnaire and the personal interview. Also, the verbal formulas, the ease and clarity were taken into account through the design of questionnaires. The first appendix (1) presents the first questionnaire, while the second appendix (2) regards the second questionnaire. The schedule (5) summarizes replies received :-

The schedule (5)

Data	The first questionnaire	The second questionnaire
Questionnaires distributed	36	54
Responses received	28	42
The response rate	%77.8	%77.8
Replies sound	25	36
Response sound rate	%89.3	%85.7

c) Statistical methods used in the analysis of data

The search data undergone for statistical analysis plan aimed at checking the veracity of the assumptions. The research used SPSS program to provide many statistical indicators, such as the correlation coefficient, standard deviation, mean and other statistical indicators. Nonparametric tests were used because of the nature of the data (sign – test and wilcoxon- test). The decision of reject or acceptance depends on the observed level of significance. Data were analyzed on the assumption that the level of significance equal to 0.05, it is meaning that the maximum acceptance probability of falling into the error of the first kind is 0.05.

to prepare and publish sustainability accounting reports.", Depending on some descriptive measures, frequency distribution and relative frequencies, It can summarize the results as follows:-

X. RESULTS OF STATISTICAL ANALYSIS

The researcher can summarize the results of statistical analysis of each hypotheses on a statistical basis as follow:

a) Results of statistical analysis for the first hypotheses

The first hypotheses states "There are several motives that stimulate Commercial Bank Management

The schedule (6)

Motive	N		Mean	Median	Std deviation	Min.	Max.
	valid	missing					
1-Sustainability Accounting Reporting Aims to interaction with environmental and Social Issues in society.	25	0	4.80	5.00	4.08	4.00	5.00
2-Sustainability Accounting Reporting Aims to Earn the Legitimacy of the Existence of the Bank as A National Institution.	25	0	4.84	5.00	0.374	4.00	5.00
3-Sustainability Accounting Reporting Aims to Increase the value of the Bank's Shares.	25	0	4.04	5.00	1.428	1.00	5.00
4-The Bank Management expects environmental and Social benefits realization Through the Disclosure of Sustainability Reports.	25	0	4.88	5.00	0.332	4.00	5.00
5-The Bank Management expects Costs Accepted As a Result of Disclosure of Sustainability Reports.	25	0	4.08	5.00	1.288	1.00	5.00
6-Issuing Sustainability Reports 25 are in Response to the Need to Adhere to the Regulations and Legislation.		0	4.84	5.00	0.473	3.00	5.00
7-Issuing Sustainability Reports are in Response to the Stakeholders Need to Information.	25	0	4.64	5.00	0.757	2.00	5.00
8-Issuing Sustainability Reports as Response to Bank Marketing Activities for it Services or Products.	25	0	2.52	2.00	1.686	1.00	5.00
9-Sustainability Accounting Reporting Makes Improvements in Bank Reputation.	25	0	4.72	5.00	0.614	3.00	5.00
10-Sustainability Accounting Reporting Makes Improvements in Bank Competitive Advantages.	25	0	4.84	5.00	0.624	2.00	5.00
11-Bank Management Considers Issuing Sustainability Reports as Long Term Investment in 25 Environmental and Social Activities.		0	4.40	5.00	1.00	2.00	5.00
12-There is Strong Correlation Between Issuing Sustainability Reports and Bank Ability to achieve Profits.	25	0	4.00	4.00	1.190	2.00	5.00

13-There is Strong Correlation Between Issuing Sustainability Reports and Bank Position in Shares Market.		0	4.36	5.00	1.150	2.00	5.00
14-Preparing Sustainability Reports Joins with the Desire of Bank Management as Ethical Investor.	25	0	4.16	5.00	1.344	1.00	5.00
15-Preparing Sustainability Reports Conform With Governance Requirements.	25	0	4.96	5.00	0.200	4.00	5.00
16-Sustainability Accounting Reporting Depends on Bank Size.	25	0	4.72	5.00	0.614	3.00	5.00
17-Sustainability Accounting Reporting Depends on Bank Profitability.	25	0	4.52	5.00	0.963	2.00	5.00
18-Sustainability Accounting Reporting Depends on The Pressure of other competitive Banks.	25	0	4.20	4.00	0.866	2.00	5.00

Also, the frequency table for each motive will be as follows :-

The schedule (7-1)

The motive (1)	Frequency	Percent	Valid Percent	Cumulative Percent
Valid accept	5	20.0	20.0	20.0
Accept strongly	20	80.0	80.0	100.0
Total	25	100.0	100.0	

The schedule (7-2)

The motive (2)	Frequency	Percent	Valid Percent	Cumulative Percent
Valid accept	4	16.0	16.0	16.0
Accept strongly	21	84.0	84.0	100.0
Total	25	100.0	100.0	

The schedule (7-3)

The motive (3)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	2	8.0	8.0	8.0
Refuse	4	16.0	16.0	24.0
Accept	4	16.0	16.0	40.0
Accept strongly	15	60.0	60.0	100.0
Total	25	100.0	100.0	

The schedule (7-4)

The motive (4)	Frequency	Percent	Valid Percent	Cumulative Percent
Valid accept	3	12.0	12.0	12.0
Accept strongly	22	88.0	88.0	100.0
Total	25	100.0	100.0	

The schedule (7-5)

The motive (5)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	1	4.0	4.0	4.0
Refuse	4	16.0	16.0	20.0
Neutral	1	4.0	4.0	24.0
Accept	5	20.0	20.0	44.0
Accept strongly	14	56.0	56.0	100.0
Total	25	100.0	100.0	

The schedule (7-6)

The motive (6)	Frequency	Percent	Valid Percent	Cumulative Percent
Neutral	1	4.0	4.0	4.0
Accept	2	8.0	8.0	12.0
Accept strongly	22	88.0	88.0	100.0
Total	25	100.0	100.0	

The schedule (7-7)

The motive (7)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	1	4.0	4.0	4.0
Neutral	1	4.0	4.0	8.0
Accept	4	16.0	16.0	24.0
Accept strongly	19	76.0	76.0	100.0
Total	25	100.0	100.0	

The schedule (7-8)

The motive (8)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	12	48.0	48.0	48.0
Refuse	2	8.0	8.0	56.0
Neutral	2	8.0	8.0	64.0
Accept	4	16.0	16.0	80.0
Accept strongly	5	20.0	20.0	100.0
Total	25	100.0	100.0	

The schedule (7-9)

The motive (9)	Frequency	Percent	Valid Percent	Cumulative Percent
Neutral	2	8.0	8.0	8.0
Accept	3	12.0	12.0	20.0
Accept strongly	20	80.0	80.0	100.0
Total	25	100.0	100.0	

The schedule (7-10)

The motive (10)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	1	4.0	4.0	4.0
Accept	1	4.0	4.0	8.0
Accept strongly	23	92.0	92.0	100.0
Total	25	100.0	100.0	

The schedule (7-11)

The motive (11)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	3	12.0	12.0	12.0
Accept	6	24.0	24.0	36.0
Accept strongly	16	64.0	64.0	100.0
Total	25	100.0	100.0	

The schedule (7-12)

The motive (12)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	5	20.0	20.0	20.0
Neutral	2	8.0	8.0	28.0
Accept	6	24.0	24.0	52.0
Accept strongly	12	48.0	48.0	100.0
Total	25	100.0	100.0	

The schedule (7-13)

The motive (13)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	4	16.0	16.0	16.0
Neutral	1	4.0	4.0	20.0
Accept	2	8.0	8.0	28.0
Accept strongly	18	72.0	72.0	100.0
Total	25	100.0	100.0	

The schedule (7-14)

The motive (14)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	2	8.0	8.0	8.0
Refuse	2	8.0	8.0	16.0
Neutral	2	8.0	8.0	24.0
Accept	3	12.0	12.0	36.0
Accept strongly	16	64.0	64.0	100.0
Total	25	100.0	100.0	

The schedule (7-15)

The motive (15)	Frequency	Percent	Valid Percent	Cumulative Percent
Valid accept	1	4.0	4.0	4.0
Accept strongly	24	96.0	96.0	100.0
Total	25	100.0	100.0	

The schedule (7-16)

The motive (16)	Frequency	Percent	Valid Percent	Cumulative Percent
Neutral	2	8.0	8.0	8.0
Accept	3	12.0	12.0	20.0
Accept strongly	20	80.0	80.0	100.0
Total	25	100.0	100.0	

The schedule (7-17)

The motive (17)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	2	8.0	8.0	8.0
Neutral	2	8.0	8.0	16.0
Accept	2	8.0	8.0	24.0
Accept strongly	19	76.0	76.0	100.0
Total	25	100.0	100.0	

The schedule (7-18)

The motive (18)	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	2	8.0	8.0	8.0
Neutral	1	4.0	4.0	12.0
Accept	12	48.0	48.0	60.0
Accept strongly	15	60.0	60.0	100.0
Total	25	100.0	100.0	

The following schedule shows the sort according to relative importance from views of sample responses (25 items):-

The schedule (8)

N	Motive	Sample	Mean	Sort
15	Preparing Sustainability Reports Conform With Governance Requirements.	25	4.96	1
4	The Bank Management expects environmental and Social benefits realization Through the Disclosure of Sustainability Reports.	25	4.88	2
10	Sustainability Accounting Reporting Makes Improvements in Bank Competitive Advantages.	25	4.84	3
6	Issuing Sustainability Reports are in Response to the Need to Adhere to the Regulations and Legislation.	25	4.84	4
2	Sustainability Accounting Reporting Aims to Earn the Legitimacy of the Existence of the Bank as A National Institution.	25	4.84	5
1	Sustainability Accounting Reporting Aims to interaction with environmental and Social Issues in society.	25	4.80	6
16	Sustainability Accounting Reporting Depends on Bank Size.	25	4.72	7
9	Sustainability Accounting Reporting Makes Improvements in Bank Reputation.	25	4.72	8
17	Sustainability Accounting Reporting Depends on Bank Profitability.	25	4.64	9
11	Bank Management Considers Issuing Sustainability Reports as Long Term Investment in Environmental 25 and Social Activities.		4.52	10
13	There is Strong Correlation Between Issuing Sustainability Reports and Bank Position in Shares Market.	25	4.40	11
18	Sustainability Accounting Reporting Depends on The Pressure of other competitive Banks.	25	4.36	12
14	Preparing Sustainability Reports Joins with the Desire 25 of Bank Management as Ethical Investor .		4.20	13
5	The Bank Management expects Costs Accepted As a Result of Disclosure of Sustainability Reports.	25	4.16	14
3	Sustainability Accounting Reporting Aims to Increase the value of the Bank's Shares.	25	4.08	15
12	There is Strong Correlation Between Issuing Sustainability Reports and Bank Ability to achieve Profits.	25	4.04	16
7	Issuing Sustainability Reports are in Response to the Stakeholders Need to Information.	25	4.00	17
8	Issuing Sustainability Reports as Response to Bank Marketing Activities for it Services or Products.	25	2.52	18

Those statistical results will benefit in sorting priorities related motives when prepare sustainability accounting reports. In terms of testing the reliability of a list of the questionnaire, it turns out that the value of Cronbach's Alpha index is 0.704, which is well regarded in such cases. The researcher used two tests to accept

or refuse the first hypotheses, Sign – Test and Wilcoxon-Test are used. Accepted all the statements and explained the motives for the preparation of a sustainability report except the eighth “marketing activities associated with the bank”.

