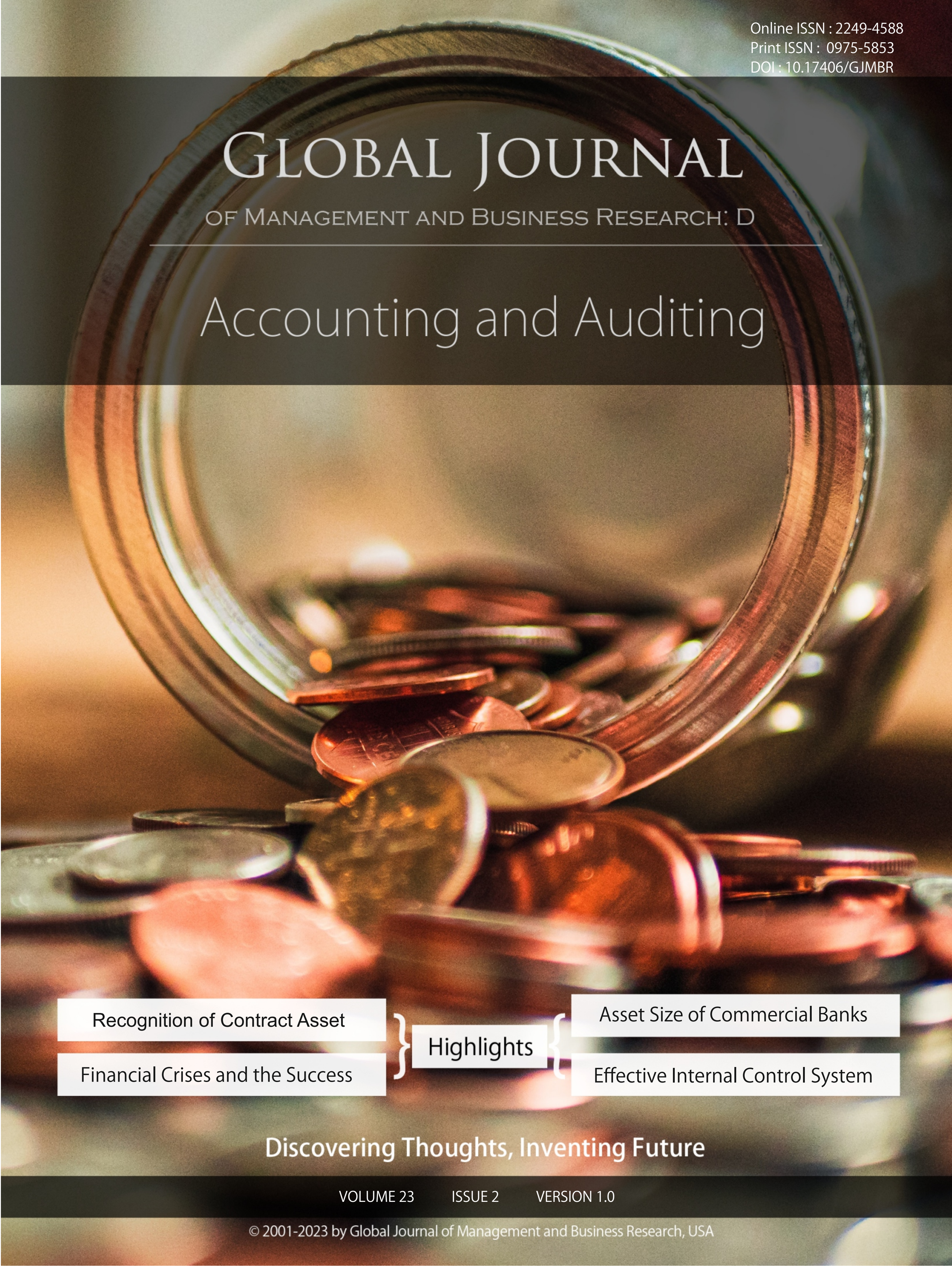

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Highlights

Recognition of Contract Asset

Financial Crises and the Success

Asset Size of Commercial Banks

Effective Internal Control System

Discovering Thoughts, Inventing Future

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Financial Crises and the Success of Global Portfolio Management: A Study of the Middle East and North Africa

By Fatma Khalfallah

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Keywords: financial crisis, ICAPM, international diversification, financial integration.

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I. Introduction

In modern portfolio theory and with the famous Markowitz theory (52), international diversification is an integral feature of international financial markets.

Any investor will certainly prefer investment opportunities that offer the most attractive prospects all else being equal, the rate of return taken in isolation is not sufficient to characterize an investment opportunity. It is also necessary to consider possible deviations of the rate of return from its expected value, which brings us back to the concept of uncertainty or risk.

Thus, several potential benefits have encouraged investors to internationalize their portfolios; risk reduction, performance improvement. However, these benefits are directly related to the nature of the financial market structures of the countries involved (Hasan and Simaan 2000).

In addition, several factors present an obstacle to the gains of international diversification. Thus, previous works have shown that the exchange rate risk and the political risk present major limits to the benefits resulting from the strategy of international diversification (Eun and Resnik (1987), Cosset and Suret (1995)).

Over time, and depending on the events that have occurred in the financial markets, particularly the incidence of financial crises, the debate has focused on the significant impact of these crises on international portfolio diversification strategies.

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Indeed, the strong financial integration between financial markets constitutes a major concern for the investor in search of international portfolio diversification. Since, the direct consequence of financial inter-dependencies is the propagation of volatility on stock markets.

This transmission of volatility manifests itself in the instability of financial markets in the prices and returns of financial assets and in the levels of stock market indices.

In this context, the international investor is confronted with this risk, which presents a threat that prevents them from achieving their objectives in international diversification strategies.

This observation opens up a rich field of research, and several empirical works have taken into consideration the intensity of the changes that have hit the global financial system since the 1987 crisis.

The first line of research was conducted by Roll (1988) and Miniskey (1992) on this crash. Then other works examined the crises of emerging countries "the Asian crisis, the Mexican crisis" such as Karyoli and Stulz (1996), Schwebach et al (2002), they underlined the stake of the strategy of international diversification in a context revived by rather strong financial disturbances.

As a result, the second line of research studied the effectiveness of this strategy and evaluated the expected gains from international diversification.

Thus, the research focused on developed markets and especially on the emerging markets of East Asia, Latin America and Central Europe with studies by, (Middleton et al (2008), Robert G. Bowman, Kam Fong Chan and Matthew R. Comer (2010), Jacek Niklewski and Timothy Rodgers (2011) and Robert Vermeulen (2013).

The conclusion drawn from this strand of research is that with the growth of comovements between developed and emerging markets and the frequent emergence of financial crises that characterize East Asia, Latin America, and Eastern Europe, the investor should target other emerging markets that provide advantages in managing their portfolio.

Recently, the MENA region has been under the scrutiny of some works in order to measure the potential profit of diversification that it can offer to foreign investors, such as Abraham et al (2001), Simon Neaime

(2005,2012), Lagoarde-Segot et al (2007), Cheng et al (2010), Dağli, H et al (2012) and Balcılar, M et al (2015).

In our turn, in our empirical investigation, we are interested in eight MENA countries (Tunisia, Morocco, Egypt, Turkey, Jordan, Saudi Arabia, United Arab Emirates), three developed countries (United States, Great Britain and France) and the world market, with the objective of measuring the degree of integration of each MENA country in our sample with the world market and to answer the following question: For a foreign investor, are the MENA stock markets advantageous in terms of diversification gain in a context revived by crises?

To achieve this objective, a literature review on international diversification during financial crises will be presented in a first section, as well as an empirical study of the impact of the subprime crisis on MENA stock markets in terms of portfolio management performance which will be the subject of a second section.

II. Literature Review

Roll (88) showed that during the crash 87 all stock prices of 23 global financial markets studied have sharp declines around 20% per month, similarly the correlations between countries are mainly positive but moderate in size.

Minskey (1992) examined the same crisis by finding that the crash can have a major impact on the architecture of financial markets, he indicated that the crisis has sown the seeds of structural changes across international financial markets.

As a result, the studies of Longin and Solnik (95), Solnik (97), Karolyi and Stulz (1996), Kronor and Ng (1998) Groslambert (2000) have highlighted the increase in correlations of stock market indices during periods of crisis marked by a strong movement of volatility.

Garnaut (1998) argued that the Asian crisis had a major structural impact on the financial architecture of the region through the increase in the degree of correlations.

Schwebach et al (2002) confirmed this result and indicated that correlations between countries increased from 0.18 to 0.274 during the first phase of the crisis and from 0.451 to 0.531 during the second phase, the same results are also affirmed by Bekaert et al (2005).

All these results call into question the effectiveness of international diversification strategy.

Thus, Wan-juin Paul chiou (2008) examined the comparative benefits of international diversification through the analysis of the indices of 21 developed countries and 13 developing countries over a period from January 1988 until December 2004.

To properly assess the gains of international diversification, two simple measures are used, the increase in the risk-adjusted premium by investing in the maximum risk-adjusted return portfolio and the reduction in volatility by investing the minimum variance portfolio on efficient international frontiers.

The empirical results suggest that investors in less developed countries, particularly East Asia and Latin America, benefit from regional and international diversification more than those in developed countries. The study found that the absolute values of the gains are reduced over time due to the integration and financial crises of the international financial market.

However, (Middleton et al (2008) they showed that the opportunities to invest in emerging markets of Central Europe are still significant, even in times of financial crisis.

Lagoarde-Segot, T et al (2009) tested the contagion between the G7 markets through the study of stock market linkages in order to identify the benefits of international diversification, their results show that during periods of turmoil the interdependence is increased but despite this context the benefit is still there for fund managers in these markets, it seems to be robust to strong changes in volatility

Robert G. Bowman, Kam Fong Chan, and Matthew R. Comer (2010) examined the response of global equity markets to the 1997 Asian crisis. The study included 39 countries a portfolio of 17 emerging countries, and a portfolio of 22 developed countries.

They showed that the correlations of returns in the countries during the Asian crisis was increased dramatically. This indicates that the benefits of international diversification were significantly reduced, but not necessarily eliminated, during the crisis. Following the crisis, they found that correlations declined, but not to the pre-crisis level, so the benefits of international diversification are available, but they are diminished.

Jacek Niklewski and Timothy Rodgers (2011) sought to answer the crucial question of whether the changes in financial market architectures caused by the global financial crisis have had a permanent impact on international diversification? As such, they sought to examine the conditional correlations between U.S. equity markets and a number of developed, emerging and frontier markets.

They pointed out that the increase in correlation during and after the crisis has a direct impact on international diversification, such that investing in emerging and frontier markets has become less attractive to international portfolio managers.

Vermeulen Robert (2013) empirically examined during the period of 2001 to 2009, the portfolios of international investors before and during the global financial crisis for 22 countries. The results indicate that during the crisis international investors rebalanced their portfolios towards the less correlated markets.

Moreover, the author emphasized that the most important thing here is not the diversification in silk but the diversification where investors manage to hang less correlated stocks when the market situation is very volatile.

However, the question of expected gains from international diversification remains understudied for certain regions such as the Middle East and North Africa: MENA.

Some works have explored this area in order to identify for the international investor the existing opportunities to diversify his portfolio on these markets.

Indeed, Ali F. Darrat et al (2000) examined the degree of integration of three stock markets: Morocco, Jordan and Egypt, using the causality tests of Granger (69) and the cointegration tests of Johnson (88).

They showed that these emerging countries are globally segmented and regionally integrated which means that these studied MENA markets offer diversification potential for international investors.

Abraham et al (2001) selected three oil-producing markets in the Gulf region for a period from 1993 to 1998, with the aim of assessing the substantial benefits of diversification in these markets.

Indeed, using the mean-variance paradigm of Markowitz (59), they highlighted a low correlation of returns between these markets studied and the They indicated that the allocation of funds can be extended up to (20-30%) into the U.S. equity markets, which offers an important opportunity for investors to integrate securities from these markets into their portfolios to enhance returns and reduce risk.

They indicated that the allocation of funds can be extended up to (20-30%) in the stock markets.

In (2003), Assaf selected six Middle Eastern stock markets: Bahrain, Kuwait, Oman, Saudi Arabia and the Emirates, similarly Hassan et al studied ten markets in this region and this was to examine the correlations between these markets.

They pointed out that the benefit of diversification is significant; some markets have low correlation with others and thus may be a better choice to reduce the risk of a regional investment portfolio.

Simon Neaime (2005) examined the integration of seven MENA markets with each other and with major global stock exchanges. Johnson's cointegration tests indicate that the GCC (Gulf Cooperation Council) stock exchanges still offer international investors potential for portfolio diversification.

Thomas et al (2005), using the cointegration method to examine the financial structure of the MENA region and their implication on international portfolio management, showed that the long-term correlation of these markets with the European as well as the US market is not stable. This indicates the existence of an opportunity to diversify the asset portfolio for the three categories of investors.

In (2007), the same authors examined the issue of international diversification this time on seven stock markets in the MENA region "Morocco, Tunisia, Egypt, Jordan, Lebanon, Turkey and Israel".

They constructed international portfolios in both dollars and local currencies for a period from 1998 to 2006, their results highlighted the presence of remarkable diversification benefits in the MENA region.

Cheng et al (2010) studied the return behavior of nine stock markets in the MENA region namely "Bahrain, Egypt, Israel, Jordan, Kuwait, Morocco, Oman, Saudi Arabia, and Turkey" by using different variants of CAPM.

They conducted a comprehensive empirical analysis on the dynamics of returns and risk in the MENA region, overall they found that the markets of Turkey and Israel are the most integrated with the global market, their results suggest that investing in most of the Arab markets in the MENA region for the period of study provides uncorrelated returns with the global market, thus an opportunity of profit by exercising international diversification in these markets.

Mansourfour et al (2010) divided the MENA region into two groups "oil producing countries" and non-oil producing group, in order to examine the role of each group in the benefit presented to international investors in terms of international diversification.

The results of this study indicate that oil-producing countries offer more advantageous opportunities for international portfolio diversification than the countries in the second group

However, during the global financial crisis in 2008 the returns in these markets collapsed.

Neaime (2012) in this study the author analyzed the impact of the global financial crisis 2007-2008 on the emerging markets of the MENA region, through the examination of financial linkages between the markets of the MENA region and the most developed financial markets as well as the intra-regional linkages between the financial markets of the MENA countries among themselves.

Thus, through a detailed examination of financial integration in seven stock markets in the MENA region namely: Egypt, Jordan, Morocco, Tunisia, Kuwait, Saudi Arabia, and the Emirates with France, Great Britain, and the United States, while taking into consideration the volatility in these markets as well as the phenomenon of contagion during the period of the financial crisis, Simon Neaime showed that the stock market of Saudi Arabia is the market least affected by the global financial shock and still offers opportunities for portfolio diversification, while the markets of non-oil producing countries offer less opportunities for diversification.

Michael et al (2013) took by study the stock market comovements of the MENA region; "Egypt, Jordan, Saudi Arabia, Kuwait, Quater, Emirates" with the US market and between them for a period of 9 years from 2002 to 2010.

The results show that there is a modest degree of correlation between the MENA region and the U.S. market which implies opportunities for diversification in the near term.

Houseyin et al (2013) conducted an empirical study on emerging markets in Europe, the Middle East and Africa to identify the benefits of international diversification among the markets of the Czech Republic, Egypt, Hungary, Morocco, Poland, Russia, South Africa and Turkey.