The schedule (9-1)

Results of Sign – Test(Q8)

Q	N	Below	Equal	Above	P	Median
Q8	25	14	2	9	0.8950	2.00

The schedule (9-2)

Wilcoxon Signed Rank Test (Q8)

Q	N	Below	Equal	Above	P	Median
Q8	25	23	2	89	0.934	2.50

Based on the previous statistical analysis of the first hypotheses, the research will accept the hypothesis, that the process of preparing a sustainability report subject to a group of sustainability motives, which received general acceptance among members of the sample.

or problems hinder the process of preparing and publishing sustainability accounting reports.”. Depending on some descriptive measures, frequency distribution and relative frequencies, It can summarize the results as follows:-

b) Results of statistical analysis for the second hypotheses

The second hypotheses states “The Commercial Bank managers do not face any difficulties

The schedule (10)

Motive	N		Mean	Median	Std deviation	Min.	Max.
	valid	missing					
1-The low awareness level of bank staff of environmental and social issues.	25	0	4.20	4.00	0.957	2	5
2-The fear of Bank Management that sustainability reports make a negative impact on the reputation of the bank	25	0	2.40	2.00	1.291	1	5
3-The fear of Bank Management that sustainability reports make Incriminating Evidence Within the Legal Accountability.	25	0	3.04	2.00	1.428	1	5
4-Keenness of some members of the Bank's management about the secret factor.	25	0	2.40	2.00	1.291	1	5
5-Lack of Confidence of the Bank's Management about the Fact that Sustainability Reporting is a Useful Tool for Stakeholders.	25	0	2.32	2.00	0.945	1	5

6-The weakness of the bank's management look toward the strategic Approach to be Applied.	25	0	3.96	4.00	1.020	2	5
7-Fear of Bearing the Additional Costs as a Result of the Preparation of Sustainability Reports.	25	0	4.64	5.00	0.860	2	5
8-Not to Issue Sustainability Reports Due to the Scarcity and 25 Weakness of Knowledge by Accountants.		0	4.72	5.00	0.843	1	5
9-Lack of accounting standards obliged to issue sustainability reports.	25	0	3.96	5.00	1.428	1	5
10-Failure or Weakness of the Existence of Assurance Services for Sustainability Reports.	25	0	4.52	5.00	0.770	2	5

Also, the frequency table for each problem will be as follows:-

The schedule (10-1)

The problem 1	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	3	12	12	12
Accept	11	44	44	56
Accept strongly	11	44	44	100
Total	25	100	100	

The schedule (10-2)

The problem 2	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	5	20.00	20.00	20.00
Refuse	14	58.00	58.00	78.00
Accept	3	12.00	12.00	90.00
Accept strongly	3	12.00	12.00	100.00
Total	25	100	100.00	

The schedule (10-3)

The problem 3	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	3	12.00	12.00	12.00
Refuse	10	40.00	40.00	52.00
Accept	7	28.00	28.00	80.00
Accept strongly	5	20.00	20.00	100.00
Total	25	100.00	100.00	

The schedule (10-4)

The problem 4	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	5	20.00	20.00	20.00
Refuse	14	56.00	56.00	76.00
Accept	3	12.00	12.00	88.00
Accept strongly	3	12.00	12.00	100.00
Total	25	100.00	100.00	

The schedule (10-5)

The problem 5	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	3	12.00	12.00	12.00
Refuse	15	60.00	60.00	72.00
Neutral	4	16.00	16.00	88.00
Accept	2	8.00	8.00	96.00
Accept strongly	1	4.00	4.00	100.00
Total	25	100.00	100.00	

The schedule (10-6)

The problem 6	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	4	16.00	16.00	16.00
Neutral	1	4.00	4.00	20.00
Accept	12	48.00	48.00	68.00
Accept strongly	8	32.00	32.00	100.00
Total	25	100.00	100.00	

The schedule (107)

The problem 7	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	2	8.00	8.00	8.00
Accept	3	12.00	12.00	20.00
Accept strongly	20	80.00	80.00	100.00
Total	25	100.00	100.00	

The schedule (10-8)

The problem 8	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse Strongly	1	4.00	4.00	4.00
Accept	3	12.00	12.00	16.00
Accept strongly	21	84.00	84.00	100.00
Total	25	100.00	100.00	

The schedule (10-9)

The problem 9	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse Strongly	3	12.00	12.00	12.00
Refuse	2	8.00	8.00	20.00
Neutral	1	4.00	4.00	24.00
Accept	6	24.00	24.00	48.00
Accept strongly	13	52.00	52.00	100.00
Total	25	100.00	100.00	

The schedule (10-10)

The problem 10	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	1	4.00	4.00	4.00
Neutral	1	4.00	4.00	8.00
Accept	7	28.00	28.00	36.00
Accept strongly	16	64.00	64.00	100.00
Total	25	100.00	100.00	

The following schedule shows the sort according to relative importance from views of sample responses (25 items):-

The schedule (11)

N	Motive	Sample	Mean	Sort
8	Not to Issue Sustainability Reports Due to the Scarcity and Weakness of Knowledge by Accountants.	25	4.72	1
7	Fear of Bearing the Additional Costs as a Result of the Preparation of Sustainability Reports.	25	4.64	2
10	Failure or Weakness of the Existence of Assurance Services for Sustainability Reports.	25	4.52	3
1	The low awareness level of bank staff of environmental and social issues.	25	4.20	4
6	The weakness of the bank's management look toward the strategic Approach to be Applied.	25	3.96	5
9	Lack of accounting standards obliged to issue sustainability reports.	25	3.96	6
3	The fear of Bank Management that sustainability reports make Incriminating Evidence Within the Legal Accountability.	25	3.04	7
4	Keenness of some members of the Bank's management about the secret factor.	25	2.40	8
2	The fear of Bank Management that sustainability 25 reports make a negative impact on the reputation of the bank.		2.40	9
5	Lack of Confidence of the Bank's Management about the Fact that Sustainability Reporting is a Useful Tool for Stakeholders.	25	2.32	10

Those statistical results will benefit in sorting priorities related problems, when prepare sustainability accounting reports. In terms of testing the reliability of a list of the questionnaire, it turns out that the value of Cronbach's Alpha index is 0.378, which is well regarded in such cases. The researcher used two tests to accept

or refuse the second hypotheses, Sign – Test and Wilcoxon-Test are used. The test show that the problem 2, 3, 4, and 5 consider non significant at level of significance equal 0.05. where the results of Sign-test for these problems are:-

The schedule (12)

Question	N	Below	Equal	Above	P	Median
2	25	19	0	6	0.9980	2.00
3	25	13	0	12	0.6550	2.00
4	25	19	0	6	0.9980	2.00
5	25	18	4	3	0.9999	2.00

Also, Wilcoxon-Test proved to apply the same results, which are corroborated by Sign –Test. Based on the previous statistical analysis of second hypothesis is rejected with the reservation to the problems and difficulties of the four (2-5) and accept existence of other problems and difficulties.

stakeholders towards sustainability accounting reports prepared and published by the Commercial Bank.” Depending on some descriptive measures, frequency distribution and relative frequencies, It can summarize the results as follows:-

c) Results of statistical analysis for the third hypotheses

The third hypotheses states “There is a high level of satisfaction of all parties to the multi-

The schedule (13)

Opinion	N		Mean	Median	Std deviation	Min.	Max.
	valid	missing					
1- I think the need for the bank's management to disclose the three dimensions (environmental, social and economic) within the Sustainability Report	36	0	4.67	5.00	0.962	2	5.00

2- Preparing Sustainability Accounting Reporting is not Necessary, It is Sufficient to Prepare Financial Statements (Profit and Position).	36	0	2.06	2.00	0.475	1	5.00
3-Characteristics of information will Increase Strongly when prepare Sustainability Accounting Reports..	36	0	3.72	4.00	1.003	1	5.00
4-Must be Done to Study the Reactions of Stakeholders on the Contents of the Sustainability Accounting Reports..	36	0	3.94	4.00	1.170	1	5.00
5-The Need for a Vision and Strategy for the Bank Sustainability Accounting Reporting.	36	7	4.14	5.00	1.575	1	5.00

Also, the frequency table for each opinion will be as follows:

The schedule (14-1)

The opinion 1	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse	3	8.3	8.3	8.3
Accept	3	8.3	8.3	16.7
Accept strongly	30	83.3	83.3	100.00
Total	36	100.00	100.00	

The schedule (14-2)

The opinion 2	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse strongly	3	8.3	8.3	8.3
Refuse	28	77.8	77.8	86.1
Nutral	5	13.9	13.9	100.00
Total	36	100.00	100.00	

The schedule (14-3)

The problem 3	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse Strongly	2	5.6	5.6	5.6
Refuse	2	5.6	5.6	11.1
Neutral	6	16.7	16.7	27.8
Accept	20	55.6	55.6	83.3
Accept strongly	6	16.7	16.7	100.0
Total	100	100.0	100.0	

The schedule (14-4)

The problem 4	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse Strongly	1	2.8	2.8	2.8
Refuse	5	13.9	13.9	16.7
Neutral	4	11.1	11.1	27.8
Accept	11	30.6	30.6	58.3
Accept strongly	15	40.7	40.7	100.0
Total	36	100.0	100.0	

The schedule (14-5)

The problem 5	Frequency	Percent	Valid Percent	Cumulative Percent
Refuse Strongly	5	13.9	17.2	17.2
Refuse	1	2.8	3.4	20.7
Accept	2	5.6	6.9	27.6
Accept strongly	21	58.3	72.4	100.0
Total	29	80.6	100.0	
Missing system	7	19.4		
Total	36	100.0		

By analysis the previous statistical results, It can state that the five opinions which must be accepted from stakeholders are:-

1. The disclosure of the three dimensions.
2. The financial statements are not sufficient.
3. Keeping the properties of information.
4. Must study the reactions of stakeholders.

5. Must provide vision and strategy of commercial bank.

The following schedule shows the sort according to relative importance from views of sample responses (36 items):-

The schedule (15)

N	Opinion	Sample	Mean	Sort
1	I think the need for the bank's management to disclose the three dimensions (environmental, social and economic) within the Sustainability Report	36	4.67	1
5	Preparing Sustainability Accounting Reporting is not Necessary, It is Sufficient to Prepare Financial Statements (Profit and Position).	36	4.14	2
4	Characteristics of information will Increase Strongly when prepare Sustainability Accounting Reports..	36	3.94	3
3	Must be Done to Study the Reactions of Stakeholders on the Contents of the Sustainability Accounting 36 Reports..		3.72	4
2	The Need for a Vision and Strategy for the Bank Sustainability Accounting Reporting.	36	2.06	5

By applying Sign-test and Wilcoxon-Test on the previous five opinions, It become clear that the second opinion had refused, the mean was 2.06 only when the level of significance was 0.05.