Using, Johansen's (1988) cointegration tests for a period from 1994 until 2010, they showed the existence of cointegration relationships between most of these markets with a finding that the benefits of portfolio diversification in these markets are limited for investors.

Mehmet Balcilar et all (2015) examined the opportunities for international diversification in the stock markets of GCC countries, some countries show segmentation with the global market during periods of disruption and thus can offer diversification opportunities despite the crisis environment.

Mouna Boujelbene et all (2015) conducted an empirical investigation on developed and emerging Islamic stock markets "European, Asian, North American, MENA and Latin American markets, with the aim of examining the benefits of international diversification during quiet and disruptive periods.

Their study using the multivariate cointegration test highlights that Islamic stock market movements are partially segmented, in addition the level of integration between markets tends to change over time especially during periods characterized by financial crises.

Their results suggest that Islamic Shariah-compliant assets may offer potential diversification benefits, a finding that has important implications for the design of investment strategies for investors who wish to diversify their portfolios especially during periods of crisis.

In sum, the works that are interested in the study of the dynamics of the gains expected from international diversification as a function of integration, they have ignored the exchange rate risk, in other words, they have assumed that investors do not hedge their exposure to exchange rate risk, so that the price of exchange rate risk is equal to zero, as is the price of local market risk "Giovannini and Jorion (89), Harvey (91), Chan et al.

The same approach was adopted by the works that considered the effect of financial crises "Roll (88), Rahm and Yung (94), Hamao et al (90), Arrouri and Jawadi (2011), Kenourgios et al (2011).

In addition, according to the literature review presented on the issue of international diversification for stock markets in the MENA region, we can see that the period of study is always short, the results of work are heterogeneous and fail to decide between the existence or nonexistence of opportunities for international diversification on the MENA region.

Also, the basic model; "the model of De Santis and Gerard (97)" which was adopted by the majority of previous works to identify the gains of international diversification is based on the assumption of perfect financial integration, however the reality on the financial markets that they are in a situation of partial segmentation, and this after the previous works of Bekaert and Harvey (95,97), Karolyi and Stulz (2002), Dumas et al (2003), Bar and Pristley (2004).

III. Methodology

Our contribution at this stage consists in applying a conditional CAPM that takes into account in addition to the global market risk; the specification of the degree of integration of the studied markets, the assessment of the exchange rate risk as well as the local market risk. In order to study the effect of financial crises on the evolution of financial integration of national markets in the MENA region with the global market as well as with the three selected developed markets namely France, Great Britain and the United States and thus to examine the possibilities of portfolio diversification for international investors in this region.

So the methodology adopted for this line of research consists in testing a conditional version of MEDAFI of De Santis and Gerard (97), by admitting a specification of a multivariate GARCH process (MGARCH).

a) *The Dynamic Version of CAPM*

In a context of perfect financial integration in the financial markets and with the PPP hypothesis verified, the international extension of the CAPM of Sharpe (64) and Linter (65) presented by Adler and Dumas (83), Solnik (77), Stulz (81), De Santis and Gerard (97) and others, can be written as follows

$$E(R_{it} / \Psi_{t-1}) - R_{ft} = \beta_{im,t-1}\left[E(R_{mt} / \Psi_{t-1}) - R_{ft}\right] \; ; \; \forall_i \tag{1}$$

$$\text{With } \beta_{im,t-1} \equiv \frac{\operatorname{cov}(R_{it}, R_{mt} / \Psi_{t-1})}{\operatorname{var}(R_m / \Psi_{t-1})} \tag{2}$$

This is the variable sensitivity of security i to the market portfolio m..

R_{it} : The variable profitability of security i between (t-1) and t

R_{ft} : The return on the risk-free asset between (t-1) and t..

R_{wt} : The return on the global market portfolio between (t-1) and t.

All expectations are made conditional on the information vector available at time t-1.

Equation (1) can be rewritten as follows:

$$E(R_{it} / \Psi_{t-1}) - R_{ft} = \delta_{m,t-1} \operatorname{cov}(R_{it}, R_{mt} / \Psi_{t-1}) \; \forall_i \quad (3)$$

$$\text{With} \quad \delta_{t-1} \equiv \frac{E(R_{mt} / \Psi_{t-1}) - R_{ft}}{\operatorname{var}(R_m / \Psi_{t-1})}$$

This is the world market covariance risk price over time.

Relationship (3) is the most widely used formulation in empirical asset pricing work, and implicitly assumes that financial markets are integrated in a way that the market risk price equals zero; investors are not exposed to currency risk.

Implications for international portfolio diversification.

In what follows, we will examine the implications of relationship (3) for international portfolio diversification.

Thus, let us consider two portfolios that present the same risk, the first one is internationally diversified noted I and the other one is purely domestic noted i. The CAPMT relationship described in equation (3) allows us to calculate the expected return on each of these portfolios.

The difference between the two expected returns can be interpreted as the ex-ante gain from international portfolio diversification (the benefit generated by holding international stocks).

This gain can be expressed as follows:

$$E(R_{It} - R_{it} / \Psi_{t-1}) \quad (4)$$

According to Black's (1972) separation theorem, portfolio profitability can be written as a form of a linear combination between the risk-free asset and the market portfolio $R_I = \theta_{t-1} R_{mt} + (1 - \theta_{t-1}) R_{ft}$, where θ is the measure of risk aversion

Thus, the excess return of the portfolio I is expressed as follows:

$$E(R_{It} / \Psi_{t-1}) - R_{ft} = \delta_{m,t-1} \operatorname{cov}(\theta_{t-1} R_{mt}, R_{mt} / \Psi_{t-1}) = \delta_{m,t-1} \theta_{t-1} \operatorname{var}(R_{mt}, / \Psi_{t-1}) \quad (5)$$

The excess return of portfolio i is expressed as follows:

$$E(R_{it} / \Psi_{t-1}) - R_{ft} = \delta_{m,t-1} \operatorname{cov}(R_{it}, R_{mt} / \Psi_{t-1}) \quad (6)$$

Since both portfolios have the same risk, the positive coefficient can be deduced from the following system.

$$\operatorname{var}(R_{it} / \Psi_{t-1}) = \operatorname{var}(R_{It} / \Psi_{t-1}) \quad (7)$$

$$\operatorname{var}(R_{It} / \Psi_{t-1}) = \theta_{t-1}^2 \operatorname{var}(R_{mt} / \Psi_{t-1}) \quad (8)$$

$$\text{Let} \quad \theta_{t-1}^2 = \frac{\operatorname{var}(R_{it} / \Psi_{t-1})}{\operatorname{var}(R_{mt} / \Psi_{t-1})} \quad (9)$$

According to equations (5) and (6), the gain of international diversification for a domestic investor according to the conditional version of the CAPM is given by the following relation:

$$E(R_{It} - R_{it} / \Psi_{t-1}) = \delta_{m,t-1} \left[\theta_{t-1} \operatorname{var}(R_{mt} / \Psi_{t-1}) - \operatorname{cov}(R_{it}, R_{mt} / \Psi_{t-1}) \right] \quad (10)$$

A first intuition can be drawn from equation (10) by taking the particular case $\theta = 1$

$$E(R_{It} - R_{it} / \Psi_{t-1}) = \delta_{m,t-1} \left[\operatorname{var}(R_{mt} / \Psi_{t-1}) - \operatorname{cov}(R_{it}, R_{mt} / \Psi_{t-1}) \right] \quad (11)$$

Relation (11) presents the measure of portfolio diversification gains developed by De Santis and Gérard (97) for the case of the American investor, which is a special case of (10), according to their relation market i has the same portfolio risk of the world market at each point in time.

According to the relation (10), the expected gains from portfolio diversification are an increasing function of the price of the world market risk and the quantity of the specific risk considered.

However, our contribution at this level of research consists in developing a conditional version of the FEM which allows on the one hand to measure the expected gains from international diversification and on the other hand it must take into account other factors in addition to the global market risk.

The factors that are ignored by previous studies precisely in this topic, namely: the exchange rate risk, the local market risk and the specification of the degree of integration.

In this regard, the use model developed by Fatma Khalfallah (2023) is appropriate at this level.

Thus, our version of conditional CAPM presents a mixed relationship between the price of market risk, exchange risk and domestic market risk and a measure of degree of financial integration is as follows:

$$E(R_{it}/\Psi_{t-1}) - R_{ft} = \phi_{t-1}^{i}\left[\delta_{m,t-1}\,\mathrm{cov}(R_{it}, R_{mt}/\Psi_{t-1}) + \sum_{c=1}^{L}\delta_{c,t-1}\,\mathrm{cov}(R_{it}, R_{ct}/\Psi_{t-1})\right] + \left(1-\phi_{t-1}^{i}\right)\left[\delta_{i,t-1}\,\mathrm{var}(R_{it}/\Psi_{t-1})\right] \quad (12)$$

Thus the model application of equation (12) for equations (5) and (6) is as follows.

For equation (5), the excess return on the portfolio I that is internationally diversified is written as a function of market risk and currency risk:

$$\begin{aligned} E(R_{It}/\Psi_{t-1}) - R_{ft} &= \left[\delta_{m,t-1}\,\mathrm{cov}(\theta_{t-1}R_{mt}, R_{mt}/\Psi_{t-1}) + \sum_{c=1}^{L}\delta_{c,t-1}\,\mathrm{cov}(R_{mt}, R_{ct}/\Psi_{t-1})\right] \\ &= \delta_{m,t-1}\theta_{t-1}\,\mathrm{var}(R_{mt}/\Psi_{t-1}) + \sum_{c=1}^{L}\delta_{c,t-1}\,\mathrm{cov}(R_{mt}, R_{ct}/\Psi_{t-1} \end{aligned} \quad (13)$$

For equation (6), the excess return of portfolio i that is purely domestic is written as a function of market risk and local market risk and a measure of degree of integration:

$$E(R_{it}/\Psi_{t-1}) - R_{ft} = \phi_{t-1}^{i}\left[\delta_{m,t-1}\,\mathrm{cov}(R_{it}, R_{mt}/\Psi_{t-1}) + \left(1-\phi_{t-1}^{i}\right)\left[\delta_{i,t-1}\,\mathrm{var}(R_{it}/\Psi_{t-1})\right]\right] \quad (14)$$

Thus, according to equations (13) and (14), the gain from international diversification according to the conditional version of the CAPM is given by the relation (15)

$$\begin{aligned} &E(R_{It} - R_{it}/\Psi_{t-1}) = \delta_{m,t-1}\left[\theta_{t-1}\,\mathrm{var}(R_{mt}/\Psi_{t-1}) - \phi_{t-1}^{i}\,\mathrm{cov}(R_{it}, R_{mt}/\Psi_{t-1})\right] + \\ &\left[\sum_{c=1}^{L}\delta_{c,t-1}\,\mathrm{cov}(R_{mt}, R_{ct}/\Psi_{t-1} - \left(1-\phi_{t-1}^{i}\right)\delta_{i,t-1}\,\mathrm{var}(R_{it}/\Psi_{t-1})\right] \end{aligned} \quad (15)$$

Then, relation (15) shows that the expected gain from international diversification strategies is determined as a function of the price of market risk, the amount of country-specific risk considered with a measure of the degree of integration

$$\mathrm{var}(R_{mt}/\Psi_{t-1}) - \phi_{t-1}^{i}\,\mathrm{cov}(R_{it}, R_{mt}/\Psi_{t-1})$$

the price of exchange rate risk $\delta_{c,t-1}$ and local market risk $\delta_{i,t-1}$

b) The Data

Our study focuses on the economies of the MENA region, with data for the following countries: Tunisia, Morocco, Egypt, Turkey, Jordan, Saudi Arabia, the United Arab Emirates United Arab Emirates, France, Great Britain, the United States, and the global market. Then, four groups of data are considered: the monthly return series market as well as the world market, the series of real exchange rates expressed in US dollars exchange rate series expressed in U.S. dollars, the financial and macroeconomic variables used to macroeconomic variables used to condition the estimates of risk prices and the instrumental variables related to the degree of related to the degree of integration.

c) The Yield Series

The observations used are monthly end-of-period prices from January 1995 to December 2013 for Morocco, Egypt, Turkey and Jordan, and from May 2005 to December 2013 for Tunisia, Saudi Arabia and the United Arab Emirates.

Market prices are taken from Morgan Stanley Capital International.

(MSCI), and the market portfolio is approximated by the MSCI world index 25, these market returns are expressed in dollars and adjusted by dividends.

d) Real Exchange Rate Series

The monthly real exchange rates are expressed in terms of the U.S. dollar 27, and are taken from Interntaional Financial are extracted from Interntaional financial statictic (IFS) and obtained by subtracting nominal exchange rates exchange rates by the consumer price indexes (CPI).

e) Global and Local Instrumental Variables

The instrumental variables are used to condition estimating the prices of market risk, currency risk and risk local, like Hardouvelis et all (2006) and Carrieri and All (2007) we retain the following factors to condition estimating the prices of market risk and foreign risk:

- The monthly change in dividend yield (dividend to price ratio) of the world market portfolio (MSCI world index) over the 30-day eurodollar interest rate (DRMDV)
- The monthly change in the premium term, it's the difference between a long interest rate (10 years us treasury notes) and short rate (3 months us treasury bills) (DEPTERM)
- The monthly change in the short term interest rate (3 months us treasury bills) (DSHORT).
- The monthly change in the S&P's 500 stock market index (RSP)
- A constant term

All these information variables are extracted from the international datastream database and are used with a lag behind the series of excess returns.

For the risk of the local market of each country, we use the following set of information variables is determined by previous studies like Bekaert and Harvey, 1995; Gerard et al., 2003)

- A constant term
- The monthly change in the excess stock returns of each country (DRD)
- The monthly change in 1-month interest rate (DSHORT)
- The monthly change in the regional inflation rate (VIR)
- 4- the instrumentals variables of financial integration

The degree of financial integration for each country is affected by some economic financial and sociopolitical factors at the local and international level. It is, therefore, necessary to identify the determinants of the degree of financial integration. To this end, we use the following variables information

- *DGDP:* Each country's Gross domestic product (GDP) in volume, which is considered the most appropriate instrument to identify the level of integration by Carrieri et al. (2007) and Bhattacharya and Daouk (2002).
- *INRD:* The interest rate differential between the US market and the local market, this variable reflects the convergence of these emerging markets to the global market
- *INFD:* The differential between the rate of inflation in each local market and the US, this variable highlights the volatility of exchange rates of the local currency and provides information on the investment costs and consequently the advantage of diversification

Table 1: Anticipated Gains from International Diversification of MENA Markets for the Period 05-2005 to 12-2013 (%)

	With the World Market	With the French Market	With the British Market	With the American Market
Egypt	1.561 (1.2795)	1.9299* (1.2909)	1.8199* (1.1794)	2.009* (1.1905)
Emirates	2.4695* (0,2876)	2.8905* (0,3806)	2.155* (0,1887)	2.305* (0,1437)
Jordan	3.8351* (0,1117)	4.491* (0,2117)	3.9075* (0,1001)	4.101** (0,123)
Morocco	3.8479** (0,1776)	3.201** (0,2228)	3.9978** (0,1476)	6.001** (0,0869)
Saudi Arabia	3.607* (0,6223)	4.5071*** (0,7023)	4.0171* (0,4988)	3.9891* (0,7117)
Tunisia	5.021*** (0,0889)	6.331** (0,0569)	5.906*** (0,0780)	7.122*** (0.033)
Turkey	1.132 (2,3441)	2.0021 (2,0441)	1.977 (2,2911)	2.881 (2,0001)

** Significant at the 10% level, ** Significant at the 5% Level, *** Significant at the 1% level, (.) Standard Deviation is Reported in Parentheses.*

According to Table 1, the results show a statistically and economically significant advantage of international diversification for all the markets studied with the global market, the French market, the British market and the American market except for Turkey.

Indeed, over the period of study, Egypt the most correlated with the global market with an average correlation of 62% has the lowest average annual profits 1.56%, the same finding with the French market, British and American; the strongest correlation with a low potential diversification that does not exceed 2%.

On the other hand, Tunisia the least correlated market with the global market, the French market, the British market and the U.S. market with respective average correlations (32%, 31%, 32%, 31%) and presents the highest profits of diversification (5%, 6.33%, 5.9%, 7.12%) .

Morocco presents a diversification gain for the American investor of 6% and around 4% with the world, French and British markets with an average correlation of 40% with all these markets. The same result is also found for Jordan with very close values for the correlation as well as the gains of international diversification.

For the Gulf countries, Emirates and Saudi Arabia have a correlation at the turn of 50% and 40% with the world market as well as with the other developed markets, they present significant diversification gains on average of 2.5% for Emirates and at the turn of 4% for Saudi Arabia.

The results reported in this table of the evolution of diversification gains, indicate that the estimated gains of international portfolio management have significantly decreased during the crisis phase, contrary to the opinion among financial experts and academics.

Indeed, the anticipated gain of Egypt's diversification with the world market and developed markets presents oscillations with positive and negative values that explains the low potential of diversification, a sharp drop is recorded twice; (-25%) during the crisis phase 2007-2009 and (-28%) during the revolution period 2010-2011.

For Morocco, the profit values are more important before the crisis period, at the time of shock the gains noted a considerable fall (-13%), this result valid with the world market, French, British and especially with the American market the gains remained slightly weak until the end of the period of study and this compared to the period before the crisis.

For Jordan, the graph shows a sharp drop of (-23%) between 2008 and 2009 with the world market and the developed markets in our sample. These same findings are also valid for the Saudi and UAE markets with falls of 20% and 27% during the crisis phase.

For Tunisia, the subprime crisis has also affected the gains on this market with a drop in value (-12%) as well as during the period of revolution 2010-2011, this collapse is recorded with the global market, French, British and American.

f) Financial Integration

i. *The Degree of Financial Integration*

Table 2: Estimation of Dynamic Financial Integration

	EGYPT	EMIRATES	JORDAN	MOROCCO	SAUDI ARABIA	TUNISIA	TURKEY
Panel A: Estimation Results of the Degree Of Integration as a Function of The Instrumental Variables							
Cons	-0.099***	-0.0152*	0.022***	-0.0062	-0.106*	0.23	0.0098**
DGDP	-0.0037	0.002	6.7E-04	0.001	0.002	-0.0019	4.8E-04
INRD	0.004	-0.0153*	-0.0065*	0.001	-0.0066	-0.0076	-3.1E-04*
IFRND	0.0756	0.0018	-0.0029**	-0.0045	0.0019	9E-04	2E-04
Panel B: Financial Integration Measurement Statistics							
$\emptyset_{min}$	0.116	0.103	0.098	0.116	0.098	0.003	0.075
$\emptyset_{max}$	0.889	0.913	0.977	0.903	0.9	0.901	0.9
$\emptyset_{moy}$	0.663^{+++}	0.651^{+++}	0.578^{+++}	0.633^{+++}	0.601^{+++}	0.457^{+++}	0.448^{+++}
Std.dev	0.7868	0.00674	0.0089	0.0104	0.00747	0.0011	0.00015

****, **, *: significant degree at 1%, 5% and 10%.*

$^{+++}$, *Indicates that the degree of integration is significantly different from zero according to a Student's t test with two degrees of freedom.*

This table reports the estimation results for the financial integration metrics.. $\emptyset_{min}$, $\emptyset_{max}$, and $\emptyset_{moy}$ show the maximum, minimum and average degree of integration respectively. The robust standard deviations are indicated by the Std.dev.

According to the estimation results reported in Table 1 panel A, the dynamics of financial integration in our sample is explained especially by the differential between the local interest rate and that of the US and the differential between the local inflation rate and that of the US.

According to the statistics (panel B), Turkey and Tunisia have the lowest degree of integration with values of 0.448 and 0.457 respectively. They are the least integrated countries in the world market as well as the Jordanian market with a level equal to 0.578.

In contrast, Egypt has the highest average level of financial integration with a value of 0.663. After that, we find the Gulf countries Emirates (0.651) and Saudi (0.601) and Morocco with a value of 0.633.

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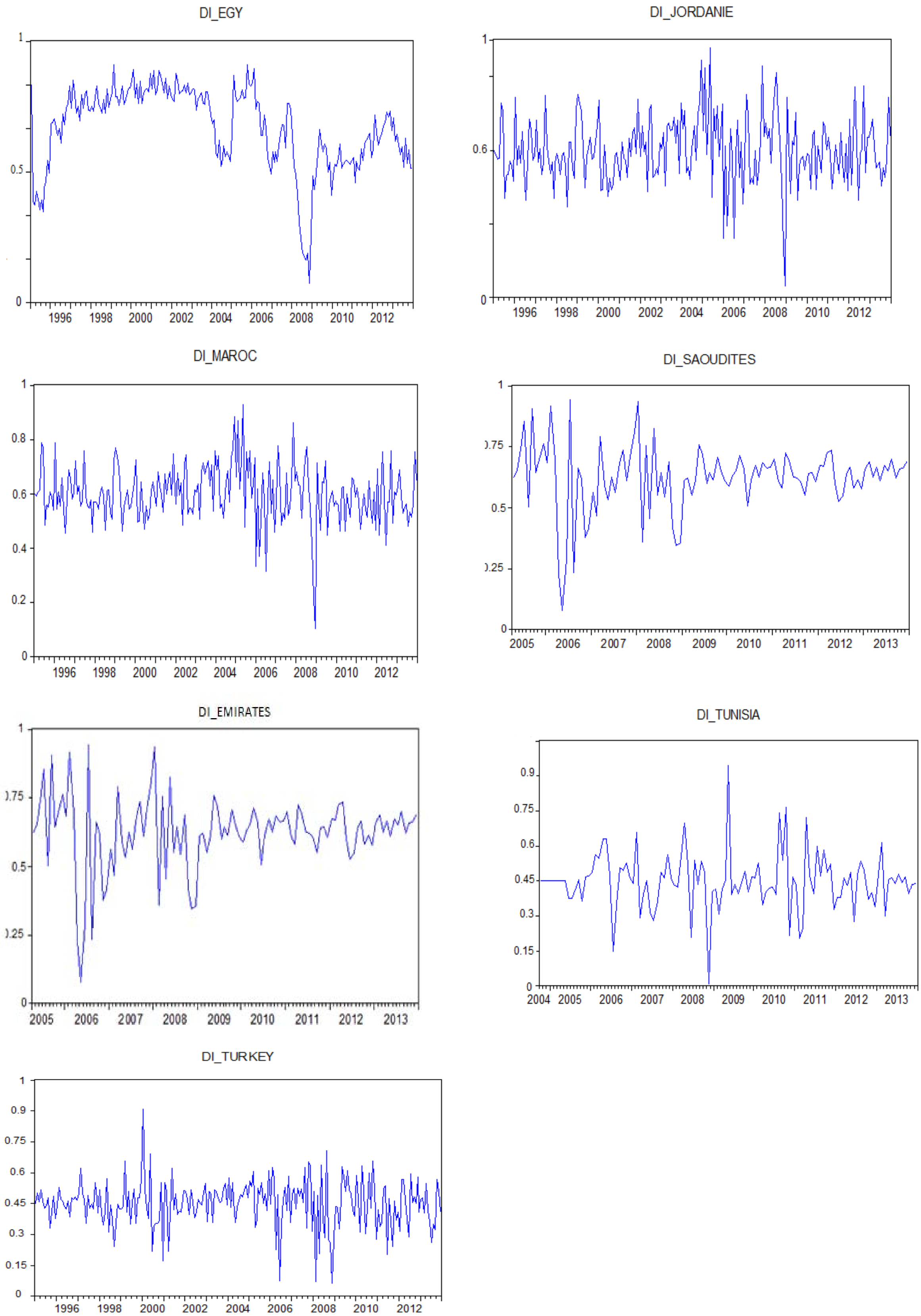
Our results at this stage are close to the results of Khaled Guesmi et al (2014) who studied the financial integration process of 4 countries in the MENA region (Turkey, Israel, Jordan and Egypt), they also found that Egypt the most integrated market and Jordan is the most segmented.



Graphic 1: The Evolution of the Level of Financial Integration

Graphic 1 traces the evolution of the level of financial integration of seven MENA markets with the global market and shows that this integration is not homogeneous. According to the chart, Egypt is the most integrated market with a threshold of 85% during the period 1998-2000, after which the level dropped to around 70% for the rest of the period.

For the Emirates, their degree of integration with the global market has experienced two peaks during the year 2005 and the year 2010 with a level of 90%. The same thing for Saudi Arabia has experienced a financial integration rate between 2006 and the end of 2007 with a value that reaches a threshold of 85%.

This upward trend can be explained by the increase in investment capital flows to these countries.

Turkey, Tunisia and Jordan show the lowest level of integration with an average rate of 50% during the study period. However, all of the markets studied experienced a considerable drop during the 2007-2008 period.

This decline is due to the impact of the subprime crisis on these markets and on the global market in general.

In sum, an upward trend then is recorded when examining the dynamics of financial integration in MENA markets. In what follows, we will conduct a comparative analysis between financial integration and conditional correlation in order to confirm these results.

ii. *Measure of Integration Versus Conditional Correlation*

Table 3: Statistics of Conditional Correlations

	EGYPT	EMIRATES	JORDAN	MOROOCO	SAUDI ARABIA	TUNISIA	TURKEY
ρ_{min}	0.786	0.397	0.298	0.3	0.177	0.477	0.455
ρ_{max}	0.813	0.925	0.901	0.887	0.947	0.937	0.803
ρ_{moy}	0.801***	0.831***	0.723***	0.697***	0.733***	0.788***	0.701***

ρ max., ρ min. and ρ moyenne mean are the maximum, minimum and mean correlation coefficients, which are obtained from the multiple bivariate DCC-GARCH processes.
**** indicates that the coefficient in question is significantly different from zero.*

The purpose of correlation estimation is to provide conditional investors with a complete picture of the actual financial and economic situation in each market.

Since the correlations approach is a technique for measuring financial integration that has been applied by previous works "Longin and Solnik (1995), Kroly and Stulz (1996), Manuel and Croci (2004). However, the appeal to the simple calculation of conditional correlations does not allow us to affirm this purpose, which justifies the use of instrumental variables of financial integration "Dumas et al (2006), Carrieri et al (2007) ".

The examination of this observation is presented in Table 6, which compares the integration index of each local market to its conditional correlation with the world market. Then the analysis of the statistics shows us that the conditional correlations in sum are more important in terms of values compared to the financial integration index.

Egypt has an average correlation coefficient of 0.801 against an average degree of integration 0.663. Similarly, for Emirates, Jordan, Saudi Arabia, Tunisia and Turkey.

However, an almost small gap is observed for Morocco 0.697 against 0.633.

To summarize, the dynamics of conditional correlations show an overestimation of the degree of integration of the markets studied, so our results confirm the questioning of the relevance of the correlation technique as an index of financial integration.

IV. Conclusion

The conclusions drawn from the literature indicate that the framework of financial crises, which is characterized by strong interdependence between financial markets and high volatility, is a major concern for the investor seeking international portfolio diversification.

Thus, with the growth of co-movements between developed and emerging markets and the frequent emergence of financial crises that characterize East Asia, Latin America and Eastern Europe, the investor should target other emerging markets such as MENA countries.

The appreciable profits realized by the strategy of international portfolio diversification have been detected by the works of Markowitz (52), Grubel (1968), Levy and Sarnat (1972), Solnik (1974) and Hilliard (1979).

In addition to these classic works, a group of studies have explored the benefits of portfolio diversification among developed markets as well as emerging countries such as Harvey (91), Campbell and Hamao (1992), Odier and Solnik (93), Solnik (95) Gerke et al (2005), Markellos and Siriopoulos (1997), Rezayat and Yavas (2006), Chiou (2008), Chonghui jiang et al (2010).

During periods of financial crisis the results found by several studies question the effectiveness of international diversification strategy. Garnant (1998) Schwebach et al (2002) Middleton et al (2008), Robert G. Bowmana, Kam Fong Chan and Matthew R. Comer (2010) RG Bowman et al (2010) Robert vermenh (2011).

For the MENA region the axis of work that has been conducted is oriented towards the objective of seeking opportunities of international diversification for the international investor in these markets following the example of Darrat et al (2000) Abraham et al (2001) 2003), Assaf Simon Neaime (2005) Thomas et al (2005 (2007), Cheng et al (2010 Mansourfour et al (2010) S. Neaime (2012) Graham et al (2013) Houseyin et al (2013), Mehmet Balcilar et al (2015).

However, the classical and recent works on this topic there in times of crisis and non-crisis have carried some limitations in their basic strategies. Indeed, the assumption of the absence of hedging to international investment has made ignore the exchange rate risk in the modeling as well as the local risk.

In addition, most of the works have adopted only the assumption of perfect financial integration in the financial markets when studying the expected gains from international diversification.

In this regard, our contribution to the literature has sought to test a conditional version of CAPMFI that includes both in addition to global market risk, foreign exchange risk and local market risk in order to identify the potential of diversification that offers MENA countries for investors and their significance in times of crisis with a consideration of the specification of degree of integration of markets studied.

Then, our results indicated that the anticipated gains from diversification sought in MENA markets are present and significant during the study period with temporary absence during the mortgage crisis phase for all the studied markets and during any period of political disturbance, the case of revolution for Egypt and Tunisia.

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The Impact of Solvency Risk and Asset Quality Risk on the Asset Size of Commercial Banks (An Applied Study on Samples of Commercial Banks Registered on the Iraqi Stock Exchange 2011-2020)

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Abstract- Assets are economic resources owned by a bank, in the form of tangible or intangible properties that are suitable for repaying debts. In other words, assets are those that can be easily converted into cash within a specific time period. Bank assets must be hedged against numerous risks. This study aims to investigate the impact of solvency risks and asset quality risks on the assets of commercial banks by measuring and analyzing the identified study variables. This study addresses the problem of asset loss in commercial banks, whether fixed or liquid, and offers solutions towards attracting prospective investors and retaining current ones via asset preservation and increment. Researchers can also benefit from this study in terms of variable measurements and key concept identification. The study samples entailed the Commercial Bank of Iraq (BCOI) and the National Investment Bank (BNOI) over the study period from 2011 to 2020.

Keywords: risk solvency, asset quality risk, and commercial banks.