XI. CONCLUSIONS AND RECOMMENDATIONS

Depending on the literature review, results of field study and the statistical analysis, the researcher can formulate a set of conclusions and recommendations as follows:-

a) Conclusions of Research

1. Sustainability accounting in managerial accounting is used for internal decision making and the creation of new policies that will have an effect on the organization's performance at economic, environmental and social fields. Sustainability Accounting is a tool used by organizations to become more sustainable. Sustainability accounting in managerial accounting tries to contribute in development that meets the needs of the present generation without compromising the ability of

future generations to meet their own needs. The more relevant definition is to concentrate on the maximum limit of economic environment advantages, It mean that the sustainable environment includes three dimensions: (1) Improving the level of welfare. (2) Protect and maintain the integrity of environmental and ecological systems. (3) Achieving social justice in the distribution of resources.

2. Analytical framework of sustainability accounting is important for linking information from different areas. The framework seeks to:
 - a. Integrate the economic, environmental and social dimensions of sustainable development.
 - b. Have sound foundations and to maintain key information needed to improve sustainable development measurements.
 - c. Clarify relationships between different indicators and policies.
3. The conceptual framework of sustainability accounting Includes five main elements:- the goals

of preparing sustainability report are required to achieve the principles must be adhered to, Techniques and methods of measuring and recording to be followed, the requirements of the reporting process, and finally the benefits which are expected from preparing and publishing the sustainability accounting reports.

4. The Sustainability Accounting Standards Board (SASB) was developed in July 2011, It's main goal to formulate a specified separated set of standards for each industry related with preparing sustainability accounting reports. Until April 2014, the Board issued three sets of specified separated standards: health care sector, commercial banking sector and technology & communications sector. The Board states that will issue other eight sets at different sectors.
5. It turned out to complete the conceptual framework for the sustainability accounting reporting, the need to identify the motives of management of commercial banks to issue such reports, identify the problems and difficulties that face the process of preparing and publishing these reports, as well as to know the views of the stakeholders of those reports.
6. The first hypotheses was accepted, thus the rating of movies of preparing sustainability accounting reports depending on the relative importance are: conform with governance requirements, expects environmental and social benefits, makes Improvements in bank competitive advantages, need to adhere to the regulations and legislation, earn the legitimacy of the existence of the bank, interaction with environmental and social issues in society, bank size, make improvements in bank reputation, profitability, investment in environmental and social activities, bank position in shares, pressure of other competitive banks ethical investor, costs accepted, to increase the value of the bank's shares, bank ability to achieve profits, stakeholders need to information and Response to bank marketing activities.
7. The second hypotheses was refused, thus the rating of problems and obstacles of preparing sustainability accounting reports depending on the relative importance are: due to the scarcity and weakness of knowledge by accountants, fear of bearing the additional costs , failure or weakness of the Existence of assurance services, the low awareness level of bank staff, the weakness of the bank's management look toward the strategic approach, lack of accounting standards, make incriminating evidence, make incriminating evidence, a negative impact on the reputation of the bank and lack of confidence of the bank's management.

8. The third hypotheses was accepted, thus the rating of opinions of stockholders around preparing sustainability accounting reports depending on the relative importance are: the need for the bank's management to disclosure, the importance of comparison between the sustainability accounting reports and financial statements, characteristics of information, the Reactions of Stakeholders on the Contents of the reports and the need for a vision and Strategy on these reports,

b) *Recommendations of Research*

1. Management of commercial banks must have vision, mission and strategy for issuing sustainability accounting reports for control of the weaknesses of the internal environment and the face of threats from the external environment on the one hand, and to maximize the benefits from the strength points of internal environment and to invest opportunities from the external environment on the other hand.
2. The need to hone and refine the skills of accountants and strengthen the Continuing Education and the expansion of the training and through the teaching of sustainability accounting. Where should bookkeeping and records sufficient to collect and analyze data, understand and grasp the accounting role in achieving sustainability of the economic unit and the expansion of the management of environmental, social and accounting risks.
3. The researcher recommends the need to assess the economic unit on a comprehensive basis. Besides the financial performance dimension (net income, the rate of return on investment, net value added, residual income, profitability return, assets turnover.....), the sustainability accounting take account other two dimensions (environmental and social). In this context, the intervention of other issues such as new corporate governance, risk management, and strategic management.
4. The researcher recommends the adoption of the idea of Sustainability Accounting Standards Board related with the need for the formulation of standards according to each industry separately. That's where the justification for this is that the performance measurement indicators (Environmental and Social) differ in the majority of the industry to another.
5. The researcher recommends the need to take into account the views of stakeholders on the contents of sustainability accounting report indicators to ensure the representation of all parties contributed.
6. The researcher recommends that the sustainability accounting should be occupied sufficient area within the accounting courses. the requirements of

the conceptual framework (goals, principles, measurement and record tools, reporting, benefits, identify movies, identify the problems and difficulties, and the views of stakeholders) must take enough space within the courses of accounting (Financial Accounting, Managerial Accounting and Auditing).

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APPENDIX

a) Appendix No.1

Group of questions related with identification of bank management movies toward sustainability accounting reporting:-

No.	Question	Relevant result				
		Strongly agree	agree	neutral	refuse	Strongly refuse
1	Sustainability Accounting Reporting Aims to interaction with environmental and Social Issues in society.					
2	Sustainability Accounting Reporting Aims to Earn the Legitimacy of the Existence of the Bank as A National Institution.					
3	Sustainability Accounting Reporting Aims to Increase the value of the Bank's Shares.					
4	The Bank Management expects environmental and Social benefits realization Through the Disclosure of Sustainability Reports.					
5	The Bank Management expects Costs Accepted As a Result of Disclosure of Sustainability Reports.					
6	Issuing Sustainability Reports are in Response to the Need to Adhere to the Regulations and Legislation.					
7	Issuing Sustainability Reports are in Response to the Stakeholders Need to Information.					
8	Issuing Sustainability Reports considers as Response to Bank Marketing Activities for it Services or Products.					
9	Sustainability Accounting Reporting Makes Improvements in Bank Reputation.					
10	Sustainability Accounting Reporting Makes Improvements in Bank Competitive Advantages.					
11	Bank Management Considers Issuing Sustainability Reports as Long Term Investment in Environmental and Social Activities.					
12	There is Strong Correlation Between Issuing Sustainability Reports and Bank Ability to achieve Profits.					
13	There is Strong Correlation Between Issuing Sustainability Reports and Bank Position in Shares Market.					
14	Preparing Sustainability Reports Joins with the Desire of Bank Management as Ethical Investor.					
15	Preparing Sustainability Reports Conform With Governance Requirements.					

16	Sustainability Accounting Reporting Depends on Bank Size.					
17	Sustainability Accounting Reporting Depends on Bank Profitability.					
18	Sustainability Accounting Reporting Depends on The Pressure of other competitive Banks.					

Group of questions related with identification of the problems and difficulties which face bank management during sustainability accounting reporting:-

No.	Question	Relevant result				
		Strongly agree	Agree	Neutral	Refuse	Strongly refuse
1	The low awareness level of bank staff of environmental and social issues.					
2	The fear of Bank Management that sustainability reports make a negative impact on the reputation of the bank.					
3	The fear of Bank Management that sustainability reports make Incriminating Evidence Within the Legal Accountability.					
4	Keenness of some members of the Bank's management about the secret factor.					
5	Lack of Confidence of the Bank's Management about the Fact that Sustainability Reporting is a Useful Tool for Stakeholders.					
6	The weakness of the bank's management look toward the strategic Approach to be Applied.					
7	Fear of Bearing the Additional Costs as a Result of the Preparation of Sustainability Reports.					
8	Not to Issue Sustainability Reports Due to the Scarcity and Weakness of Knowledge by Accountants.					
9	Lack of accounting standards obliged to issue sustainability reports.					
10	Failure or Weakness of the Existence of Assurance Services for Sustain-ability Reports.					

b) Appendix No.2

Group of questions related with stakeholders in Saudi banks to measure the extent of their awareness about the preparation of sustainability reports:-

No.	Question	Relevant result				
		Strongly agree	Agree	Neutral	Refuse	Strongly refuse
1	I think the need for the bank's management to disclose the three dimensions (environmental, social and economic) within the Sustainability Report					
2	Preparing Sustainability Accounting Reporting is not Necessary, It is Sufficient to Prepare Financial Statements (Profit and Position).					

3	Characteristics of information will Increase Strongly when prepare Sustainability Accounting Reports..					
4	Must be Done to Study the Reactions of Stakeholders on the Contents of the Sustainability Accounting Reports..					
5	The Need for a Vision and Strategy for the Bank Sustainability Accounting Reporting.					





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The Financial Collapse of the Enron Corporation and Its Impact in the United States Capital Market

By Prof. Edel Lemus, M.I.B.A

Carlos Albizu University, United States

Abstract- The purpose of this article is to review the collapse of the Enron Corporation and the collapse's effect on the United States financial market. Enron Corporation, the seventh largest company in the United States, misguided its shareholders by reporting \$74 billion profit of which \$43 billion was detected as fraud. Moreover, according to the association of fraud examiners \$2.9 trillion was lost because of employee fraud. For example, as presented by Kieso, Weygandt, and Warfield (2013), in a global survey study that was conducted in 2013, it was reported that 3,000 executives from 54 countries were involved in fraudulent financial reporting. Therefore, the world of accounting is dominated by the top four accounting firms known as (1). PricewaterhouseCoopers (PwC), (2). Deloitte & Touche (DT), (3). Ernst & Young (EY) and (4). KPMG which represent a combined income of \$80 billion.

Keywords: *enron corporation, bankruptcy, securities and exchange commission (sec), generally accepted accounting principles (gaap), sarbanes-oxley act of 2002, section 404, corporate governance, auditing, and economic crime.*

GJMBR-D Classification : *JEL Code: M49*



Strictly as per the compliance and regulations of:



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I. INTRODUCTION

This research paper will introduce seven parts in the literature review as it relates to the collapse of Enron Corporation. The three major violations under Generally Accepted Accounting Principles (GAAP) that preceded the fall of the Enron Corporation were: (1). The off-balance sheet arrangements, (2). The role of mark-to-market, and (3). The manipulation of derivatives. In 1977 the United States Congress passed the Foreign Corrupt Practices Act (FCPA) to prevent major financial irregularities in the market such as corporate bribery, violation of an accounting system, and so forth. By the mid-1980s, the United States Government committed to examine all failures and fraud in the financial market. However, in 2002 the United States Congress passed the Sarbanes-Oxley Act of 2002 to prevent accounting scandals such as Enron, Arthur Andersen, and Tyco. The purpose of the act was to reestablish the financial trust and confidence of investors among major publicly traded companies in the United States market (Warren, Reeve, & Duchac, 2014).