GJMBR-D Classification: *UDC: 336.71, 336.713, 336.717*

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Abstract- Assets are economic resources owned by a bank, in the form of tangible or intangible properties that are suitable for repaying debts. In other words, assets are those that can be easily converted into cash within a specific time period. Bank assets must be hedged against numerous risks. This study aims to investigate the impact of solvency risks and asset quality risks on the assets of commercial banks by measuring and analyzing the identified study variables. This study addresses the problem of asset loss in commercial banks, whether fixed or liquid, and offers solutions towards attracting prospective investors and retaining current ones via asset preservation and increment. Researchers can also benefit from this study in terms of variable measurements and key concept identification. The study samples entailed the Commercial Bank of Iraq (BCOI) and the National Investment Bank (BNOI) over the study period from 2011 to 2020. The study employed the descriptive analytical method in describing, measuring and analyzing the data derived from actual financial data available in search for sample pools. The data analysis was subsequently carried out using the SPSS version 26 program. This study reached the conclusion that solvency risks generally have a negative association with the size of assets, while asset quality risks have a positive and direct relationship with the size of assets. The study then offered several recommendations, including that commercial banks should prevent violations and reduce non-performing loans, as well as ensure on-time loan repayments with benefits, thus raising their rating. In addition, commercial banks should work to obtain the expected returns or benefits on an ongoing basis, and increase the size of their assets. Addressing customer inquiries in a timely manner would also ensure customer satisfaction.

Keywords: risk solvency, asset quality risk, and commercial banks.

I. Introduction

Banks are closely linked to economic growth, accelerating it through the mediating role of the financial services they provide. Therefore, the stability of the banking sector is a precondition for economic growth and firmness. The sector's stability depends on the size of its assets which in turn is determined by profitability and capital adequacy as employed in its secured loans, thus leading to greater investments (Ekinci & Poyraz, 2019).

The financial stability of the economy depends to a large extent on the stability and flexibility of the banking system. To achieve banking stability, banks have to maintain high-quality banking assets that help in the achievement of a similar volume of assets. Failure to ensure bank stability can cause financial fragility and may lead to crisis scenarios in the event of market illiquidity and/or bank contagion (Velliscig et al., 2021).

The banking sector is considered one of the most important economic sectors and the most sensitive to changes, which in turn exposes it to various risks due to its dynamic structure and the complex nature of the economic environment. The risks faced by banks can be classified into several categories including solvency risks, asset quality risks, and others (Larya & et al., 2016). The main source of income for the banking sector generally consists of loans granted by commercial companies and banks, which come along with solvency risks and asset quality risks. The Basel identifies the asset quality risks of the Banking Supervision Committee, including the possibility of partial or total loss of the loan outstanding due to failure to repay in a timely manner. An increase in asset quality risk increases the marginal cost of debt and equity, and subsequently the cost of bank financing. As the bank's exposure to asset quality risks increases, the tendency for it to experience financial crisis also heightens (Afriyie & Akotey, 201).

The most prominent of these risks are those related to financial solvency and asset quality owing to the internal banking system which can be controlled and of which can increase or decrease the bank's asset size. This study hence focuses on the impact of these risks on the asset size of commercial banks over the 2011-2020 period. Accordingly, the theoretical underpinning of this study incorporates the most important concepts of the study variables. Related mathematical equations and the SBSS program output were used to determine the impact of those risks on the banks' asset size so as

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to address the research problem and achieve the research objective. More specifically, these were achieved by measuring the relationship between the independent and dependent variables, testing the hypotheses, and drawing the key conclusions and recommendations.

II. Review of Literature

a) Solvency Risk

i. The Concept of Solvency Risk

Financial solvency refers to the ability and durability of the bank capital in facing the failure of investment operations and the absorption of risks, including non-payment risk and investment value depreciation risk (Gatzert, 2018: 3). Solvency in finance generally refers to the ability the bank's revenues, including its return on investment, to cover various costs (Topak et al., 2017: 576). It also entails the bank's ability to fulfill various obligations without resulting in default and bankruptcy. To do so, the banks need to have sufficient assets which is represented by their ability to pay off due obligations. A bank is deemed to be financially insolvent when its usage exceeds the size of its obligations, leading to its inability to fulfill those obligations (Mehrara et al., 2014: 29). This occurs when the market value of the bank's assets falls to a level lower than the market value of its liabilities, i.e., even after liquidating all of its assets, it is still not able to meet all its liabilities thus leading to the loss of its depositors (Odekin et al., 2019: 109).

b) Asset Quality Risk

i. Asset Quality Concept

The quality of assets is determined by the assessment of credit risks such as those related to investment portfolios and loans (Boateng, 2019: 44). The extent to which the management is effective in monitoring credit risk can influence the credit rating. Many factors are taken into consideration when evaluating the quality of assets, including whether the portfolio is adequately diversified, the established rules and regulations to reduce credit risk, the operational efficiency, and so on (Alamirew, 2015: 15).

c) Asset Size

i. The Concept of Asset Size

Assets entail the money and resources owned by the bank at a specific time. Most banks rely on assets for the purpose of obtaining internal revenues in the future (Alnakee et al., 2022: 147). This includes the commercial banks' use of their resources (Gibson, 2014: 228) including loans and financial investments. In general, these are expected to result in economic benefits, owned or controlled by the corporation as a result of various events (Clark et al., 2012: 8). The main hypothesis of this research is that "there is no significant relationship between solvency risk and asset quality risk with asset size". This hypothesis is further divided into two sub-hypotheses as follows:

H1: There is no significant relationship between solvency risk and the asset size of commercial banks.

H2: There is no significant relationship between asset quality risks and the asset size of commercial banks.

III. Research Methodology

The study sample consists of two commercial banks listed on the Iraqi Stock Exchange namely the Commercial Bank of Iraq and the National Investment Bank. The study period was between 2011 and 2020. Data collection was conducted using the deductive method, focusing on journals and periodicals. The inductive method was also employed focusing on the final accounts of the sampled banks, involving the usage of mathematical equations for measuring the independent variable (credit risk) and dependent variable (profit quality). Next, statistical analysis was employed to determine the relationship between the variables, followed by the hypotheses testing.

IV. Measuring Variables

a) Measuring Solvency Risk

The financial solvency of a bank is linked to its capital adequacy, as the capital adequacy ratio is one of the most important financial and technical indicators for the financial sector and of which serves as a safety valve for protecting the depositors' money and enhancing investor confidence (Mashkour & Fullyh, 2020: 5028). A higher capital adequacy enables the bank to better maintain its solvency, protect its depositors, and increase the confidence of creditors, depositors and supervisory authorities (Psorn, 2013: 20). The capital adequacy ratio is used to determine the solvency of banks (Aspal et al., 2019: 170). It is calculated in accordance with the requirements of the Basel Committee (III) using the following equation (Mashkour & Fullyh, 2020: 5028):

$$CA= \;=\frac{TC}{RWA\,(CR+MR+OR)}\times 100\% = 8\%$$

Since:

Abbreviation	Full English Term
CA	Capital Adequacy Ratio
TC	Total Capital
RWA	Risks Weighted Assets
MR	Market Risk
CR	Credit Risk
OR	Operational Risk

The total capital can be calculated by summing both the base capital and the auxiliary capital according to the following equation (Agyapong et al., 2019: 4):

$$TC=CCT1+SCT2$$

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Since:

Abbreviation	Full English Term
TC	Total Capital
CCT1	Tier Capital Core1
SCT2	Supplementary Capital Tier 2

Assets weighted with credit risks is calculated by gathering the assets weighted with credit risks inside and outside the balance sheet, according to the following equation (Salgotra et al., 2015: 57):

$$RWA\ (CR) = WBCRWA + OBCRWA$$

Since:

Abbreviation	Full English Term
CR (RWA)	Risk Weighted Assets
WBCRWA	Within-Balance Credit Risk Weighted Assets
OBCRWA	Off-Balance Credit Risk Weighted Assets

In keeping with the international standards for banking regulation, the Central Bank of Iraq has developed a mechanism for calculating solvency risks. Banks operating in the Iraqi banking sector, except for foreign bank branches, must maintain a percentage of solvency risk not less than 10%. This ratio represents the relationship between the capital base and the assets weighted with specific weights to offset credit risk and risk laborer and market risks (Central Bank of Iraq, 2018: 3).

b) Measuring the Quality of Assets

Credit risk can be interpreted in its broadest sense as the risk of financial loss due to the borrower's failure to cover his obligations. Among the bank's activities in providing credit and others are trading activities and capital markets (Mashkour & Fullyh, 2020: 5031). In most cases, the ratio of loan loss provisions to total loans is used as a variable substitute for measuring credit risk (Alnakee et al., 2022: 147).

Several studies had measured the quality of assets by dividing the provision for loan losses by the total loans, which represents the ability of banks to bear losses from bad loans (Mashkour & Fullyh, 2020: 5031). This study measures the quality of assets by using the following equation (Ekinci et al., 2019: 981):

$$NPLLR = \frac{NPL}{L} \times 100\%$$

Since:

Abbreviation	Full English Term
NPLLR	Ratio Non-Performing Loans to Loans
NPL	Non-Performing Loans to Total Loans
L	Laws

A high ratio signifies a decrease in the quality of assets, which is reflected in the asset size of the bank, due to the increase in the volume of loans subject to non-payment. A low ratio indicates high quality assets; in short, a lower ratio is better for the banks and the banking establishment (Sufian, 2011: 49).

c) Measurement of Asset Size

The assets are arranged in the balance sheet according to the degree of their liquidity. The result for the cycle is determined by the difference between the assets and liabilities in the balance sheet. In the case of dividing the assets from the liabilities at the end of the period, additional assets are realized with the same primary resources. This addition expresses the profits and is recorded positively under liability. To balance it out, it is recorded under negative assets. When the opposite happens, it indicates that the company has the same requirements priority finance less than the assets. This difference expresses the loss, as it is recorded under assets as positive and under liabilities as negative. The size of the assets can be measured according to the equation below (Lucy et al., 2018: 22):

$$AS = L + PR$$

Since:

Abbreviation	Full English Term
AS	Asset Size
L	Liabilities
PR	Property Rights

V. Results and Discussion

a) Quantitative Analysis of the Research Variables

i. The Results of Measuring Solvency Risk (Capital Adequacy)

Capital Adequacy Ratio (CAR) is calculated by dividing the total capital in the banks by the total risk-weighted assets using the following equation:

$$CAR = TC/RWA \times \%100$$

Since:

TC= Total Capital

RWA= Total risk weighted assets

Table 1 clarifies the calculation of the capital adequacy ratio for banks, based on the equation above:

Table 1: Comparison of the Capital Adequacy Ratio (CA) Measurement Results (million dinars)

T	Value / Year	TC (1)	RWA (2)	CA (3) = (1/2)
A	Commercial Bank of Iraq			
1	2011	116695	949447072.984	0.012
2	2012	158239	1794987.864	0.088
3	2013	173680	730223.91	0.238
4	2014	232816	76423421.25	0.003
5	2015	322841	3679027.76	0.009
6	2016	309150	2176314.534	0.142
7	2017	292404	180731.682	0.618
8	2018	302004	540572.994	1,789
9	2019	293419	645867.324	2.183
10	2020	281900	776343.312	2.753
Average				0.7835%
B	Al Ahly Investment Bank			
1	2011	52914	164429.46	0.322
2	2012	105417	137403.108	0.767
3	2013	154660	110544.044	1.400
-4	2014	168541	486905.94	0.346
5	2015	286242	155885	1.836
6	2016	294108	149002	1.974
7	2017	306172	153412	1.995
8	2018	312819	165866	1.9
9	2019	269050	90813	2.964
10	2020	274295	189152	1.5
Average				1.5004%

Source: Prepared by the Researcher based on the Final Accounts of the Sampled Banks

As illustrated in Table 1, the capital adequacy ratio (CAR) for the sampled banks varies from year to year, due to the variance in the total capital and the increase or decrease in the risk-weighted assets in relation to the total capital. This ratio shows the extent to which the banks are able to use the total capital in facing losses that may occur as a result of dealing with risky assets; this ratio is called the margin of safety ratio (security margin). The decrease in this ratio indicates a rise in banking risks and vice versa, i.e., an inverse relationship. In addition, there is a direct relationship between the increase in capital adequacy and the increase in total capital. The capital adequacy ratio for the Commercial Bank of Iraq and the Al-Ahly Bank for Investment for the entire research period is greater than the minimum permissible percentage (i.e., 8%) under the Basel Committee Requirements (III). As noted, the ratios increased significantly in the sampled banks, indicating that the banks maintain their financial resources as a result of the risks involved in their investment activities, which prompted them to significantly increase the size of their capital relative to the risk-weighted assets. In short, there is an inverse relationship between the capital adequacy ratio and the risk-weighted assets, whereby an increase in risk-weighted assets indicates a decrease in the capital adequacy ratio and vice versa.

Table 1 shows that the capital adequacy ratio for the Commercial Bank of Iraq reached a higher limit with a percentage of (2.753) in year 2020, at a minimum of (0.003) in year 2014 and an annual average of (0.7835). The increase in the adequacy rate was due to two main reasons: 1) the continuous growth in capital, and 2) the investment policy of the bank, i.e., avoiding risky investments and directing most of its financial resources to invest in risk-free treasury transfers. As for the National Bank for Investment, the capital adequacy ratio varied in growth for the period between 2011 and 2020. This is due to the continuous growth in total capital for the mentioned period, as the capital adequacy ratio reached a higher limit by (2.964) in year 2019 with a minimum of (0.322) in year 2011 and an annual average of (1.5004). The high adequacy ratio was due to two main reasons: 1) the continuous growth in capital, and 2) the investment policy of the bank, i.e., by avoiding risky investments and directing most of its financial resources to invest in balances in the absolute account with the Central Bank, which is free of risks.

In order to assess the capital adequacy of the sampled banks, the general average of the capital adequacy ratio in the Commercial Bank of Iraq during the research period was (0.7835). This ratio is detrimental as a result of the inverse relationship between the capital adequacy ratio and the financial risks. The Al-Ahly Bank for Investment had the highest average percentage during the research period (1.5004). This increase in capital adequacy ratio above the minimum limits set by the Basel Committee (III) requirements indicates that the banks should follow a conservative investment and credit policy in terms of employing their financial resources. In addition, it expresses the strength of the financial position of the sampled banks in terms of the ability of their capital in facing the risks that they may be exposed to, as well as their ability to cover the possible losses.

ii. *Assets Quality Analysis of the Sampled Banks*

This percentage indicates the poor quality of the assets of the bank and vice versa, that is, when the ratio of non-performing loans to the total loans decreases, the quality of the assets of the bank is good, as calculated using the following equation:

$$AQ = NPL/TL^{*}\ \%100$$

Since:

NPL= bad loans

T= total loans

Table 2 below shows the calculation for the asset quality of the sampled banks using the above equation:

Table 2: Comparison of the Asset Quality Risk Calculation Results (million dinars)

T	Value / Year	NPL (1)	T (2)	AQ (3)= (1÷2)
A	Commercial Bank of Iraq			
1	2011	13485	35965	0.37
2	2012	12060	82914	0.15
3	2013	428	2311	0.19
4	2014	1004	3956	0.25
5	2015	2525	7154	0.35
6	2016	8632	9102	0.95
7	2017	19468	29,245	0.665
8	2018	20314	30932	0.65
9	2019	13950	31242	0.44
10	2020	6707	11447	0.59
Average				0.4605%
B	Al-Ahiyinvestment Bank			
1	2011	11910	36973	0.322
2	2012	8828	49054	0.248
3	2013	9129	67493	0.186
4	2014	79,593	115538	0.689
5	2015	176467	165327	1.067
6	2016	81611	184042k	0.443
7	2017	5040	124683	0.04
8	2018	5057	134356	0.037
9	2019	4018	76828	0.052
10	2020	7585	168965	0.045
Average				0.3129%

Source: Prepared by the Researcher based on the Final Accounts of The sampled Banks

It is clear from the table above that the quality of the assets in the sampled banks varies from year to year. This is due to the increase in non-performing loans in addition to the decrease in total loans relative to the non-performing loans. The ratio of non-performing loans to total loans shows the quality of the bank's assets, and subsequently the ability of banks in managing their financial assets. The high ratio of non-performing loans to total loans is evidence of the high percentage of amounts at risk and the failure to collect them. Meanwhile, the decrease in this percentage indicates that the loans had been collected according to their maturity dates. Hence, it is clear that there is an inverse relationship with the quality of assets and a positive relationship with non-performing loans. This means that the ratio of non-performing loans to total loans rises as a result of the rise in non-performing loans, while the rise in the ratio of non-performing loans to total loans is due to the bank's low asset quality. Table 3 indicates the classification of each of the sampled banks:

Table 3: Asset Quality Classification of the Sampled Banks

Bank	Quality of Realized Assets %	Asset Quality Ratio for Rating Arbitration	Overall Rating Percentage	Rating Score
Al-Ahly Investment Bank	4.34%	Less than 5	Less than 20	Strong
		From 5 to 15	From 50 to 20	Patients
Baghdad Bank	34.25%	From 35 to 15	From 80 to 50	Good
Commercial Bank	54%	From 60 to 35	From 100 to 80	Borderline
		More than 60	More than 100	Unsatisfactory

It is clear from the table that the ratio of the quality of assets is different for the Commercial Bank of Iraq. The quality of the assets reached (0.665%) in year 2017, which is unsatisfactory, with a minimum of (0.15) in year 2012 and an annual average of (0.4605%). The increase in this ratio during the research period indicates the low asset quality of the bank. It is noted that the ratio of non-performing loans to total loans had exceeded the set threshold of 60%. This indicates a bad loan, which leads to large losses in the bank's capital. Therefore, there is a need to reduce the volume of non-performing loans. As for the National Investment Bank, it reached the highest percentage of (0.689) in year 2015. The lowest level of (0.04) was recorded in year 2018, with an average of (0.3129). This indicates an unsatisfactory loan, thus requiring the bank to reduce its volume of non-performing loans. The risk quality of the sampled banks' assets was evaluated by comparing the general average. The general average for the Commercial Bank of Iraq is (0.4605), followed by the National Investment Bank at (0.3129), and the Bank of Baghdad at (0.235) which is the lowest degree of non-payment risk.

iii. *Analysis of Asset Size for the Sampled Banks*

The size of a bank is often measured by the amount of assets that it owns. As an increase in the commercial banks' volume of assets increases their ability to invest, the increase in the volume of the banks' assets is typically expected to result in an increase in their profitability. In the event that the size of the commercial banks is measured with the property rights they own (paid capital, reserves and undistributed profits), the banks with larger property rights have greater funds available to them hence increasing their ability to invest. In addition, the increase in property rights increases the confidence of investors, which may be reflected in the volume of customer deposits. Thus, by increasing the financial leverage, the rate of return on equity can be maximized. The following equation was adopted to measure the size of the commercial banks' assets:

$$AS = L + PR$$

Since:

Abbreviation	Full English Term
AS	Asset Size
L	Liabilities
PR	Property Rights

Table 4 presents the results of the basic capital measurements of the sampled banks:

Table 4: Comparison of the Asset Size Measurements (million dinars)

T	Value / Year	L (1)	PR (2)	AS (3) 1)=+2)
A	Commercial Bank of Iraq			
1	2011	109624945	94538893	204163838
2	2012	112261767	135184629	247446396
3	2013	160236268	143200259	303436527
4	2014	138264072	196579178	334843250
5	2015	164887327	284385241	449272568
6	2016	140687855	274201298	414889153
7	2017	141878	281941	423819
8	2018	168808	291809	460617
9	2019	159987	283958	443945
10	2020	177848	271929	449777
Average				195582989%
B	Al-AhlyInvestment Bank			
1	2011	546448	529135	1075583
2	2012	792475	105417	.897892
3	2013	182588	154660	337248
4	2014	542237446	168480	542405926
5	2015	614971643	263429	615235072
6	2016	534745388	260539	535005927
7	2017	291008	287839	578847
8	2018	317509	285705	603214
9	2019	267182	257766	524948
10	2020	276161	256642	532803
Average				169719746%

Source: Prepared by the Researcher based on the Final Accounts of the Sampled Banks

It is clear from the tables above that the sampled banks' size of assets as measured by the total liabilities and the right of ownership varies in proportion from year to year (449272568). The highest ratio is recorded in year 2015, with a minimum of (423819) in year 2017 and an annual average of (195582989). The highest limit was recorded by the National Investment Bank (615235072) in year 2015, with a minimum of (524948) in year 2019 and an annual average of (169719746).For the purpose of evaluating the volume of assets in the sampled banks during the research period, the general average of the sampled banks was used. The general average for the Commercial Bank of Iraq is (195582989), followed by the National Investment Bank at (169719746) which is the lowest percentage.

b) Statistical Analysis of the Baath Sample Variables

i. Statistical Analysis of the Commercial Banks

General Statistics

With the goal of identifying the general characteristics of the studied data, Table 5 presents the general statistics depicting the lowest and highest values, the arithmetic mean, and the standard deviation for all the studied variables:

Table 5: General Statistics for the Variables

Descriptive Statistics					
	N	Minimum	Maximum	Meaning	Std. Deviation
x1	10	0.003	2.753	0.78350	1.047378
x2	10	0.150	0.950	0.46050	0.251401
Y1	10	423819	449272568	195582989	182135146.6

Based on the table above, the variable of Solvency Risk x1 recorded a minimum value of (0.003) and a maximum value of (2.753). Its arithmetic mean recorded a value of (0.78350) and standard deviation of

(1.047378). Meanwhile, Asset Quality Risk X2 recorded a minimum value of (0.150) and maximum value of (0.950). Its arithmetic mean is (0.46050) with a standard deviation of (0.2514010). Asset Size recorded a minimum value of (423819) and maximum value of (449272568). Its arithmetic mean is (195582989) with a standard deviation of (182135146.6).

ii. *Relationships between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2, and y1)*

The correlations between the independent variables and the dependent variable are henceforth discussed:

1. Correlations between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2 and y1)

The researcher developed null and alternative hypotheses for the purpose of testing the significance of the association between the variables, as follows:

The First Null Hypothesis:

H0: There is no significant correlation between Solvency Risk and Asset Size (x1 and y1).

Against the Alternative Hypothesis:

H1: There is a significant correlation between Solvency Risk and Asset Size (x1 and y1).

The Second Null Hypothesis:

H0: There is no significant correlation between Asset Quality Risk and Asset Size (x2 and y2).

Against the alternative hypothesis:

H1: There is a significant correlation between Asset Quality Risk and Asset Size (x2 and y1).

For the purpose of verifying and testing the above hypotheses, the researcher used the statistical program SPSS version 26 to obtain the correlation values and their statistical significance, as shown in Table 6 below:

Table 6: Correlation between the Two Independent Variables and Variable y1

Correlations			
		X1	X2
Y1	Pearson Correlation	- 0.797**	- 0.229
	Sig. (2-tailed)	006 0	.525 0
	N	10	10
**. Correlation is significant at the 0.01 level (2-tailed).			

The table above shows that Solvency Risk (x1) and Asset Size (y1) have a significant inverse correlation (-0.797) below the significance level of 5%. Meanwhile, Asset Quality Risk (x2) and Asset Size (y1) have a non-significant correlation (-0.229) below the significance level of 5%. From the foregoing, it appears that Asset Size has a higher correlation with Solvency Risk than with Asset Quality Risk.

2. The Effect and Significance of the Relationship between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2, and y1)

The researcher investigated the effect of the independent variables on the dependent variable based on the null hypotheses developed:

The First Null Hypothesis:

H0: Solvency Risk (x1) has no statistically significant effect on Asset Size (y1).

Against the Alternative Hypothesis:

H1: Solvency Risk (x1) has a statistically significant effect on Asset Size (y1).

The Second Null Hypothesis:

Asset Quality Risk (x2) has no statistically significant effect on Asset Size (y1).

Against the Alternative Hypothesis:

H1: Asset Quality Risk has a statistically significant effect on Asset Size (y1).

The hypotheses testing was conducted using the SPSS program. The results are summarized in Table 7 below:

Table 7: The Effect of the Independent Variables (x1 and x2) on the Dependent Variable (y1)

Dependent Variable	Independent Variable	The Coefficient of Determinatior	Corrected Determinatio n Coefficient	Test Value	Morale Test	Impact Parameter Value	Test Value	Moralizing t test	Moral of the Variable
Y1	X1	.64 0	.59 0	13.949	006 0	- 0.797	-3.735	006 0	The variable is inverse
	X2	.05 0	.05 0	0.441	.525 0	- 0.229	-0.664	.525 0	The variable is not significant

From the table above, the coefficient determination for Solvency Risk (x1) is 0.64 with a corrected determination coefficient of 0.59. This value indicates that the regression model used by the researcher explains 64% of the total differences. Meanwhile, the value of the test F is 13.949 moral value sig. equal to 0.006, below the significance level of 5%. This indicates the significance of the model to trace Solvency Risk (x1) on Asset Size (y1). Additionally, the effect parameter value of -0.80 is equal to -3.735, indicating an inverse moral significance, since the value of the moral sig. is below the significance level of 5%. Thus, it can be concluded that a one-unit increase in Solvency Risk (x1) leads to a decrease in Asset Size (y1) by 0.80. The moral value sig. to trace Asset Quality Risk (x2) on Asset Size (y1) is greater than the significance level of 5%. This means that Asset Quality Risk (x2) has no statistically significant effect on Asset Size (y1).

iii. *Statistical Analysis for Al-Ahly Investment Bank General Statistics*

The general characteristics of the studied data are presented in Table 8 below, detailing the lowest and highest values, the arithmetic mean, and the standard deviation for all the studied variables:

Table 8: General Statistics for the Variables

Descriptive Statistics					
	N	Minimum	Maximum	Meaning	Std. Deviation
X1	10	0.322	2.964	1.50040	0.826813
X2	10	0.037	1.067	0.31290	0.339587
Y1	10	337248	615235072	169719746	273029330.5

It can be seen from the table above that Solvency Risk (x1) has a minimum value of (0.322) and maximum value of (2.964). Its arithmetic mean is (1.50040) with a standard deviation of (0.826813). Meanwhile, Asset Quality Risk (x2) has a minimum value of (0.037) and maximum value of (1.067). Its arithmetic mean is (0.31290) with a standard deviation of (0.339587). As for Asset Size (y1), it has minimum value of (337248) and maximum value of (615235072). Its arithmetic mean is (169719746) with a standard deviation of (273029330.5).

iv. *Relationships between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2, and y1)*

The correlations between the independent variables and the dependent variable are henceforth discussed:

1. Correlations between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2, and y1)

The researcher developed null and alternative hypotheses for the purpose of testing the significance of the association between the variables, as follows:

The First Null Hypothesis:

H0: There is no significant correlation between Solvency Risk and Asset Size (x1 and y1).

Against The Alternative Hypothesis:

H1: There is a significant correlation between Solvency Risk and Asset Size (x1 and y1).

The Second Null Hypothesis:

H0: There is no significant correlation between Asset Quality Risk and Asset Size (x2 and y1).

Against the Alternative Hypothesis:

H1: There is a significant correlation between Asset Quality Risk and Asset Size (x2 and y1).

For the purpose of verifying and testing the above hypotheses, the researcher used SPSS version 26 to obtain the correlation values and their statistical significance, as shown in Table 9 below:

Table 9: Correlations between the Independent and Dependent Variables

Correlations			
		X1	X2
Y1	Pearson Correlation	-0.082	.883** 0
	Sig. (2-tailed)	0.821	.001 0
	N	10	10
**. Correlation is significant at the 0.01 level (2-tailed).			

The table above shows that Solvency Risk (x1) and Asset Size (y1) have a significant and inverse relationship (-0.082) with a significance level below 5%. Meanwhile, Asset Quality Risk (x2) and Asset Size (y1) has a significant direct correlation (0.883) with a level of significance below 5%.

From the foregoing, it appears that Asset Size (y1) has a higher correlation with Asset Quality Risk (x2) than with Solvency Risk (x1).

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2. The Effect and Significance of the Correlation between Solvency Risk, Asset Quality Risk, and Asset Size (x1, x2, and y1)

The researcher investigated the effect of the independent variables on the dependent variable asset size based on the developed null hypotheses below:

The first null hypothesis:

H0: Solvency Risk (x1) has no statistically significant effect on Asset Size (y1).

Against the Alternative Hypothesis:

H1: Solvency Risk (x1) has a statistically significant effect on Asset Size (y1).

The second null hypothesis:

H0: Asset Quality Risk (x2) has no statistically significant effect on Asset Size (y1).

Against the Alternative Hypothesis:

H1: Asset Quality Risk (x2) has a statistically significant effect on Asset Size (y1).

The hypotheses testing was conducted using the SPSS program. The results are summarized in Table 10 below:

Table 10: The Effect of the Independent Variables on the Dependent Variable

Dependent Variable	Independent Variable	Coefficient of Determination	Corrected Determination Coefficient	Test Value F	Morale Test F	Impact Parameter Value	Test Value t	Morale sig. t test	Moral of the Variable
Y1	X1	0.007	-0.117	0.054	0.821	-0.082	-0.233	0.821	The variable is not significant
	X2	0.780	0.752	28,323	0.001	0.883	5.322	0.001	The variable is insignificant

It is clear from the results that the value of the moral sig. to trace Solvency Risk (x1) on Asset Size (y1) is greater than the significance level of 5%. This means that Solvency Risk (x1) has no statistically significant effect on Asset Size (y1).

Meanwhile, the coefficient of determination for Asset Quality Risk (x2) is 0.78 with a corrected determination coefficient of 0.75. This indicates that the regression model explains 78% of the total differences. The value of the test F is 28,323 with a moral value sig. equal to 0.001, which is below the significance level of 5%. This indicates the significance of the model for tracing Asset Quality Risk (x2) on Asset Size (y1). The value of the effect parameter is 0.88, while the test value is equal to 5.322. This value indicates direct moral significance, since the value of the morality sig. is below the significance level of 5%. From this, it can be concluded that a one-unit increase in the value of Asset Quality Risk (x2) would result in an increase in Asset Size (y1) by 0.88.

VI. Conclusions and Recommendations

a) Conclusions

Through the results and analysis, a set of conclusions was reached as follows:

1. In the commercial banks, Asset Quality Risk and Asset Size have a non-significant and inverse correlation with a significance level below 5%. While in the National Bank, Solvency Risk and Asset Size have a non-significant correlation below the significance level of 5%, whilst Asset Quality Risk and Asset Size have a morale value below the significance level of 5%.
2. In the commercial banks, Asset Size has the highest correlation with Solvency Risk followed by Asset Quality Risk. While in the National Bank, Asset Size has the highest correlation with Asset Quality Risk followed by Solvency Risk.

b) Recommendations

This study proposes the following recommendations:

1. Commercial banks need to work on eliminating and reducing bad loans. They need to guarantee timely loan repayments along with benefits, which would raise their ratings and increase the size of their assets.
2. Commercial banks should work on increasing their capital and reducing potential asset risks. They need to increase their investments and reduce risks in order to make continuous profits and increases the size of their assets.
3. Commercial banks should have high quality assets to be able to enjoy high ratings and thus increase the size of their assets.