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The United States Securities and Exchange Commission (SEC), after adopting the Sarbanes-Oxley Act of 2002, introduced 11 chapters or provisions by reshaping the accounting system and designing unique sets of rules and regulations. Section 404 under the Sarbanes-Oxley Act of 2002 requires management and independent auditors to report their findings with accuracy and reliability in the unqualified opinion report. Since the implementation of the Sarbanes-Oxley Act of 2002 information technology (IT) has provided high relevancy and compliance in the accounting industry. Also, the types of services that are considered unlawful are price fixing, inappropriate use of the tax law practices for money laundering off-shore, and violation of the laws and social norms in society. Consequently, the prohibitions set by Sarbanes-Oxley (SOX) impacted not only the auditors but also professional accountants.

II. LITERATURE REVIEW

a) *The Historical Background of the Enron Scandal*

In corporate American history the most famous corporation to use creative accounting was the Enron Corporation. In 1985 the Enron Corporation was created by the acquisition and merger of two natural gas companies. The Enron Corporation began to expand its line of operations and services in different sectors and as a result acquired utility plants in Brazil, India, the United States, and most importantly the United Kingdom by taking advantage of the deregulated market in the natural gas and electricity industry. For example, Enron Corporation, from a simple energy trading strategy, decided to shift financial directions to trade weather derivatives. Then in 1999 the internet-based trading platform was introduced which gave the Enron Corporation more leverage to trade internet in metals, energy, and woods products. By 2000 the Enron Corporation was the seventh largest corporation by growth revenue in the gas and utility market in the United States territory; however, by October, 2001 the Enron Corporation began to experience financial difficulties which caught investors, who were unaware of Enron's financial strategy manipulation, by surprise. Consequently, on December 2, 2001 the Enron Corporation decided to file bankruptcy. The unprecedented financial events of the Enron

Corporation provided proof that major organizations in the gas and utility industry could fully manipulate a firm's financial statements (Madura, 2015).

PART I- Enron's Three Major Violations under Generally Accepted Accounting Principles (GAAP)

b) Enron's Off-Balance Sheet Method

The three major violations under Generally Accepted Accounting Principles (GAAP) that preceded the collapse of the Enron Corporation were: (1). The off-balance sheet arrangements, (2). The role of mark-to-market, and (3). The manipulation of derivatives. The creation of the off-balance sheet method (OBSEs) served its specific purpose in Enron's corporate accounting scandal. In addition, the specific purpose of the Enron Corporation (as cited in e.g., Anson 1999; Evans, 1996) was to increase financial flexibility, decrease the cost of borrowing from creditors, reduce the tax portion, maximize profitability, and adequately improve the financial health of the company as noted by (Angbazo, 1997; James, 1989; Shevlin, 1987). Moreover, the legitimate financial purpose of Enron's utilization of the off-balance sheet was to hide losses and debt from auditors, investors, financial analysts, and regulators. Furthermore, in November, 2001, the Enron Corporation announced plans to consolidate the financial statements by restating \$586 million in earnings prior to the period by following the accounting principles of hiding losses and debt under the applicability of the off-balance sheet method as mentioned in the research work of (Kahn, 2002; Henry, 2002). The Wall Street Journal then published seven negative articles concerning the way Enron Corporation was using the off-balance sheet method. Therefore, the Enron Corporation's failure to disclose billions of dollars in debt held by the off-balance sheets (OBSEs) prompted auditors to require additional disclosure in the financial statements (Chandra, Ettredge, & Stone, 2006).

c) Enron's Mark-to-Market Method

The mark-to-market method and the special purpose entity were important to the Enron Corporation as an accounting fraud principle. Additionally, the Enron Corporation was subject to external governance because Enron had to report to organizations such as government regulators, private entities, audit analysts in the equity sector, and some other agencies. Moreover, Jeffrey Skilling and Andrew Fastow were the pioneers in adopting the mark-to-market method in the Enron Corporation by pumping up the stock price and covering major losses while continuing to attract major capital investment, which was both illegal and immoral. As a result, the U.S. Securities and Exchange Commission (SEC) allowed the Enron Corporation to use the mark-to-market accounting method. For example, Enron's unrealized gains (as cited in Thomas, 2002) were \$1.41 billion reported as a pretax profit in

2000 and one-third was reported as a pretax profit in 1999. Therefore, one of the major causes of Enron's fall was the U.S. Securities and Exchange Commission (SEC) allowing Enron Corporation to use at best capacity the mark-to-market accounting method (Li, 2010).

d) Enron's Derivatives Manipulation

The third major violation of the Enron Corporation under Generally Accepted Accounting Principles (GAAP) was the manipulation of derivatives which increased from \$1.8 billion to \$10.5 billion. The management team of Enron utilized specific financial tactics to hide losses in the derivative section; furthermore, investment and commercial banks advised investors about the underwriting problem at Enron. For example, the three most important credit agencies known as Moody's, Standard & Poor's, and Fitch/IBC failed to disclose the financial trouble at Enron because Enron paid the three credit agencies substantial monies by not properly advising the investors at Enron of such existing financial problems. Another example, ESM Government Securities created large receivable fraud by hiding \$400 million in the balance sheet. Therefore, the law firms that represented Enron made a big profit from derivatives contract (Albrecht, Albrecht, Dolan, & Malagueno, 2008).

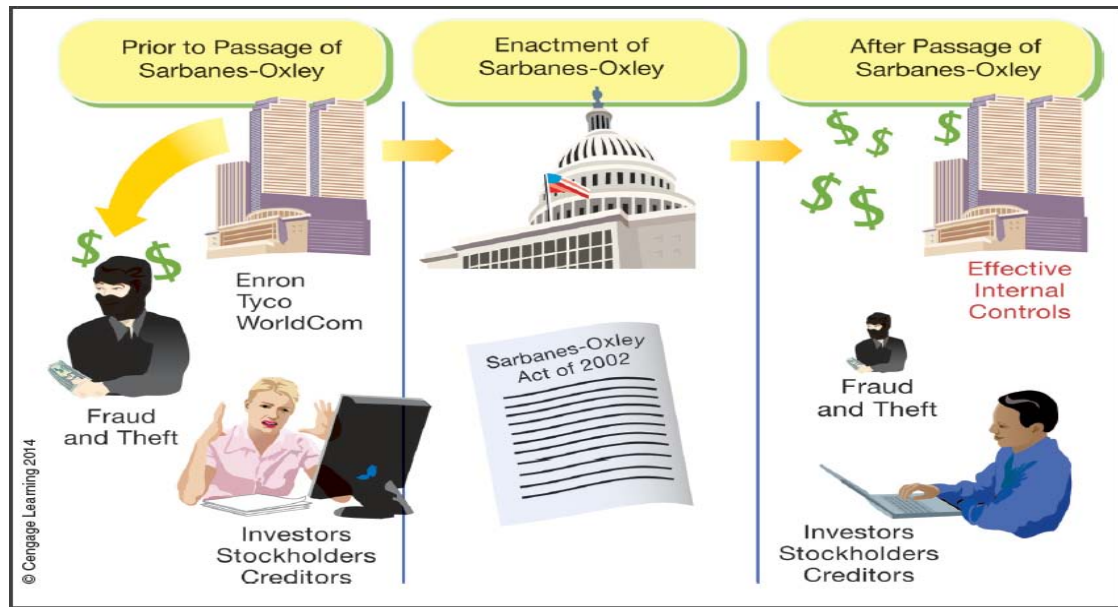
Derivatives are complex financial contracts that are represented under (1) price of commodities, (2) stocks, and (3) bonds. In addition, the derivatives were managed by sophisticated investors in the market and the manipulation occurred internally and externally on Enron's organizational environment by trading big portions of revenues. For example, in 2000, Enron reported more than \$16 billion in gain from derivatives. Additionally, since 1997, Enron traders had planned out the manipulation of derivatives in the utility financial market industry with the intent to hide losses ("Derivatives," 2002).

PART II – The Purpose of the Sarbanes-Oxley Act of 2002

The purpose of the Sarbanes-Oxley Act of 2002, which was passed by the United States Congress, was to reestablish the financial confidence of stockholders, creditors, and other investors that lost billions of dollars in the market. The main purpose of the United States government passing the bill was to create confidence and financial trust among major publicly traded companies in the market. Furthermore, the Sarbanes-Oxley Act of 2002 expressed the importance of assessing the financial reports of all companies. As a result, Sarbanes-Oxley Act of 2002 promulgates three important internal control processes which are (1). Safeguard the assets, (2). The information must be processed accurately, and (3). Comply with the laws and regulations. Therefore, this act requires publicly

traded companies and their accountants to comply with the effectiveness of the internal control system of Sarbanes-Oxley Act of 2002 (Warren, Reeve, & Duchac, 2014).

Sarbanes-Oxley Act of 2002



(Warren, Reeve, & Duchac, 2014, p. 361)

The above diagram demonstrates the three phases of the Sarbanes-Oxley Act of 2002 and emphasizes the importance of maintaining confidential and public trust in the financial market.

The Sarbanes-Oxley Act of 2002 improves the accuracy and reliability of corporate disclosure in the United States market. In addition, the Senate and House of Representatives of the United States of America (U.S. Congress, 2002) approved the provision of section 404, the most important section of the act, under the Sarbanes-Oxley Act of 2002 whereby both management and auditors are required to comply with the internal control system by providing clarity to financial statements. For example, the researchers indicate that the Sarbanes-Oxley Act of 2002 was passed in an effort to overcome accounting irregularities and the weak auditing standard procedures set in place due to the scandal of the Enron Corporation. However, the research work of Radebaugh, Gray, and Black (2006) and Stovall (2008) indicate that the Sarbanes-Oxley Act of 2002 establishes very strict financial reporting guidance for publicly traded companies in the United States as well for foreign firms listed on the New York Stock Exchange Market (NYSE). Therefore, the Securities and Exchange Commission (SEC) required publicly traded companies, with a flow capital of \$75 million, to comply with the Sarbanes-Oxley Act of 2002 and also Section 404 as part of the provision of the act (Chan, Jacob, Lee, & Seow, 2012).

Since the 1300s regulators have responded to risk management and unprecedented fraudulent acts in

the financial market. In addition, approximately 4,000 years ago future contracts were implemented to trade goods in the international market with India being one of the pioneers using them. Then in the early 1800s the United States began to trade goods by using future contracts. As a result, in the 1970s, the United States encountered a crisis with the monetary gold standard by witnessing high inflation by bargaining power during the political conflict between Egypt and Israel in 1973. Consequently, in 1977 the United States Congress passed the Foreign Corrupt Practices Act (FCPA) to prevent major financial irregularities in the market such as corporate bribery, violation of accounting systems, and so forth. By the mid-1980s the United States Government committed to examine all failures and fraud in the financial market. However, in 2002 the United States Congress passed the Sarbanes-Oxley Act of 2002 to prevent accounting scandals such as Enron, Arthur Andersen, and Tyco (Brigham, & Ehrhardt, 2014).