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On Recognition of Contract Asset and Contract Liability in the Financial Statements

By Levan Sabauri, Mariam Vardiashvili & Marina Maisuradze
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Abstract- With the publication of the International Financial Reporting Standard (IFRS) 15 "Revenue from Contracts with Customers", approaches to recognition and methods of measurement of the revenues have changed fundamentally.

The standard considers a contract liability as a reference point for accounting coordinates, for transferring control over an asset (goods or services) and determining the moment of recognition of revenue to the seller.

In the fulfillment of the performance obligations in the contract with the customer, assets or liabilities may arise that are directly related to the performance of the terms of the contract by any of the parties to the contract.

Depending on the situation in terms of the fulfillment of the obligation by the entity and payment by the customer, the entity must reflect this contract in the statement of financial condition in the form of a contract asset or a contract liability

Keywords: contracts; financial reporting; revenue from contracts with customers; contract asset; contract liability.

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ONRECOGNITIONOFCONTRACTASSETANDCONTRACTLIABILITYINTHEFINANCIALSTATEMENTS

Strictly as per the compliance and regulations of:

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Abstract- With the publication of the International Financial Reporting Standard (IFRS) 15 “Revenue from Contracts with Customers”, approaches to recognition and methods of measurement of the revenues have changed fundamentally.

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The article discusses the terms of reflection of a contract asset and a contract obligation in the financial statements, and the difference from such traditional objects of accounting as trade requirements and trade obligations.

The study of a contract asset or contract obligation is important because it improves general purpose financial statements, providing financial information to the users of financial statements that will be useful for making decisions about the supply of resources to a given entity.

The article deals with the opinions and views of various researchers related to this issue.

Methodology: ISSB discussions, guide-recommendation materials of international audit companies (“Big Four”); scientific articles; analysis, systematization and comparison methods.

Keywords: contracts; financial reporting; revenue from contracts with customers; contract asset; contract liability.

I. Introduction

With the publication of the International Financial Reporting Standard (IFRS) 15 “Revenue from Contracts with Customers”, approaches to recognition and methods of measurement of the revenues have changed fundamentally.

The objective of this Standard is to establish the principles that an entity shall apply to report useful information to users of financial statements about total revenue of the entity.

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“By introducing universal criteria for various contracts, IFRS 15 considers more broadly and specifies all possible options for recognizing and evaluating revenue”, which is more accurate and consistent than existing standards. (Vardiashvili, M., Maisuradze, M., 2017)

The published standard not only reflects a new approach to the recognition and measurement of revenues, but also considers as an object of accounting a contract with a customer, which generates rights and obligations with a legal force, the protection of which is provided by the legislation. Depending on the situation in terms of the fulfillment of the obligation by the entity and payment by the customer, the entity must reflect this contract in the statement of financial condition in the form of a contract asset or a contract liability. This in turn requires the introduction of new accounts - “Contract asset” and “Contract liability” into the account plan.

We have studied numerous works of foreign and Georgian scientists in the field of practical application of IFRS 15. In the process of working on this article, from a theoretical, methodological and practical point of view, we relied on available internet sources that deal with the reflection of new elements - Contract liabilities and Contract assets in the financial statements. In addition to certain aspects of scientific justification, we used manual-recommendation materials of international audit companies (“Big Four”).

When drawing conclusions, we used methods of induction, deduction, analysis and synthesis.

The practical aspect of the research results is that the recommendations presented can be used by companies in the process of compiling financial accounting and reporting

II. Main Part

On the conceptual basis of financial statements, income is seen as an increase in assets, which is the result of the supply of goods and services. In these circumstances, accounting procedures are primarily aimed at determining the time and amount of income recognized in accordance with cost accounting. In other words, traditionally in accounting, to determine the time and amount of recognition of an asset, liabilities, income and expenses, a transaction actually completed was used. The process of distributing the results of transactions made between periods was based on two principles (Mariam Vardiashvili, 2022):

- The principle of accrual, which reflects the effects of transactions and other events and circumstances on the economic resources of the accounting unit and the requirements for them in the same periods when this effect occurs, even if the received cash flows and payments are made in another period;
- The principle of prudence, according to which, if the probability of receiving income is low, a reserve is created for expected losses as soon as they become probable.

The moment of recognition and measurement of revenues received from contracts with customers, which is indicated in IFRS 15, is more accurate and unambiguous. “One of the main changes introduced by IFRS 15 is that the entity se must recognize the revenues when it fulfills the performance obligation by transferring the promised goods or services to the customer. The asset is considered transferable when the user gains control over the given asset”. (Sabauri, L., Vardiashvili, M., Maisuradze, M., 2022).

This provision shifts the emphasis of revenue recognition from the transfer of title to the asset to the transfer of control over the assets.

This circumstance substantially changes the traditional concept of recognition of economically justified income.

Introduction of the criterion of control over the object of exchange transaction, for the recognition of income, is not only an economic, but a legal justification, as well.

The contract liability reflects the future transfer of ownership of goods or services (Sabauri, L., Vardiashvili, M., Maisuradze, M., 2022). It is the contract liability that must be ensured by the right to protection. Therefore, the contract liability arising from the terms of the contract must be reflected in the systematic accounting of the unit, it must be a reference point in the accounting coordinates for the transfer of control over the asset (goods or services) and determining the moment of recognition of revenue to the seller (VICTOR S. PLOTNIKOV;OLESYA V. PLOTNIKOVA; ANDREY I. SHEVCHUK, 2015).

Based on the foregoing, it can be said that IFRS 15 establishes the procedure for accounting for an individual contract concluded with a customer. However, if it is more convenient, the entity has the right to use this standard in relation to a portfolio of contracts with similar characteristics, if the entity reasonably assumes that, from the point of view of financial statements, the results of applying this standard to a portfolio will not be substantially different from the result of its application to a separate contracts comprising part of the portfolio.

A contract with a customer is an agreement between two or several parties, a legal document that generates certain rights and obligations in an exchange transaction. Legal protection of contract liabilities and contract rights is provided by the legislation. This is an accounting document containing information about contract liabilities, which reflects the right to receive a contract asset and the contract liability to pay for this asset. In this case, as a rule, the contract itself as a document has no measure of value and is not a commodity, except for financial instruments.

According to Point 9 of IFRS 15: Contract is a legal document by which the parties to the agreement have assumed the obligation to fulfill the contractual conditions and which contains information about new accounting element - contract liabilities, which are subject to accounting, recognition and evaluation in case they meet the criteria provided for by the Standard. Therefore, the contract itself can serve as an object of accounting observation (VICTOR S. PLOTNIKOV; OLESYA V. PLOTNIKOVA; ANDREY I. SHEVCHUK, 2015).

By recognizing contract liability as an object of accounting, one must proceed from the fact that contract liability and contract law are inseparable. The buyer and seller enter the market, usually with the intention of concluding an asset purchase/sale contract. Only by executing (signing) the contract do they receive contractual obligations that determine the transfer of ownership of the asset.

In this case, the market acts as an “intermediary”, a certain institutional environment in which the intentions of the seller and the buyer acquire a legal form, the content of which is filled with contract liabilities secured by legal protection, as reflected in sub-point “a” of Point 9 of IFRS 15:

1. “The parties to the contract have approved the contract (in writing, orally or in accordance with other customary business practices) and are committed to perform their respective obligations” (ISSB, 2023).
   Sub-points “b” and “c” of Point 9 of IFRS 15 can serve as further confirmation of the need to recognize contract liability as accounting object:
2. The entity can identify each party’s rights regarding the goods or services to be transferred;
3. The entity can identify the payment terms for the goods or services to be transferred (ISSB, 2023);

In this case, we are talking about the contractual right to monetary compensation for the transferred goods or services and the contract liability to pay monetary compensation under certain conditions.

It is also worth to note that when it comes to contract liabilities, then, as a rule, this means that the exchange transaction will end in the future.

More clearly and accurately, the need to recognize contract liabilities obligations as accounting articles is indicated in Point 22 of IFRS 15:

At contract inception, an entity shall assess the goods or services promised in a contract with a customer and shall identify as a performance obligation each promise to transfer to the customer either:

1. A good or service (or a bundle of goods or services) that is distinct; or
2. A series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer (ISSB, 2023)

This part of the standard deals with the identification of the performance obligation, i. e. recognition and evaluation of goods or services promised in a contract with the consumer, which must be identified as a duty to be fulfilled, as a promise to transfer goods or services to the consumer (Nicole L. Cade; Lisa Koonce; Kim I. Mendoza, 2019).

According to Article 105 of IFRS 15: "When either party to a contract has performed, an entity shall present the contract in the statement of financial position as a contract asset or a contract liability, depending on the relationship between the entity's performance and the customer's payment. An entity shall present any unconditional rights to consideration separately as a receivable (ISSB, 2023). In fact, this article introduces the terms "Contract Asset" and "Contract Liability". By using these terms they were separated from traditional demands and obligations.

III. Contract Asset

As noted, the contractual asset is separated from the accounts receivable by IFRS 15. In the financial statements, accounts receivable shows the right to unconditional receipt of payment from the buyer, which arose as a result of the delivery of goods or the provision of services. Unconditional in the sense that only time should pass before making a payment (Nadezhda Kvatashidze, Zeinabi Gogrichiani, 2016).

Prior to the publication of IFRS 15, the term "receivables" was the only term used to refer to consumer debt for goods and services received.

Some contracts with the consumer, may contain two or more obligations to transfer goods or services to the consumer.

When fulfilling a single obligation to the buyer, the seller company does not receive an unconditional right to receive money, since it must first meet another obligation. For example, when the delivery of one product in accordance with the concluded contract is subject to payment only after the provision of additional services or only after the delivery of another product. In such cases, under IFRS 15, the seller must recognize the contract asset.

"Contract Asset is an entity's right to consideration in exchange for goods or services that the entity has transferred to a customer when that right is conditioned on something other than the passage of time (for example, the entity's future performance)" (ISSB, 2023)

In addition, contract assets and liabilities can arise from differences between the moments of creation of unconditional rights to recognition, receipts and compensation of income (Katja van der Kuij-Groenberg, Maarten Pronk, 2019).

For example, a company must build a building for a customer under a contract. The project, which has a total cost of 700,000 monetary units, lasts 9 months and includes two reporting periods. It starts on July 1 and should end at the end of March next year. Under the contract, the customer pays the compensation in full when the project is completed and transferred to the customer.

By the end of the first reporting year, the degree of commitment performance was estimated at 60% using the results method, e. Y. The company must recognize income for this period in the amount of 420,000 monetary units. But, not a demand, but a contractual asset will be recognized in the asset, as long as the company does not have the right to an unconditional demand for remuneration until the completion of the project.

Upon completion of the project, the company has the unconditional right to receive compensation at the total cost. Accordingly, in the accounting records, trade accounts receivable in the amount of 700,000 monetary units will be recorded in debit, and income - in credit, in amount of 280,000 monetary units and at the same time the contract asset in amount of 420,000 monetary units will be recognized.

A contract asset is not a financial instrument, so IFRS 9 is not used here, with only one exception - in in case of impairment (ISSB, 2023). An impairment of a contract asset shall be measured, presented and disclosed on the same basis as a financial asset that is within the scope of IFRS 9" (ISSB, 2023).

So, the entity must measure the contract asset for any impairment, determine the expected credit loss and recognize the loss reserve - exactly like any trade receivables.

The Standard uses the terms "Contract Asset" and "Contract Liability", but does not exclude the use of alternative names in the entity's financial statements. When an entity uses a different name instead of "Contract Asset" it must provide sufficient information for the financial statement user to distinguish between demands and contract assets.

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IV. Contract Liability

IFRS 15 introduces the concept of Performance Obligations. Performance Obligations are each promise to be fulfilled to the consumer, a different good or service (or package of goods and services), which are mainly delivered to consumers according to one and the same scheme (Sabauri, L., Vardiashvili, M., Maisuradze, M., 2022).

Traditionally, liabilities (referring to trade accounts payable) were used to refer to debts arising from trade relations.

According to the conceptual foundations of financial reporting, "liability" is an ongoing duty to transfer economic resources to an enterprise that arises as a result of events that have occurred in the past (ISSB, 2023).

For a liability to exist, the following three criteria must be met:

1. The entity has a duty;
2. Duty is a transfer of an economic resource (see points 4.36-4.41); and
3. This duty is a current duty that exists as a result of past events.

"Contract Liability ty is an entity's obligation to transfer goods or services to a customer for which the entity has received consideration (or an amount of consideration is due) from the customer) (ISSB, 2023).

For example, the company signed an equipment purchase contract on 28 December 2022. In accordance with the terms of the contract, the equipment must I be delivered from 10 February to 21 February 2023. The cost of equipment in the amount of 7 million monetary units must be paid within five working days after delivery (signing of the acceptance certificate). In such a situation, the company that entered into the contract for the purchase of equipment does not recognize the assets or liabilities associated with this contract in its financial statements as of 31 December 2022, since it was not responsible for the fulfillment of its obligations during the reporting period. The obligation to pay 7 million monetary units will be recognized once the equipment is delivered. However, it is important for the user of the financial statements to know the existence of such a contract on the purchase of fixed assets. This will allow him to assess future payments on investment activities, as well as learn about the company's intentions to acquire new fixed assets. Therefore, IAS 16 "Property, Plant and Equipment" fixed assets require disclosure of information about such contracts in financial statements (ISSB, 2023).

In some cases, payments are set by contract in stages. In many cases, the gradual payments received from the customer do not reflect the volume of work performed. Therefore, payments are not automatically recognized as revenue (Sabauri, L., Vardiashvili, M., Maisuradze, M., 2022).

According to Point 106 of IFRS 15, after receiving advance payment from the customer, the entity must recognize the contract liability in relation to its obligations related to the transfer of goods or services, or readiness for the transfer of goods or services in the future, in the amount of advance payment received. The entity shall terminate the recognition of such a contract liability (and recognize the revenues) when it transfers such goods or services and, therefore, fulfills the performance obligation

For example, entity "A" concludes contract with the customer for the manufacture and supply of 1,000 units of product for a total amount of 1 million monetary units. The contract specifies that the customer must pay 40% of the contract value in advance, within 30 days after signing the contract. After 30 days, an invoice is issued to the customer by Entity "A" in the amount of 40% of the value of the contract, as the payment deadline for reimbursement has come. On the basis of this invoice, the company reflects 400,000 monetary units, on the one hand as trade receivables and on the other hand as contract liability (Максим Лесовой, 2013).

Trade accounts receivable will be repaid by depositing the amount, and from the delivery of goods worth the remaining 600,000 monetary units, the unit will recognize income in the total amount, on which the following accounting records are composed:

Debit	Trade accounts receivable	600,000
Debit	Contract liability	400,000
Credit	Revenue	1000,000

In some entities, the customer pays a non-refundable advance payment to the unit, which entitles the customer to receive the goods or services in the future (and obliges the enterprise to be ready to deliver the goods or services), although this right may be left unused by the buyer. Such unused (unrealized) rights are often called "unclaimed rights or unclaimed amounts" (IFRS 15, B 45).