The Ten Largest Bankruptcies Since 1980 in (Billions of Dollars)

TABLE 24-1

The Ten Largest Bankruptcies Since 1980 (Billions of Dollars)

Company	Business	Assets	Date
Lehman Brothers Holdings Inc.	Investment banking	\$691.1	September 15, 2008
Washington Mutual Inc.	Financial services	327.9	September 26, 2008
WorldCom, Inc.	Telecommunications	103.9	July 21, 2002
General Motors Corporation	Auto manufacturing	91.0	June 1, 2009
CIT Group Inc.	Financial services	80.4	November 1, 2009
Enron Corp.	Energy trading	63.4	December 2, 2001
Conseco Inc.	Financial services	61.4	December 17, 2002
MF Global Holdings Ltd.	Commodities	40.5	October 31, 2011
Chrysler LLC	Auto manufacturing	39.3	April 30, 2009
Thornburg Mortgage Inc.	Residential mortgage	36.5	May 1, 2009

Source: **BankruptcyData.com**, a division of New Generation Research, July 2012.

(Brigham, & Ehrhardt, 2014, p. 945).

The above graph shows, since 1980, the top ten largest bankruptcies in United States history in billions of dollars.

PART III – Sarbanes-Oxley Act of 2002 and its 11 Major Chapters or Provisions

As indicated by Brigham and Ehrhardt (2014), the 11 chapters or provisions of the Sarbanes-Oxley Act of 2002 brought about a new set of rules and regulations to auditors, investor analysts, CEOs, CFOs, and banks conducting business overseas. These 11 chapters or provisions are designed to ensure that (1). Audit independence is obtained from publicly traded companies, (2). The board of auditors needs to indicate that the financial statements are accurate, (3). The audit committee will be independent from management, (4). The financial analysts have a degree of independency as they critically analyze the financial statements, and (5). All publicly traded companies should release all financial information as it relates to the company's financial health position in the market. Moreover, the 11 chapters or provisions are summarized as follows.

Title I – Deals with the ethical standards established by the Public Company Accounting Oversight Board (PCAOB) to oversee the quality control of auditors.

Title II – Grant authority to the auditors' to be independent from the company that the auditors are auditing. The main objective of this title is to avoid financial incentive to auditors.

Title III – The audit committee must be composed of independent members. For example, Section 302 under the Sarbanes-Oxley Act of 2002 requires CEOs and CFOs to revise financial statements on a quarterly and yearly basis, otherwise penalties would apply such as a fine of \$5 million or up to 20 years in prison because of misleading financial information on the financial

statements. Also, Section 304 under the Sarbanes-Oxley Act of 2002 deals with an executive's reimbursement equity capital.

Title IV – Indicate the importance of understanding Sections 401, 404, and 409. As a result, Section 401 deals directly with the disclosure on off-balance sheet transactions. Section 404 in this section evaluates the internal control system of the financial statements by following management's principles. Section 409 requires the company to disclose any material changes in the financial statements and, as well, prohibits the number of loans that can be extended to executives.

Title V – Deals with the existing relationship between the financial analyst and investment banks requiring the disclosure of any conflict of interest in the stocks recommended.

Title VI and VII – Deals with the technical budgetary aspect of the SEC.

Title VIII – A whistle-blower reporting fraudulent activities is protected under this title and anyone destroying an audit record will face severe legal consequences and penalties for lying.

Title IX – Deals with white-collar crimes and Section 902 initiates the enforcement investigation process of the same.

Title X – The CEO is accountable for signing the company's federal income tax return.

Title XI – If directors from a company are obstructing the investigation, the SEC has full authority to remove them from their current position if the directors committed fraud.

The U.S. Securities and Exchange Commission (SEC), after the adoption of the Sarbanes-Oxley Act of

2002, introduced 11 chapters or provisions by reshaping the accounting system and by designing a unique set of rules and regulations. In addition, the main objective of the U.S. Securities and Exchange Commission (SEC), with the adoption of the 11 chapters or provisions, essentially mandated companies to have their financial books audited by independent auditors by providing explicit responsibility and governance in terms of financial reliability and accuracy within the organization. Moreover, the independent auditor opinion must be reliable and fairly evaluated by not violating the rules under generally accepted accounting principles (GAAP). Furthermore, investors and other users of the financial statements can feel confident about the independent audit conducted by the auditors. Therefore, the 11 chapters or provisions under the Sarbanes-Oxley Act of 2002 reshaped the sustainability of financial reporting valuation analysis in the accounting industry (Wahlen, Baginski, & Bradshaw, 2015).

PART IV – The Requirements Concerning Internal Controls for Public Companies

Section 404 under the Sarbanes-Oxley Act of 2002 requires management and independent auditors to report their findings with accuracy and reliability. In addition, regulators and publicly traded companies (as cited in Baldwin and Yoo, 2005, GAO, 2006, Grothe, Pham and Saban, 2006, Grothe, Goodwin, landera, Laurion and Freeland, 2007a, Grothe, Saban, Plachecki, Lee and Post, 2007b, Audit Analytics, 2007, PCAOB, 2007) have devoted sufficient time to studying the sustainability of section 404. Moreover, Section 404's internal control system (as cited in Plumlee, & Yohn, 2010) is likely expected to improve the financial reporting system by utilizing three accounting measurements which are (1). Examine the internal control weakness within the company, (2). Specify the type of internal control problem, and (3). Indicate the number of deficiencies by suggesting the impact in the financial restatements. However, Section 404 under the Sarbanes-Oxley Act of 2002 (as cited in PCAOB, 2004) offers an unparalleled effective internal control system. For instance, the internal accounting control system of Section 404 helps to prevent poor financial reporting and most importantly detects fraud. As a result, there is an existing relationship between the internal accounting control system and financial restatement because once a company restates the earnings the material weakness should be disclosed properly in the financial records. Therefore, empirical research studies suggest (as cited in Grothe, Goodwin, landera, Laurion and Freeland (2007a) and Grothe, Saban, Plachecki, Lee and Post (2007b), when an auditor is examining the internal accounting control system of a company he or she needs to analyze the firm's internal accounting system problem, specify the nature of the internal existing problem, and examine the relationship between the

internal control weakness and financial restatements (Wang, 2013).

The seventh largest corporation in the United States was the Enron Corporation that misguided its shareholders by reporting \$74 billion which \$43 billion was detected as fraud. In addition, the internal accounting control system of the Enron Corporation still is a controversial financial subject. Moreover, Enron's poor internal accounting control system was guided by insufficient accounting resources which attributed to several financial outcomes and which are (1).Poor policies of revenue recognition, (2).Not appropriate segregation of accounting duties, (3).The lack of financial reporting policies and process, and (4).The inappropriate method of reconciling Enron's bank account. Furthermore, it is argued that after the fall of Enron the compliance costs of internal control systems with the largest auditing firm have increased over time. The SOX cost of a compliance internal control system is \$3.5 million. In audit fees, Varian's reported in 2010 \$51.1 million. The market of an average capitalization of sample companies is \$6.4 billion. However, the market capitalization of Apple Inc. in 2011 was \$354.4 billion. Therefore, in order to have a solid internal accounting control system a company needs to invest in resources by hiring more talented employees, qualified internal auditors, and consultants (Peary, Karim, Suh, Strickland, & Carter, 2013).

The main objectives of a strong internal control system is to (1) safeguard the company's assets, (2) report accurate business information, and (3) comply with the law and regulations of generally accepted accounting principles (GAAP). In addition, since the fraudulent event of the Enron Corporation, employee fraud has been one of the top priorities in the publicly traded companies internal accounting control system. Moreover, according to the association of fraud examiners \$2.9 trillion is lost on employee fraud. Furthermore, accurate financial reporting matters to private and publicly traded companies because businesses must comply with existing rules and regulations and comply with financial reporting standards. For example, researchers suggest five important elements on the internal control system and these are "(1) control environment, (2) risk assessment, (3) control procedures, (4) monitoring, and (5) information and communication" (Warren, Reeve, & Duchac, 2014, p.362 & 363). On the other hand, the limitations of the internal control system are to (1) control the human elements, and (2) recognize the internal cost process by exceeding its benefits. Therefore, an internal control system is sustain by three elements (1).Risk assessment, (2).Control procedures, and (3).Monitoring (Warren, Reeve, & Duchac, 2014).

PART V – What information technology (IT) should be doing to ensure compliance with the Sarbanes-Oxley Act of 2002

Since the implementation of the Sarbanes-Oxley Act of 2002 information technology (IT) has provided the highest relevance and compliance complying with sections 302, 404, 409, and 802 from the Sarbanes-Oxley Act of 2002 as noted by (Brown and Nasuti 2002; Garcia 2004; Weidenmier and Ramamoorti, 2006). Moreover, executives in the organization such as CEOs, CFOs, CIOs, employees and managers (as cited in Kaarst- Brown and Kelly, 2005) should comply with the Sarbanes-Oxley Act of 2002 by providing compliance and relevance in the financial statements. The first information technology (IT) control system that existed was under ISO 17799 as noted by Harris (2006),

because the organization needed to ask how effectively organizations managed the company's control system and complied with corporate governance of the COSO model. The second information technology (IT) control system embraced the COSO and COBIT models in how well the organization monitored the internal information as illustrated in the research work of Greenfield, 2007, and von Solms, (2005), by implementing a security information system. The third information technology (IT) control system consisted in mapping a compliance guidance of 124 components. Therefore, the suggested information technology (IT) model under ISO 17799 brought relevance and reliability to the financial statements by complying with the Sarbanes-Oxley Act of 2002 (Wallace, Lin, & Cefaratti, 2011).

TABLE 10
Count of Significantly Different Controls Based on Presence of Training/Involvement

Item	Count of Significantly Different Controls ^a
Our auditors have received IT training.	35
Our organization has IT employees who are involved with Sarbanes-Oxley compliance activities.	55
Our IT personnel have received Sarbanes-Oxley compliance training.	65

^a This count represents the number of controls that were significantly different for participants who indicated their organizations provided training/involvement ("strongly agree" or "agree") versus those who did not provide training/involvement ("disagree" or "strongly disagree").

(Wallace, Lin, & Cefaratti, 2011 p. 201).

The above table shows the importance of employee training on the Sarbanes-Oxley Act of 2002 activities and compliance within the organization. For example, 60% shows that employees were trained on

Sarbanes-Oxley (SOX) and 50% were involved with the organization compliance activity (Wallace, Lin, & Cefaratti, 2011).

TABLE 11
Regression Results for Achieving SOX Compliance (Public Companies Only)

Variable Description	B	Std. Error	t	Sig.
Constant	0.946	0.125	7.545	0.000
Our organization has IT employees who are involved with Sarbanes-Oxley compliance activities.	0.172	0.054	3.187	0.002
Our auditors have received IT training.	0.083	0.044	1.894	0.059
Our IT personnel have received Sarbanes-Oxley compliance training.	0.109	0.047	2.340	0.020
Adjusted R ² = 0.126.				

(Wallace, Lin, & Cefaratti, 2011 p. 201).