An entity shall recognize a liability (and not revenue) for any consideration received that is attributable to a customer's unexercised rights for which the entity is required to remit to another party (IFRS 15, B 47)

For example, shopping establishments often use gift cards that are not always fully cashed (or redeemed), and/or the tickets sold in advance by airlines are left unused by passengers. When a unit receives compensation attributable to an unrealized right of the customer, the unit must recognize the contract liability in the amount of advance payment received from the customer. Income is usually recognized when the unit fulfills its obligation.

Thus, the contract liability is recognized and measured by the amount of the advance payment received or receivable.

V. Conclusion

Thus, IFRS 15 introduces the terms "Contract Assets" and "Contract Liabilities", although an entity may use different terms in its financial statements (ACCA, 2022). The contract liability is recognized when the customer pays the remuneration in advance or when, in accordance with the terms of the contract, the due date for payment of the remuneration has come. Recognition of a contract asset occurs when an entity has fulfilled an obligation, however, the entity cannot recognize receivables until other obligations envisaged under the contract are satisfied with the future activities of the entity.

While a contract asset is a right to reimbursement that depends on the subsequent fulfillment of the rest of the terms stipulated in the contract, receivables are - an unconditional right to reimbursement.

Impairment of both contract assets and accounts receivable shall be measured, reflected and disclosed on the same basis applicable to the impairment of financial assets within the scope of IFRS 9.

For the presentation purposes, contract assets and contract liabilities must be calculated at the contract level and presented separately from each other, jointly. Accounts receivable must be presented separately from contract assets and contract liabilities

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The Control Environment; a Panacea for Effective Internal Control System in Nigeria's Public Service Entities

By Agoh Gideon Ikyaagba (PhD Student)
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Abstract- The study has examined the control environment one of the five components of the COSO internal control integrated framework; which is widely accepted as a model for evaluation of effectiveness of internal control by organizations. Among the five components, the control environment, the focus of this study is widely accepted as the foundation of an organizations entire internal control system. It is generally observed that the internal control system in the Nigerian public entities is very weak, the result is control failures which have given rise to fraud, embezzlement and other corrupt practices which run into billions of naira. The study sought to achieve the following objectives: firstly, identification of factors responsible for weak internal control in public service entities and secondly assessment of the role of the control environment as a panacea to the very weak internal control system in the public service entities in Nigeria. The study is conducted based on desktop and library; both published and unpublished materials were consulted. The study revealed that the managerial style, absence of integrity and ethical values, lack of commitment to competence, organization structure and accountability greatly impact the internal control system in public service entities. The study recommends the adoption of the principles embedded in the control environment for application in the public service entities.

Keywords: *control environment, internal control, Panacea, public service entities.*

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Keywords: control environment, internal control, Panacea, public service entities.

I. Introduction

Organizations generally tend to realize their objectives when there is good control environment. A good control environment enables the organization to conduct its activities in line with best practices, comply with laws, regulations, processes and procedures. The control environment is the foundation upon which an entire and effective system of internal control of an organization is built. Most of the front-page news stories which highlight cases of fraud, embezzlement and other corrupt practices such as the recent well publicised case of N109billion fraud involving the Accountant General of the Federation are mostly attributable to the weak control environment pervading the public service entities.

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II. Internal Control

As people come into an organization to help it achieve its goals, the need arises to set ground rules to ensure there is orderliness and control. These ground rules are what is collectively known as internal control. Internal control therefore is concerned with rules and regulations, processes and procedures, policies, checks and balances, systems and structures put in place to guide the internal operations of the organization members in the pursuit of the organization's objective. It aims at achieving the following objectives: promote orderly and efficient conduct of the business of the organization and thus ensure that all transactions are recorded; safeguard the assets and resources of the organization against loss, waste, abuse and mismanagement; ensure that people adhere to laws, regulations, processes and procedures, contracts, policies and management directives; ensure detection and prevention of errors, irregularities and fraud; ensure accuracy, reliability and completeness of records i.e. there is adequacy of documentation; and ensure timely reporting. Internal control therefore defines the way things should be done in an organization.

It is the responsibility of management to institute the controls as a whole and supervise them to ensure they function as prescribed and that there is compliance throughout the entire organization (Akinbo and Ojo, 2022).

III. The Concept of Control Environment

Control environment is one of the components of the internal control integrated framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO); an initiative of five American professional associations. The other components are: Risk Assessment, Control Activities, Information and Communication, and Monitoring Activities. The focus of the paper is on the individual elements of the control environment namely: Management philosophy and operating style, Integrity and Ethical values, Commitment to Competence of employees, Organization Structure, and Accountability.

These will be used to evaluate the internal control system in the Nigeria's public service entities.

Control environment is concerned with the top people in the hierarchy of an organization, those who decide the direction of the organization, their attributes which include: Management style and philosophy, integrity, ethical values, competence, and a commitment to upholding what is right and doing it the right way all the time (Ramos 2004; Nurse, 2018; IIA, 2011; AuditNet, 2022). It is this general attitude and actions of the top men which set the tone for staff members as they carry out their activities in the work place day to day. It is the base or foundation on which all other components of the internal control system are built.

> The Institute of Internal Auditors defines control environment as "*the foundation on which an effective system of internal control is built and operated in an organization that strives to achieve its strategic objectives, provide reliable financial reporting to internal and external stakeholders, operate its business efficiently and effectively, comply with all applicable laws and regulations, and safeguard its assets." (IIA, 2011).*

A strong control environment minimises the regularity and undesirable consequences of control failures; the absence of a good control environment will put the integrity of the entire internal control system to question no matter how well it is designed or operated (Zhang 2016).

According to Gallagher, (2022) failure in the control environment is the cause of fraud, embezzlement, and other corrupt practices which are prevalent in most public service entities. The creation of specialised bodies such as the Economic and Financial Crimes and Commission (EFCC), Independent Corrupt Practices Commission (ICPC), Code of Conduct Bureau (CCB) and even the regular audit has not posed a deterrence (Sanda, Mikailu, etal. 2010). Most of the reported cases being handled by these bodies involve the heads of the relevant government agencies and their management which the control environment calls the tone at the top.

a) Management Philosophy/Operating Style

Organizations in whatever form whether business, education, government religious etc. are formed for the pursuit of common objectives; which will be hard to attain if it were to be undertaken solo. Management philosophy/style is concerned with the way and manner the managers lead their teams and how they make decisions. Circumstances of organizations never happen by chance; it is consciously created by the leadership or management. As Robbins (1993) put it, whether the conditions of an organization will change or not largely depends on the management philosophy and operating style.

Managers hold different viewpoints or beliefs about workers: they generally tend to favour one of two viewpoints: that all workers either like or dislike work. This affects their attitude towards the workers in their daily interactions. Managers who believe that employees dislike work, are lazy, have little ambition, and wish to avoid responsibility and thus must be forced to put a good effort in their duties tend to closely supervise and control workers. On the other hand, managers who assume that employees generally like work and are willing to accept responsibility tend to give workers opportunity to participate in decision making as opposed to close supervision and tight control. Whatever belief a manager holds about workers has profound effect on the control environment and thus the internal control system of that organization.

Management operating style can be classified into three general categories (Mullins, 1996; Everard and Shilt, 1979): Theautocratic or dictatorial style is where the manager is the maximum leader; the authority and power to make decisions, institute policy and procedure, establish basis for rewards and punishment reside with the manager. Generally, the approach is said to be effective in the short term, during crisis or times of emergency. The tendency to undermine internal controls is more prevalent and pervasive under the autocratic managerial style. Achebe, (1984) submits that appointments into positions of leadership in public service entities is seen as a way of rewarding the appointees; and as such many of those appointed view it as an opportunity to exercise power, grant favours and acquire wealth. The autocratic leadership style therefore has wide support among those appointed to positions in the Nigerian public service entities, with its profound negative effect on the internal control system.

The public service entity solo leaders have no patience for rules and laid down procedures, they issue directives and expect compliance. Any attempt to draw attention to due process in our parlance is perceived as disobedience to constituted authority; which may earn one disciplinary action. In some instances, directors who insist on following laid down rules are harassed, intimidated, side-lined or frustrated out of service or transferred out of the agency back to the pool for those who are from the common services (i.e. Office of the Head of service and/or the Office of Accountant General of the Federation). It is not unusual to find head of agencies abandon the Director or Head of department to work with subordinates who are willing to cooperate with them in their abuse of processes. Because of this dictatorial tendency which pervade these agencies, most cases of control failure which run into billions of naira involve the heads of the relevant government agencies and their management. Internal controls are thus breached recklessly without consequence. They generally demonstrate personal inclination away from the norm and equally use deviant behaviour to subvert the internal control system.

The democratic leader is one who perceives himself as been more part of a team. Team members are more involved in decision making, discuss solutions, procedures and processes with employees rather than merely announce decisions; there is greater cohesion and interaction in the team. The leader consciously curtails his/her role, is more consultative, shows respect and trust in his team members and is more willing to delegate. Under this kind of style, the organization is more inclined to keep to rules and regulations, processes and procedures, uphold structures and standards of operation. The tendency for breach of internal control with its attendant consequences of fraud, embezzlement and corruption is not as profound and thus minimal.

Still a third style is laissez-faire style which can be called leaderless or non-style of leadership. The manager avoids trouble situations, the team is left with decisions which are within the sphere of the manager; there is total abdication of responsibility. In the circumstances, the organization is in confusion and disorder, crisis and chaos as there is no leader. There is total breakdown of internal control; in short controls are not in existence.

Each of these styles sets the tone and communicates it throughout the whole gamut of the organization. Internal controls will function well in practice if management believes they are important by their style of leadership; and thus, communicates this position to employees at all levels in the organization. Where management treats controls with disdain, conceives them as unimportant or worse still as an obstacle as epitomized by the autocratic style of leadership this attitude will trickle throughout the organization. Employees will naturally see internal controls as a red tape which they must cut through to be able to accomplish the task on hand (AuditNet, 2022).

Spend love, (2007) submits that decisions and actions for delivering sustainable quality public service are guided by leadership; generally, things get done through management. Armstrong (2003) supports this conceptual postulation when he argues that organizations can attain optimum performance at all levels only through the existence of efficient and effective management or leadership style. Effectiveness of controls is greatly dependent on the style of leadership adopted by the manager. At the heart of the success of any human endeavour is the quality of leadership driving it. It is leadership that upholds the control environment and sustains it, it does not occur by accident. Effective controls will not emerge accidentally; leadership will create the environment in which controls will thrive (Robbins, 1993; Akindele and Afolabi, 2013; Sudha, Shahnawaz, and Farhat, 2016). One cannot but agree with the submission by Brown (2001) that unfortunately, the atmosphere that will create and foster the desired standards of behaviour in the public service entities particularly in our clime is still very much lacking.

b) Integrity and Ethical Value

Ethical values are a set of moral principles, values, norms, rules of conduct that guide the behaviour of individuals, organizations, professions or a society at large. It is concerned with judging the rightness or wrongness of intentions, actions, decisions of an individual, group or a profession and how this affects others or society at large. Muhammad and Hamid, (2014). Munroe, (2014) sees it as ideas, principles, and qualities on which one places a very high premium and which are very dear to such a one. It has to do with something or someone you hold in high esteem; they govern the behaviour, conduct or policy of an individual or a group as the case may be. Examples include: rules and regulations, religious doctrine, code of business ethics for industry group or professional code of conduct. Munroe, (2014) further submits that where individuals imbibe strong positive values, there will be no need for introduction of multiplicity of laws to moderate their conduct. Such individuals will naturally do what they ought to do without someone else having to monitor them. Rules are not an end in themselves; after all they are designed to make us aware of the standard of what is right and proper so as to modify our behaviour; the rules on their own lack power to coerce people into obedience if they are not internalized.

Integrity is concerned with the application of strong ethical principles in our daily lives and activities. It encompasses such attributes as honesty, truthfulness, fair play, probity, trustworthiness etc. It is acting in ways that are consistent with one's personal values and commonly held values of an organisation and society at large (Naran, 1992). We should not espouse the ideal and then turn round to act in a contradictory manner; this will amount to a preacher who urges his congregation to a life of abstinence from the pulpit while he lives a life of gluttony in private. Munroe (2014) says integrity is "who we are when no one is watching."

It is generally referred to as a person's honour, character, standing for what one believes and the values he/she holds dear at all times in his action. It is being incorruptible, eschewing fraudulent behaviour, adhering to moral values, conformity with rules, standards and behaviours that are generally acceptable to an organization and in some cases the society as a whole (Bauman, 2013; Ssonko, 2010; Olanrewaju, Yemisi, Aliu, Daudu, 2020). To sustain integrity in an organization therefore requires that the leadership exalt these values at all times in all their dealings.

The clearest message to the employees about the importance of internal controls is the conduct of the management which either will encourage or discourage employees from being fraudulent or corrupt (Palanski

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and Yammarino, 2007; IIA, 2011).Acting with integrity has overwhelming influence on the control environment; subordinates usually tend to emulate the leader's integrity which almost always has a trickle-down effect. The decisions and actions of the leader whether inside or outside the organisations are under constant watch and have serious consequences on success or failure of the organization as a whole (Kathryn Christie, Kehoe Fellow).

The words of the Manager must reflect the reality in his or her life, only then can it impact the led. A call for commitment, integrity, ethical values, dedication, or sacrifice will never be honoured unless these qualities or values represent both the principles and practice of the personal life of the leaders (Briner and Pritchard, 2008; Munroe, 2014).

Subordinates will normally heed the call from managers whose words and actions are in congruence, and exhibit the behaviours and values they espouse. This ultimately affects the internal control environment and organization effectiveness (Downe, Cowell and Morgan, 2016). When this happens, those who are unwilling to conform may become uncomfortable, and have no option but to either adjust their conduct or exit the organization (Briner and Pritchard, 2008; Munroe, 2014). Many senior management/executives of government agencies have been in the media for scandal and illegal acts. One thing that has been consistent in their downward slide is their lack of integrity and the failure to align their behaviour in accord with moral set of values. Integrity is a key leadership quality; Employees tend to put in their best and controls also are most effective where leaders demonstrate integrity and ethical conduct, are consistent in word and deed, exude confidence and trustworthiness (Kalshoven et al., 2011). To build an ethical organization, the approach is top down. Employees tend to adopt the characteristics, behaviour, choices and values they see in their leaders. Ethical leaders espouse values they want their staff to exemplify i.e. leadership by example. Their decisions and behaviours both within and without the organization are more predictable (Kuligowski, 2022).

No matter the effort the management makes in enthroning ethical code, it will make no difference if the men at the top conduct themselves in unethical manner. They will tacitly be encouraging their subordinates to act the same way. In the same vein leaders who consistently uphold high ethical standards will become good examples for others in their organizations; through what they do which is more important than what they say, the leaders pass information as to what is acceptable and what is not.