The above table demonstrates the significant relevance and importance of training organization employees under the Sarbanes-Oxley Act of 2002 and building a better accounting control system (Wallace, Lin, & Cefaratti, 2011).

According to Muglia (2013), as an organization continues to experience rapid growth in the financial market, the information technology (IT) team should test and control the company's internal control system. The

researcher suggests five applicable steps concerning internal control systems when complying with the Sarbanes-Oxley Act of 2002. The first step, review and test the applicable information system. The second step, the internal auditor understands the organization's corporate governance and information technology (IT) compliance rules with Sarbanes-Oxley (SOX). The third step, revises the control system narratives. The fourth step consists in analyzing Sarbanes-Oxley (SOX) tools.

The fifth step assesses the control formality of IT testing. Therefore, the five steps mentioned previously will help the internal and external auditors to follow the information technology (IT) guidance of Sarbanes-Oxley (SOX) (Muglia, 2013).

PART VI – The Types of Services Considered Unlawful if provided to a Publicly Held Company by its Auditors

The types of services considered unlawful are price fixing, inappropriate use of the tax law practices of

money laundering off-shore, and violation of the laws and social norms in society. In addition, the world of accounting is dominated by four top accounting firms and represents a combined income of \$80 billion. For example, the table shows the existing relationship between global fees and operations.

Firm	Global fees		Operations	
	US\$bn	Employees	Countries	Offices
PricewaterhouseCoopers ^a	25.2	147,000	150	766
Deloitte & Touche ^b	20.0	135,000	99	670
Ernst & Young ^b	18.4	114,000	140	700
KPMG ^b	16.9	113,000	148	717
Grant Thornton ^a	2.8	22,000	113	521

Table I.
Accountancy firm income and size

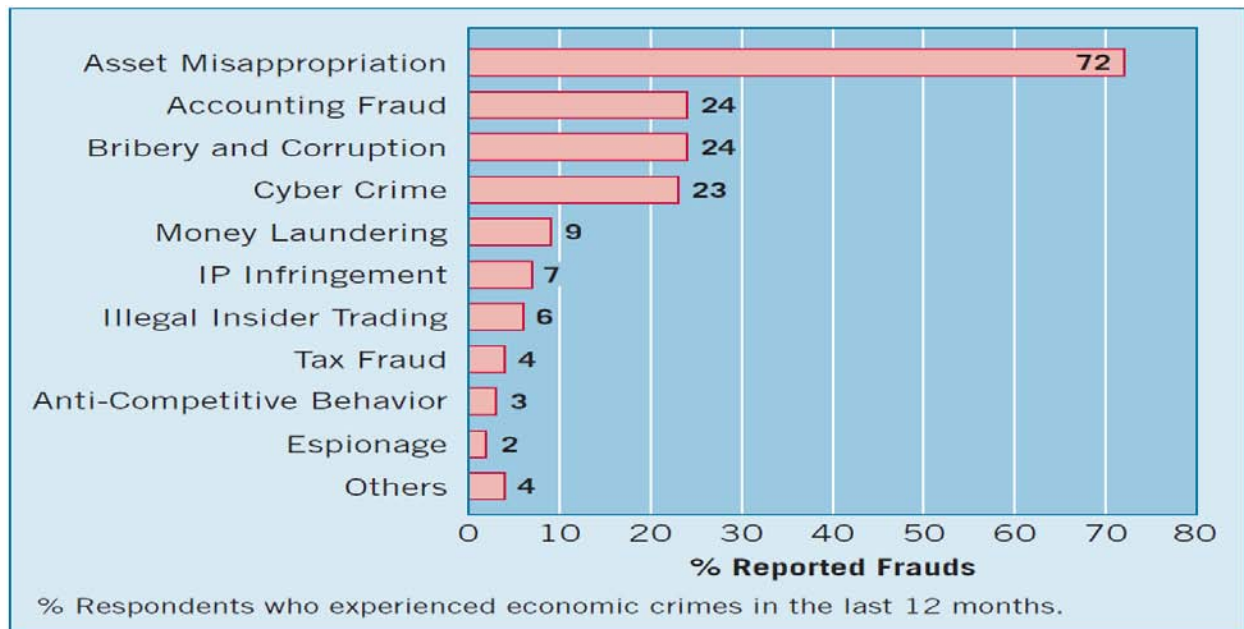
Notes: ^a 2007 annual review; ^b 2006 annual reviews; Information as per firm web sites

(Sikka, 2008, p. 269).

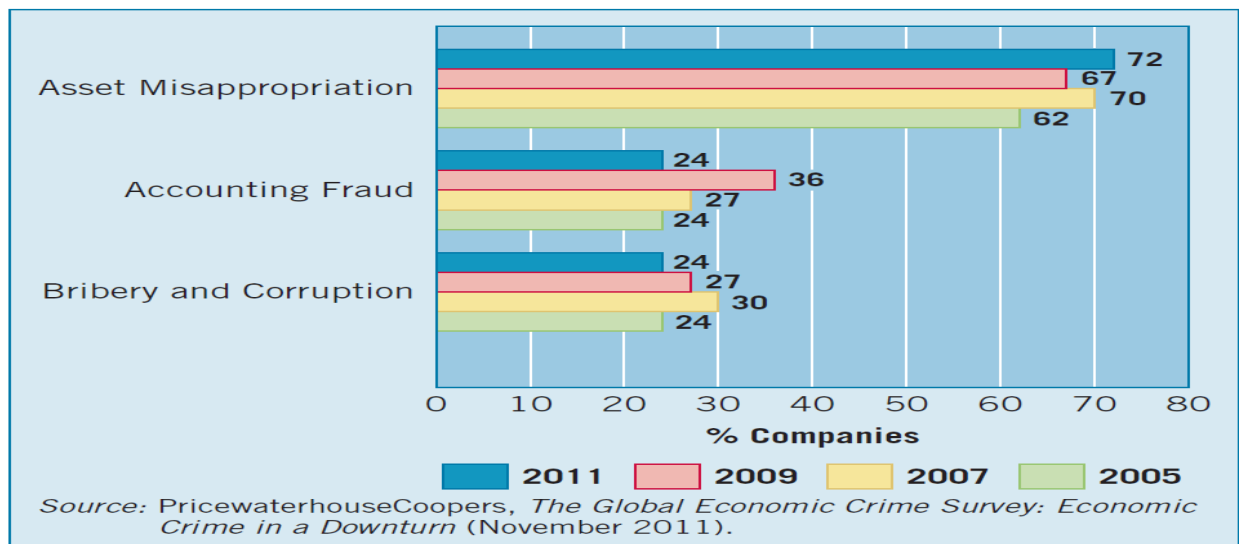
Moreover, the researcher argues throughout the research study that external auditors are exposed to predatory practices in the financial market. Furthermore, little attention has been given to the enterprise production audit. In 1999, PricewaterhouseCoopers (PwC) violated the U.S. Securities and Exchange Commission (SEC) rules and regulations and a fine of \$2.5 million was imposed. By 2002, the U.S. Securities and Exchange Commission (SEC) decided to hit PricewaterhouseCoopers (PwC) with a fine of \$5 million because the auditors violated the independence rules and embarked into the unknown arena by arranging clients and auditors fees. The U.S. Securities and Exchange Commission (SEC) fined Ernst & Young (EY) for \$1.7 billion because of the joint marketing with People Soft and so sales were mainly driven by profit ignoring the auditor privilege within the organization. Then in 2003 the former partner of Ernst & Young (EY) was arrested because falsifying and altering the financial statement records equates lying to the SEC. In the case of KPMG, the U.S. Securities and Exchange Commission (SEC) fined the accounting firm for \$22 million because KPMG failed to disclose properly Xerox's accounting record and the audit results. In 2005, the U.S. Securities and Exchange Commission (SEC) fined Deloitte & Touche (DT) in the amount \$50 million because Deloitte & Touche (DT) failed to detect the massive financial fraud conducted by the Adelphia Communication Corporation in their accounting records. Therefore, it can be concluded, that the unlawful services began in the accounting industry by the top

four accounting firms as indicated in the previous graph (Sikka, 2008).

The rapid pace of economic crime continues to strengthen around the globe. As predicated by Kieso, Weygandt, and Warfield (2013), in a global survey study that was conducted in 2013 it was reported that 3,000 executives from 54 countries were involved in fraudulent financial reporting. The graphs depicted below show the results of specific areas of fraudulent financial reporting and the reported fraud trends.



(Kieso, Weygandt, & Warfield, 2013, p. 1517).



(Kieso, Weygandt, & Warfield, 2013, p. 1518).

PART VII – Sarbanes-Oxley Act (SOX) and The Broader Impact of The Act on Auditors

In 2002, the bill of the Sarbanes-Oxley Act of 2002 was signed into law and set conditions for auditors by essentially viewing the conflict of interest of auditors' consulting services. In addition, the Sarbanes-Oxley Act of 2002 prohibited a number of services including:

- * Bookkeeping or other services related to accounting records or financial statements of the audit client;
- * Financial information systems design and implementation, appraisal or valuation services; fairness opinions, or contribution-in-kind reports;
- * Actuarial services;
- * Internal audit outsourcing services;
- * Management functions of human resources;

- * Broker-dealer or investment advisor services; or investment banking services;

- * Legal services and expert services unrelated to the audit; and any other service that the new Public Company Accounting Oversight Board determines, by regulation, is impermissible (Thompson, & Lang, 2003, p.9).

Furthermore, professional accountants mentioned that setting the above seven prohibitions under the Sarbanes-Oxley Act of 2002 will undermine the audit effectiveness of auditors in the accounting profession. Therefore, the prohibitions set by Sarbanes-Oxley (SOX) impacted not only auditors but professional accountants as well (Thompson, & Lange, 2003).

The main objective of the Sarbanes-Oxley Act of 2002 was to regain the investors' confidence in the market by enhancing and improving the transparency of the financial statement disclosure. In addition, Section 404 under the Sarbanes-Oxley Act of 2002 mandates auditors to assess the internal control system. Moreover, since the adoption of the Sarbanes-Oxley Act of 2002 audit fees have increased substantially. For example, in 2003 to 2004 (as cited in Eldrige, & Kealy, 2005), audit fees increased to \$2.3 million. Furthermore, by 2004 Carney (2006) noted that accounting and legal fees increased by 62%. Therefore, since the adoption of the Sarbanes-Oxley Act of 2002, auditors and publicly traded companies have experienced a high cost of compliance in the financial market among economies of scale (Kaserer, Mettler, & Obernberger, 2011).

III. CONCLUSION

In conclusion, the unprecedented financial event of the Enron Corporation demonstrated that major corporate organizations in the gas and utility industry were manipulating the company's financial statements. In addition, the implementation of the Sarbanes-Oxley Act of 2002 helped align and reshape publicly traded companies financial reporting systems. Moreover, the U.S. Securities and Exchange Commission (SEC) required publicly traded companies with a flow capital of \$75 million to comply with the Sarbanes-Oxley Act of 2002. Furthermore, the SOX cost of compliance internal control system is \$3.5 million. Therefore, since the adoption of the Sarbanes-Oxley Act of 2002, auditors and publicly traded companies have experienced a high cost of compliance in the financial market among economies of scale. Recommendation for Future Studies

The author of this article suggests that the following aspects should be considered for future studies when examining the collapse of the Enron Corporation:

1. Educators in the higher education arena specialized in accounting studies should align in their course core curriculum the ethical aspect of the 11 provisions of the Sarbanes-Oxley Act of 2002 and the interpretation of corporate governance.
2. The U.S. Securities and Exchange Commission (SEC) should examine the compliance level of the top four accounting firms with the Sarbanes-Oxley Act of 2002.
3. The top 500 publicly traded companies trading in the New York Stock Exchange Market (NYSE) should consider training their employees on Sarbanes-Oxley (SOX).
4. Auditors and Certified Public Accountants (CPAs) need to understand the existing relationship between economic crime strengthening around the world and the ten largest bankruptcies since 1980.
5. The attitude of management toward structuring the organization's capital and the internal control

system mandated by Section 404 under the Sarbanes-Oxley Act of 2002.

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Target Costing and Performance of Manufacturing Industry in South-Western Nigeria

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Abstract- This research work seeks to explore the extent of Target Costing system adoption and implementation by manufacturing industry in South-Western Nigeria and the impact on their performance. In the research work, performance was defined in terms of profitability, Return on Capital Employed and reduction in the cost of production. The study adopted the survey research method, using structured questionnaire to collect data from the sample data group which represents all manufacturing firms in South Western Nigeria listed on the Nigerian Stock Exchange as at 31st December 2013. A total of 282 firms were included in the study. Reliability test with Cronbach's Alpha of 0.88 was obtained using the ordinary least square and t-test methods. The results showed that the level of adoption and application of target costing by manufacturing industry in South Western Nigeria is low. However, the findings also showed that there is a strong positive relationship between adoption of Target costing and of improvement in Return on Investment and reduction of cost.

Keywords: *target costing, competition, performance and profitability.*

GJMBR-D Classification : *JEL Code: M49, M40*



TARGETCOSTING ANDPERFORMANCEOFMANUFACTURINGINDUSTRYINSOUTH-WESTERNNIGERIA

Strictly as per the compliance and regulations of:



Target Costing and Performance of Manufacturing Industry in South-Western Nigeria

Lawrence Imeokparia^α & Sanusi Adebisi^ο

Abstract- This research work seeks to explore the extent of Target Costing system adoption and implementation by manufacturing industry in South-Western Nigeria and the impact on their performance. In the research work, performance was defined in terms of profitability, Return on Capital Employed and reduction in the cost of production. The study adopted the survey research method, using structured questionnaire to collect data from the sample data group which represents all manufacturing firms in South Western Nigeria listed on the Nigerian Stock Exchange as at 31st December 2013. A total of 282 firms were included in the study. Reliability test with Cronbach's Alpha of 0.88 was obtained using the ordinary least square and t-test methods. The results showed that the level of adoption and application of target costing by manufacturing industry in South Western Nigeria is low. However, the findings also showed that there is a strong positive relationship between adoption of Target costing and of improvement in Return on Investment and reduction of cost.

Keywords: target costing, competition, performance and profitability.

I. INTRODUCTION

The changes in the business environment in Nigeria occasioned by merger, acquisition and consolidation of many businesses within the manufacturing industry have brought about changes in the scope and size of many firms. Most large manufacturing firms in Nigeria benefit from economies of scale and therefore are able to charge lower prices. However, according to Ellram (2000), Lockamy & Smith (2000), and Shank & Fisher (1999), target costing may serve as a solution when developing new products, minimizing costs through optimal use of all resources along with entire supply chain. Ahmed, Cullen & Dunlop (1997) argue that the aim of target costing is to look at all possible ideas of cost reduction when designing a new product. In the same vein, Pierce (2002) states that the target costing process require a comprehensive information system and cross functional involvement.

II. OBJECTIVES OF THE STUDY

The objective of this research work is primarily to determine the level of the adoption and

implementation of target costing by manufacturing industries in South-Western Nigeria. Therefore, the study will also determine the impact of target costing on the overall performance of the manufacturing industry in South-Western Nigeria in terms of Return on Capital Employed, Profitability and cost reduction.

III. DEVELOPMENT OF THE HYPOTHESIS

The following hypotheses will be tested:

Hypothesis 1:

Target costing systems have not been significantly adopted by manufacturing companies in South Western Nigeria.

Hypothesis 2:

There is no significant relationship between the adoption and application of target costing and cost reductions by manufacturing companies in South-Western Nigeria.

Hypothesis 3:

There is no significant association between the extent of the adoption of target costing and improvement of financial performance by manufacturing companies in South-Western Nigeria.

IV. REVIEW OF LITERATURE

This paper adds to the literature on what target costing is- theoretical definitions offer diverging views as to whether it is a tool, or somewhat a process. The eclectic review was also related to the reasons for, the process and the goals of target costing. The concepts of value engineering and management accounting were also given an analogous relation to the concept. Extant literatures were also reviewed.

Target costing is a cost management tool for minimizing the general cost of a product over its product life cycle (Jalaei, 2012). It is basically a product development process that manipulates equations and develops costs based on prices, and then works backward to design the product and then the production process (Fridh & Borgernas, 2003). A distinguishing factor between the above definitions is that the former defines target costing as a tool, while the latter harangued the concept as a process. Hamada & Monden (1991) saw it as a dual process of planning a product that meets the customer's needs which

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establishes the target cost through the sales price and profit margin and also of achieving target cost by using value engineering and an assessment of such targeted costs with achieved costs; this is done by setting sets the target cost by subtracting the target profit margin from the target price and firm determines the target selling price at which a product can be sold in the marketplace (Kaur, 2014). Costs should be should conducted to a point in which the cost does not surpass the predetermined sales price and the lowest amount possible of expected profit (Sarokolaei & Rahimipoor, 2013).

This research defines Target costing as essentially a cost management technique which minimizes cost based on the difference between the selling price and target profit margin of a product in order to be in a better competitive position in the marketplace. The framework is based on the ever-sporadic and competitive Nigerian business environment; fundamentally, the manufacturing sector.

The Nigerian business environment is highly unpredictable, erratic and impulsive; this calls for a rational technique to be used by the management accountant. Target costing serves as one of the strategic cost management approaches better suited to brace a company's competitiveness in meeting the erratic nature of today's business and the challenges that follow (Bonzemba & Okano, 1998); it is one of the main tools to assisting manufacturers to be globally competitive (Kumar, 2014); this is because in this price-based target costing, a firm sets a target cost through comparison of various competitive products ((Helms, Ettkin, Baxter, & Gordon, 2005). Target costing is concerned with simultaneously achieving a target cost alongside the planning, development and detailed design of new products (Tani, 1995). It is for these reasons that the effects of target costing in a competitive business environment cannot be over-emphasized, as it combines the basic management accounting techniques with the functioning knowledge of management about the business environment.

Mathematically, target cost can be described as Target Price – Target Profit. Target costing starts with the examination of a target profit (Okano, 2005). Extant literatures, however, starts the process with determination of a competitive product (eg. Hamada & Monden, 199; Ax, Greeve & Nilsson, 2008). Other contemporaneous literatures envisage planning as the proper start of the process; Tani (1995) needs mentioning.

Extant literatures have however taken different manners to explicate the process of this costing method. Kaur (2014) opined target costing as consisting two major phases which he called the establishment phase and implementation phases. Jalae (2012) perceived the process as directed by the marketplace by first setting a selling price, then subtracting target

income and finally reaching a cost. Ax et al. (2008) further stated that the target cost is then decomposed in order to assign cost targets internally and to suppliers. The degree of influence over suppliers was seen as one of the major factors affecting the structure of target costing (Fridh & Borgernas, 2003); they were of the view that early involvement of such suppliers may result in reduction of time to the market.

There have been diverse goals of target costing highlighted in extant literatures. This literature encapsulates the major objective of target costing as to reduce the cost of production of a product which invariably enhances the profit of such product. Target costing exploits costing information and aims at on the best possible price up front and prevents wasted time on discussions concerning design and re-engineering of the product (Jalae, 2012). Kaur (2014) saw target costing as a major strategic tool on the face of intense competition in the marketplace. Kumar (2014) also viewed target costing as a strong weapon for competition. The goals aforementioned postulated for this literature also has its relevance in situating the business in the competitive market place; Ax et al. (2012) needs mentioning.

a) Empirical Framework

Fridh & Borgenas (2003) studied the use of target costing on Swedish manufacturing firms. 91 companies answered out of 250 selected companies through random sampling. Primary data was used consisting of the results from the survey. The survey was afterwards published on a website which comprised of 277 multiple choice questions, mostly multiple-choice. The total population of the study consisted of companies with 50 or more employees in the Swedish manufacturing industry, which resulted in 664 companies. The results after the analysis showed that 16.5 % of manufacturing firms in Sweden use target costs and such companies using it are larger companies having a differentiation strategy and which operates in highly competitive environments. This assertion goes in line with one of the goals listed above (eg. Ax et al, 2012; Kaur, 2014; Kumar, 2014).

In studying the obstacles of applying a target costing system in firms, Sarokolaei & Rahimipoor (2013) used the research survey method, while adopting T-Student technique in regression test and coefficient correlation to study the type of relationship between the variables with correlation coefficient used to identify the toughness of correlation and the identification coefficient to determine the volatility of the dependent variable. The findings indicated the obstacles of adopting target costing to include the impracticability to assign a competitive price, rareness of the costumers' satisfaction idea, lack of group work spirit, and the non-utilization of the target costing system and value engineering. It was then concluded that companies

would not have any tendencies to use target costing until when the country (Tehran) benefits from a monopoly market. It was also affirmed that such companies will use this system only in competitive conditions in which they can continue their survival.

The eclectic analysis of Wu, Huang & Brown (2013) investigated the role of strategic management accounting in target costing in real-estate investment industry. The didactic literature review made a proposition that in real-estate investment industry, target costing focuses on market orientation/price dynamics together with cost management while giving an encapsulated view of its goals, and general and business circumstance of its implementation. They used the case study method and the interview-based evidences from the research revealed that creating added value to increase prices was combined together with cost management in order to achieve expected profit margins and that the strategy of product price increase in this industry was not only at the level of a whole of construction batch, but also at diverse products caused by the features of products within a batch. It was concluded that value creation for increased product price and cost management to meet the customers' needs in a monopoly competition market might provide ways to support the competitive techniques adopted by companies.

V. METHODOLOGY

In this study, the research instrument used is the cross sectional survey and explanatory method. The cross sectional survey is considered because it allows for the collection of quantitative data which can be analysed quantitatively using descriptive and inferential statistics.

The population for this study consists of 958 manufacturing companies listed in the Stock Exchange Fact book 2011 and registered with Manufacturers' Association of Nigeria as at December 2011 located in South-Western Nigeria. The minimum population size was calculated using Yaro-Yamani Formula.

$$n = \frac{N}{1 + N(e)^2}$$

Where,

n = sample size

N = Population of the study

e = Tolerable error (5%).