For instance, where leaders use the organization's assets/resources for private benefit, inflate bills for settlement, demonstrate favouritism towards friends or relations, or other unorthodox behaviours and suffer no consequence the implication is that such conduct is allowable for all employees and that organizational rules are not applicable to those in power (Achebe, (1984). This has profound negative effect on the internal control system which is what is prevalent in our public service entities. Good leadership qualities should include morals and values, such as honesty, trustworthiness and integrity (Alam, Hoque, and Oloruntegbe, 2010)

How people are rewarded or punished also sends a strong message through the organization. When those who do questionable things or who operate on the basis of the end justifies the means are rewarded, then the message is that those approaches are alright. Appropriate punishment should be visited on wrong doing and this should be done openly whenever and wherever it is detected. This will be another message that wrong doing has consequences and that unethical behaviour will not be tolerated in the organization (Robbins, 1993; Brown et al. 2005).

LeBeouf, (1985) supports this proposition that organizations get what they reward; individuals are wont to do those things which they believe will be most beneficial to them. If we want an organization with a strong control environment built on ethics and integrity, then we reward those whose actions reflect these values; we can't reward the wrong values, ignore the right ones and expect a different result. We cannot hope for B, reward C and expect to get B as the result. Human beings generally irrespective of their status whether as managers, teachers, politicians etc. conduct themselves in line with the reward system. If the reward system tolerates impunity or unethical behaviour, then that the way they will act.

President Nyerere of Tanzania demonstrated integrity and ethical leadership in 1960s as a model for the citizens. He is on record to have requested for a moratorium on the mortgage for his private house from his bankers after he settled the school fees for his children. Tanzanians had no need for preaching on patriotism or a commission on ethical re orientation made up of the clergy and traditional rulers, the leader had set the pace (Chinua Achebe, 1984). Herein lies the challenge for our clime where the display of lack of integrity and unethical conduct is seen more as a virtue than a vice (Olatunji, 2015). There is the example of a Minister of Aviation who purchased two bullet proof cars at an inflated sum of N255 million in breach of all procurement processes. Although pressure from NGOs and the press forced her to resign in 2014, she later emerged as a senator of the federal Republic in the 2015 election (Ekene and Ugwunwanyi, 2016). Instances such as this abound where heads of public institutions undermine controls and get away with it, without even a whimper. The system rather rewards this behaviour with promotion which serves as encouragement to others to indulge in same.

Basically, subordinates try to emulate the behaviours of their leaders their mannerisms and many times out do the leader in every way, positive or negative. As little boys in the elementary school, one of our teachers who was a great footballer walked with a limp. All of us who played football then started emulating the teacher believing that is how great footballers walk. Therefore, if a leader lacks ethical conduct and integrity, the effect is apt to spread automatically down to his followers. A good number may see his action as the norm; those with a discerning mind may turn it over for a while but may ultimately conclude within themselves that the action of the leader is right. If controls are going to work, it must be from top down. However, Brown (2001) submits that unfortunately, the atmosphere that will create and foster the desired standards of behaviour in the public service entities particularly in our clime is still very much lacking.

c) *Commitment to Competence*

There are several theories that relate to competence; but the general conclusion is that competence refers to those observable and measurable behaviours and skills the possession of which make an individual to be effective and successful in his chosen career or in a work environment. It is being able to do something well, perform a task or job effectively and efficiently; it affects performance at work more than any other factor else. Tarekegne, (2015)submit that inability to put up satisfactory performance may draw form such factors as knowledge and skills gap, ignorance, incompetence, poor internal control or structure. These are like the tools which an individual need to possess in order to be able to resolve problems and also address different situation sat work.

According to (IIA, (2011) an organization that is committed to attracting and retaining competent employees must demonstrate the following attributes:

1. There must be clearly established rational basis or standard for attracting and retaining those that are most qualified and thus satisfy the organizations competency framework. The criteria must take into account such factors as requisite educational qualifications, previous work experience, past accomplishment, proven record of integrity and ethical conduct.
2. Performance review and appraisal should be conducted periodically to enable the organization advance or reward those that put up satisfactory performance to higher levels of responsibility; compensate competent and trustworthy people.
3. Organize regular trainings whose major objective should be to give personnel skills that enable them carry out their roles and responsibilities to meet up with expected performance.

Organizations are exposed to a higher level of risk where positions are filled by people without the required level of competence; those who occupy their positions by virtue of their relationship to those in charge of governance. The negative consequences of recruiting incompetent staff include: lost productivity, wasted time, increased operating cost, pressure on other employees which may lead to lower morale, more effort will be put in supervision, breach of procedures and controls. The ultimate is control failure which may lead to fraud as others begin to exploit the ignorance and incompetence of the wrong hire.

An example is cited of the appointment of the head of a particular public service entity. The appointee claimed to be a lawyer of many years' experience. The directors of the entity later discovered that his claims were suspected to be forged; they thus forwarded a petition to the supervising ministry. Instead of taking the appropriate action as prescribed by Public Service Rules (PSR), the minister was said to have threatened at a public function to sack all the Directors for daring to bring the matter to the fore. The appointee still completed his tenure of four years. However, his limited education clearly manifested in his operations in the entity; he had no concern for structure, due process or controls. There was total breakdown of internal control. Even though he eventually left, the impact of his mis rule is still been felt in the entity. Information has it that he got the appointment through the Minister overseen that agency. This is a typical experience of the overwhelming number of public service entities

Public service entities tend to eulogise mediocrity and compromise over merit and competence. Those in position of governance have notoriety for hiring relatives which negates established standards. Matters are made worse when such hires do not possess the needed competence, an action that can compromise the effectiveness of internal control. Competent, honest and efficient people are able to perform well even in the absence of elaborate controls. Internal control is disrupted where operations are in the hands of incompetent personnel.

Effective recruitment policy should attract quality personnel to an organization. Effective internal controls and continued success of an organization depends on the quality of its personnel (Cole, 2002). The recruitment policy of the federal government is very clear; available positions must be advertised so that people from all regions and states can vie for them and the best will be selected from the pool of applicants. The system has however adopted what is known as "waiver". This simply means that public entities are permitted to recruit without placing advertisement. The Federal Character Commission the body responsible for ensuring there is equitable distribution of available positions admitted that they grant waivers to agencies when vacancies are few and not deserving of a newspaper advertisement (Daily Trust Newspapers 5th February, 2021). This nebulous position has opened the

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door for recruitment of thousands of family members, in-laws, relatives, friends and cronies or other considerations such as tribe, political affiliation, sexual prejudice, religion or from corruption. Such people may not necessarily be the best for the positions.

Whenever merit is set aside for whatever consideration, it is the organization that ultimately pays the price. Competent staff do not invite supervision from external force, they are able to perform with minimal supervision which is a favourable environment for controls to thrive (Chinua Achebe, 1983).

Organizations that have achieved sustainable success are those that will not hire someone for an important position unless they ensure he/she is the best they can find. Public service entities have demonstrated consistent inclination to go for mediocrity and compromise instead of merit and competence. This explains why control failures are very pervasive and will continue so unless merit takes a central place in the scheme of things. (Chinua Achebe, 1984).

IV. Organisational Structure

Organizational structure designates roles and responsibilities, clearly defines the duties of each and every staff on the job. It establishes authority and responsibility, appropriate reporting standards or lines for every job holder. Koontz (1980) define organization structure as a formal and conscious arrangement of roles or positions geared towards the attainment of set objective/s. Organization structure avoids overlapping and ambiguity in setting job boundaries which may lead to conflict and crisis (Afolabi and Onwudinjo, 2008).

According to Robbins, (1993) structure assigns authority and responsibility; provides clarity and minimizes ambiguity as people know whose directives they are expected to follow. They know the scope of their jobs, who they report to and who reports to them. Organization structure supports one of the cardinal components of a good internal control system which is approval and authorization. Each transaction or activity should require the specific approval/authorization of a specified responsible officer on the hierarchy of the organization structure; this is to enthrone order and control.

Organisation structure is a carefully planned coordination of the activities of personnel to enable it attain its objectives. This is achieved by way of division of labour, functions or roles, and a hierarchy of authority and responsibility; how people, jobs, roles, positions, authority and responsibility are organized, coordinated and clarified (Minztberg, 2009). This is in line with another cardinal principle of internal control which is segregation of duties; no one individual in the organization should carry out a transaction solely from the beginning to the end. The essence of segregation is to minimize abuses such that critical phases of a transaction cycle are not under the control of a single individual; segregation also helps to detect and deter irregularities (UNDP, 1996).

According to Greenberg (2011), organization structure focuses on job positions, their relationship to each other, reporting standards and accountability for every job responsibility. Arranging individuals into positions also help to institute the principle of internal check in the organization; which is arranging work in such a manner that the work of one individual or department becomes an automatic and independent check on the work performed by another. It is the position of Brumbach (1988) that in the absence of controls, confusion and inefficiency are most likely to set in; the ultimate is that goals will not be achieved.

Structure helps to keep watch and check on the organization and also guide its activities towards achieving its objectives. A good structure makes an organization's internal control more effective and efficient. The real challenge of public service entities is those with the power to implement the tenets of the structure and ensure compliance are the same people who undermine it; the unwillingness of the top people in the public service entities to rise to the challenge of personal example which is the hallmark of integrity and ethical value (Achebe, 1983).

V. Accountability

One component of a good control environment is accountability. Internal controls are more effective if employees are made to know very clearly that the organization will hold them to account where its rules, regulations, policies, processes, procedures or the known standards are not complied with; and that appropriate disciplinary measures will be meted out against violators in order to ensure that effective control is maintained.

It is the position of Hedger and Blick (2008), that to enthrone accountability three elements must be present: wrongs done must be clearly identified, offenders must be adequately punished or disciplined as the case may be and finally steps must be taken to correct the inappropriate action. In our clime there appears to be no consequences for wrong doing; and even where attempts are made at sanction, they are so feeble that the culprits are able to escape. Then there is the challenge of protracted remedial action; it is not unusual for cases to last for up to ten or more years in the courts. In the process the actors would have retired and those called to respond may be total aliens to the events that transpired or would even have died. Agbonika and Musa (2014) refer to this as "the inexcusable delay or non-commitment to the administration of justice by the Nigeria judicial system". This protracted remedial action has continued and still continues to be a hindrance to effective internal control in the public service entities.

Accountability is concerned with the obligation to ensure that work has been done in line with known rules, regulations, processes, procedures and standards; those charged with responsibilities give fair, accurate and transparent feedback to relevant stakeholders on the performance attained in line with due process (Adegite, 2010). Internal financial accountability encompasses financial reporting framework, strong internal control, good budgeting practices and both internal and external auditing; these together create an enduring internal control environment. (Ng'eni, 2016).The challenge in our clime is not the absence of these structures, they are in abundance. Reports on any matter are always available, internal controls including both internal audit and public external audit are in existence, there is a whole ministry of budget and planning; therefore, what one would consider as best practices superficially are available. The greatest challenge is the commitment to ensure that these controls actually function in practice. Agencies indulge in extra budgetary expenditures without consequence, audit queries are ignored by MDAs; the Chairman of the public accounts committee of the House of Representatives was on national television on the 31st October, 2023 threatening to sanction head of MDAs who refused to appear before the committee to answer queries emanating from the Auditor General; even such threats would appear to have become ritual without consequence.

One other very important attribute of good internal control is adequacy of documentation which is evidence that work has been done. UNDP, (1996) submits that accountability can be discharged through oral or verbal reports of activities undertaken; this is a weak and the bare minimum form of discharge of accountability because of non-permanency and prone to forgetfulness. Accountability is much better and improved when transactions are documented in writing which is stronger than oral or verbal reports; it is more enduring and is not amenable to forgetfulness. Accountability is at its best when transactions are not just in writing but are backed up with supporting documents as evidence which can be traced and verified. Attestation of the accounts and supporting documents by an independent detached professionally qualified and recognized expert represent the highest quality assurance in the accountability chain.

Many times, this chain of accountability suffers a serious setback. Agencies sometimes deliberately keep as few records as possible. In circumstances where adequate documentation exists, the independent expert the auditor is made to have access to as few records as possible. In extreme cases finance and accounts department or sometimes a whole office of an MDA is burnt down in order to conceal the consequences of control failure. For example, the office of Nigeria's Accountant General was gutted by fire in the wake of the investigation of expenditure on Covid 19 (Punch Newspapers, 6th August, 2020). The Accounts department of the Federal Capital Development Administration (FCDA) was burnt down after alleged embezzlement of over N21 million naira by the staff (Washington Post, 27th February, 1983).

Briston, (1981) emphasizes on sub-division of duties in the accountability chain so that no one handles transaction completely from the beginning to the end. Where functions are segregated, individuals may not be able to conceal financial errors or any improper action all alone. The busiest departments in a typical MDA including those that are moribund are the office of the CEO, Finance and Accounts and procurement. Within these departments, functions are concentrated in the hands of very few mostly junior officers to the neglect of their most seniors. On occasions, committees such as the Parastatals Tenders Board (PTB) are populated by people who are outside the prescription of the Public Procurement Act. Heads of agencies sometimes request for specific officers (i.e. those in the common services) to be posted to their agencies. Both the punch Newspapers of 1st June, 2021 and the Premium Times of 8th November, 2021 carried the story of the embezzlement of over N2 billion naira by Abdulrasheed Maina who was appointed the head of the Presidential Task Force on Pension Reforms, At the time of his appointment, Mr. Maina was an Assistant Director under the supervision of at least two other cadres of Directors, when he was surprisingly appointed to head the pension task force. The manner of his appointment by the president on the recommendation of the Head of Service in the midst of numerous people who were his seniors is also very curious. That he was able to siphon such a huge amount of money out of the system undetected by the controls put in place in the agency speaks volumes of the decrepit state of our internal control system.

Internal financial accountability also suffers set back because of the conspiratorial relationship between political appointees and civil servants (Adeyemi and Obamney, 2010). It is the accounting officers and the career civil servants who possess the requisite knowledge and are the custodians of due process, rules and regulations, processes and procedures, and the known standards for conducting public sector business. Political appointees almost always rely on the accounting officers and the directors for guidance. It is the civil servants who guide the politicians and make them believe that controls can be undermined, known practice and due process recklessly violated; and how weaknesses in the system can be exploited. There is active conspiracy between political appointees and career civil servants at all levels to render the internal control moribund. The result is that internal accountability mechanisms in the agencies are defeated; most times cases of control failures are brought to the fore through petitions to anti-graft agencies or through the media by NGOs or CSOs. Thus, the weakness in the internal control system which has been with us since our independence but on a limited scale has now attained a very disruptive and damaging magnitude to our system.

VI. Conclusion and Recommendation

The paper has explored the control environment which is one of the components of the COSO internal control integrated framework. The control environment is the foundation of the internal control system of any organization that wants to achieve its goals. The general finding is that the internal control system in public service entities is very weak; this is due to their inability to adopt the principles of the control environment in benchmarking their internal control system namely: management philosophy style, integrity and ethical values, lack of commitment to competence, non-adherence to tenets of organizational structure and the lack of internal accountability.

It is recommended that public service entities adopt the control environment which is very appropriate for the system in bench marking their internal control systems. The adoption and application of the principles of the control environment as presented in this paper will greatly minimize the frequency and severity of control failures in the public service entities.

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8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.
Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

19. Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

20. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

21. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

22. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

23. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.

Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.

- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- o Single section and succinct.
- o An outline of the job done is always written in past tense.
- o Concentrate on shortening results—limit background information to a verdict or two.
- o Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- o Explain the value (significance) of the study.
- o Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- o Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- o Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

Criterion for Grading a Research Paper (Compilation) by Global Journals

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals.

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	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
Methods and Procedures	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
Result	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
Discussion	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
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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