The minimum sample size therefore is:

$$\begin{aligned} n &= \frac{958}{1 + 958(0.05)^2} \\ &= \frac{958}{1 + 2.395} \\ &= \frac{958}{3.395} \\ &= 282.2 \\ &= 282 \text{ companies} \end{aligned}$$

VI. TEST OF HYPOTHESIS

Hypothesis One:

Target costing systems have not been significantly adopted by manufacturing companies in South Western Nigeria.

Table 1 : Result of regression test from hypothesis one
Model Summary

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
.319a	.102	-.198	1.73043

a. Predictors: (Constant), Companies response

Table 2 : ANOVAb

Model R	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.017	1	1.017	.340	.601a
Residual 8.983		3	2.994		
Total	10.000	4			

b. Predictors: (Constant), Companies response

c. Dependent Variable: Levels of adoption

Table 3 : Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B	Std. Error	Beta			
1	(Constant)	3.614	1.308	2.764	.070
	Companies response	-.011 .018	-.319	-.583	.601

a. Dependent Variable: Level of adoption

Interpretation of Parameter Values

Test of Significance

Probability value is the most efficient test of significance. If probability value is greater than 0.05($p > 0.05$), then it is insignificant. The decision is to reject H1 and not to reject Ho. On the other hand if probability value is less than 0.05 ($p < 0.05$), this shows significance. The decision is to reject Ho and not reject H1

From the result, TC adoption probability is 0.601 which is far greater than 0.05. The decision therefore is to accept Ho.

Coefficient of Correlation (R).

This is the measure of the goodness of fit of the regression estimate. The correlation coefficient, R, ranges from -1 to +1 It tells us if there is a relationship between the two variables in the first place. The father R is from zero, there is more probability that there is a relationship so the closer R is to -1 then there is more proof that the relationship is an inverse one and the closer to 1 implies a positive relationship between the variables. The result shows that the value of R is .319 therefore there is a low insignificant positive impact between organisational factors and the adoption and implementation by manufacturing companies in Ogun and Lagos states, Nigeria.

Coefficient of determination (R squared)

R squared is the coefficient of determination. The adjusted r squared is also a coefficient of

determination but it is a better value as it accounts for the degree of freedom and as such will be adopted for purpose of interpretation. The R-squared value of .102 shows that there is 10.2% level degree of adoption rate of target costing. The degree of determination is very low while the adjusted R-squared further buttressed the point with a negative value of about 19.8%

Hypothesis Two:

There is no significant relationship between the adoption and application of target costing and cost reductions by manufacturing companies in South-Western Nigeria.

The equation above establishes the linear relationship between the estimation commands as generated by spss. The estimation equation states that CR is linearly related to Adoption of target costing. C (1) is the constant that is the value of cost that can be reduced if target costing is not adopted or considered at all. C (2) is the slope, it gives the value of CR when target costing increases. The slope measures the rate of change in CR for a unit change in TC. Allowing for the influence of all other variables affecting CR in a stochastic variable u, the equation becomes $CR = C(1) + C(2) * TC + u$

Where u represents the random error term or simply the error term. Here u represents all those factors (asides Adoption of target costing) that affect CR (reduction in cost) but are not explicitly introduced in the model, as well as purely random forces.

Table 4 : Result of regression test from hypothesis two Model Summary

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
.823a	.677	.675	.77743

a. Predictors: (Constant), TC

Table 5 : ANOVA^b

Model	R	Sum of Squares	Df	Mean Square	F	Sig.
Regression		328.688	1	328.688		543.824.000a
Residual		157.144	260	.604		
Total		485.832	261			

a. Predictors: (Constant), TC

b. Dependent Variable: COST REDUCTION

Table 6: Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
	(Constant)	1.979	.085		23.240	.000
	TC	.622	.027	.823	23.320	.000

a. Dependent Variable: COST REDUCTION

Table 7: Result of Pearson correlation test from hypothesis two Correlations

	TC	COST REDUCTION	
TC	Pearson Correlation	1	.823**
	Sig. (2-tailed)		.000
	N	262	262
COST REDUCTION	Pearson Correlation	.823**	1
	Sig. (2-tailed)	.000	
	N	262	262

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

$$\begin{aligned}
 CR &= F(TC) + u & SE &= .085 & .027 \\
 CR &= C(1) + C(2) * TC + u & T\text{-Statistics:} & 23.240 & 23.320 \\
 CR &= 1.979 + .622TC + u & Prob(T\text{-Statistics}): & .000 & .000
 \end{aligned}$$

$$R = 0.823 \quad R\text{-Square } (R^2) = 0.677 \quad \text{Adjusted } R\text{-Square } (R^2) = 0.675$$

Interpretation of Parameter Values

Test of Significance in t test and F Statistics

Probability value is the most efficient test of significance. If probability value is greater than 0.05 ($p > 0.05$), then it is insignificant. The decision is to reject H1 and not to reject Ho. On the other hand if probability value is less than 0.05 ($p < 0.05$), this shows significance. The decision is to reject Ho and not reject H1.

From the result, CR probability is 0.00 which is less than 0.05. The decision therefore is shows a strong evidence of H1.

Coefficient of Correlation (R).

This is the measure of the goodness of fit of the regression estimate. The correlation coefficient, R, ranges from -1 to +1 It tells us if there is a relationship between the two variables in the first place. The father R is from zero, there is more probability that there is a relationship so the closer R is to -1 then there is more proof that the relationship is an inverse one and the closer to 1 implies a positive relationship between the variables. The result shows that the value of R is 0.823 therefore there is a significant positive relationship between the adoption and application of target costing

system and reduction in the cost of manufactured products of manufacturing companies in Ogun and Lagos states Nigeria.

Coefficient of determination (R squared)

R squared is the coefficient of determination. The adjusted r squared is also a coefficient of determination but it is a better value as it accounts for the degree of freedom and as such will be adopted for purpose of interpretation. The R-squared value of 0.677 shows that there is a 68% level degree of relationship between the activities based costing adoption and reduction in cost of manufacturing company. The degree of determination is high while the Adjusted R-squared even shows it at the same percentage of about 68%. This means that a variation or change in the dependent variable (TC) in response to a positive change in the independent variable is to the tune of Sixty eight (68%) i.e. 0.675

Hypothesis Three:

There is no significant association between the extent of the adoption of target costing and improvement of financial performance by manufacturing companies in South-Western Nigeria.

$$IFP = F(TC)$$

The equation above establishes the linear relationship between the estimation commands (TC and IFP) as generated by SPSS. The estimation equation states that IFP is linearly related to Adoption of target costing. C (1) is the constant that is the value of cost improved financial Performance if target costing is not adopted or considered at all. C (2) is the slope; it gives the value of IFP when TC increases. The slope measures the rate of change in IFP for a unit change in TC. Allowing for the influence of all other variables

affecting IFP in a stochastic variable u , the equation becomes

$$IFP = C(1) + C(2) * TC + u$$

Where u represents the random error term or simply the error term. Here u represents all those factors (asides Adoption of target costing) that affect IFP (Improved Financial Performance) but are not explicitly introduced in the model, as well as purely random forces.

Table 8 : Result of regression test from hypothesis three Model Summary

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
.917a	.841	.841	.76240

a. Predictors: (Constant), TC

Table 9 : ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	801.592	1	801.592	1379.079	.000a
Residual	151.125	260	.581		
Total	952.718	261			

a. Predictors: (Constant), TC

b. Dependent Variable: Financial Performance

Table 10 : Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.
B	Std. Error	Beta		
(Constant)	-1.163	.083	-13.933	.000
TC	.971 .026	.917	37.136	.000

a. Dependent Variable: Financial Performance

Table 11 : Result of Pearson correlation test from hypothesis three Correlations

		TC	Financial Performance
TC	Pearson Correlation	1	.917**
	Sig. (2-tailed)		.000
	N	262	262
Financial Performance	Pearson Correlation	.917**	1
	Sig. (2-tailed)	.000	
	N	262	262

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

IFP	=	F (TC) + u	SE	=	.083	.026
IFP	=	C (1) + C (2)*TC + u	T- Statistics:		(13.933)	37.136
IFP	=	(1.163) + .971TC + u	Prob(T- Statistics):		.000	.000
R = 0.917		R-Square (R2) = 0.841			Adjusted R-Square (R2) = 0.841	

Interpretation of Parameter Values

Test of Significance in t test and F Statistics

Probability value is the most efficient test of significance. If probability value is greater than 0.05 ($p > 0.05$), then it is insignificant. The decision is to reject H1 and not to reject Ho. On the other hand if probability value is less than 0.05 ($p < 0.05$), this shows significance. The decision is to reject Ho and not reject H1.

From the result, CR probability is 0.00 which is less than 0.05. The decision therefore is shows a strong evidence of H1.

Coefficient of Correlation (*R*).

This is the measure of the goodness of fit of the regression estimate. The correlation coefficient, *R*, ranges from -1 to +1 It tells us if there is a relationship between the two variables in the first place. The father *R* is from zero, there is more probability that there is a relationship so the closer *R* is to -1 then there is more proof that the relationship is an inverse one and the closer to 1 implies a positive relationship between the variables. The result shows that the value of *R* is 0.917 therefore there is a significant positive relationship between the adoption and application of target costing system and relative improvement in financial performance of manufactured products of manufacturing companies in the south – western Nigeria.

Coefficient of determination (*R squared*)

R squared is the coefficient of determination. The adjusted *r squared* is also a coefficient of determination but it is a better value as it accounts for the degree of freedom and as such will be adopted for purpose of interpretation. The *R-squared* value of 0.841 shows that there is a 84% level degree of relationship between the target costing adoption and relative improvement in financial performance of manufacturing company. The degree of determination is high while the Adjusted *R-squared* even shows it at the same percentage of about 84%. This means that a variation or change in the dependent variable (TC) in response to a positive change in the independent variable is to the tune of Eighty four (84%) i.e. 0.841.

VII. CONCLUSION

The result of hypothesis 1 shows that there is a significant level of adoption of Target costing by manufacturing industry in Lagos and Ogun States; although the level of adoption appears to be less than that of the majority of the country surveyed in the developed countries but comparable to that of Japan and South Africa. The result of Hypothesis 2 shows that the *r2* value of 0.677 and *p* value of 0.000 indicates a positive relationship between the adoption and

implementation of target costing systems and the reduction of cost of production by manufacturing companies in South Western Nigeria. The result of hypothesis 3 shows that there is a significant association between the extent of the adoption of target costing and improvement of financial performance by manufacturing companies in South-Western Nigeria with *r2* value of 0.917 and *p* value 0.000

The barrier to the implementation of target costing in this part of the continent is an area which deserves further study.

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Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art. A few tips for deciding as strategically as possible about keyword search:



- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
- It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.
- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author's name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

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Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

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29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

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- Please note the criterion for grading the final paper by peer-reviewers.

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Approach:

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Approach

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<i>Introduction</i>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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