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THE KEY CHALLENGES OF CORPORATE GOVERNANCE OF FIRMS: EMPIRICAL EVIDENCE FROM SUB-SAHARAN AFRICAN ANGLOPHONE (SSAA) COUNTRIES

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Abstract

This paper uses empirical evidence to identify views about the important components of good corporate governance practice for listed firms in Sub-Saharan African Anglophone countries. This study used survey questionnaire based on international corporate governance norms, data were collected from listed firms in Ghana, Nigeria and South Africa. The findings include: In Ghanaian and South African firms there are evidence that regulatory framework and enforcement of corporate governance promote sound corporate governance system. This study revealed that commitment of board of directors to disclosure and communication may provide effective corporate practices. Political environment and ownership structure of firms' hinder sound corporate governance practices. Accounting system operating in each country plays a vital role in promoting sound corporate governance system. However, societal, cultural and corruption seem to deter corporate governance system in Ghanaian and South African firms. We recommend that there should be prudent monitoring of corporate governance rules and enforcement.

Keywords: Institutional Characteristics, Directors, External Factors, Corporate Governance And OLS

1. BACKGROUND OF STUDY

The issue of corporate governance continues to receive a high level of attention as a result of a series of corporate scandals that occurred in different parts of the world in the early part of this decade such as Adelphia, Enron, World com and XL holiday. Consequently, this has shaken investors' faith in the capital market and the efficiency of corporate governance practices in promoting transparency and accountability. Since then, governments around the world have undertaken various measures to strengthen their regulatory framework in order to restore investors' confidence and enhance corporate transparency and accountability (Sarbanes-Oxley Act 2002, World bank 2002, OECD 1999).

In developed countries authors such as Cadbury (1992) UK, Morck and Nakamu (1999) Japan, and Georgen, et.al (2008) Germany, have carried out various studies on corporate governance. The studies mention above have emphasised the importance of corporate governance but it is still unclear how these findings relate to Sub-Saharan Africa Anglophone countries. The differentiations may be as a result of corporate attitude, and enforcement of corporate governance policy in Sub-Saharan Africa Anglophone countries. This study used a survey questionnaire with questions based on international corporate governance norms from Okpara (2010), Burton et al. (2009) and literature from corporate governance.

We used empirical evidence to identify views about the importance of each component of corporate governance practice of listed firms in the sub-region. The research question that this study addresses includes the identification of the components that are important for good corporate governance of listed firms in the sub-region. This is because despite the issue of code of corporate governance practices by regulatory bodies of each country in the region, there have been a scandal among the board of directors and collapse of firms such as Cadbury Plc in Nigeria.

Furthermore, in the banking industries in Ghana and Nigeria in recent times, the Bank of Ghana and Central Bank of Nigeria (CBN) sacked some board of directors of banks as a result of gross insider abuse, mismanagement of funds and this led to consolidation, merger and acquisition of these banks (SEC,2011). Thus, the purpose of this paper is to fill this gap as much as possible by firstly, identifying the impact of institutional characteristics (such as regulatory framework, enforcement, disclosure and transparency, shareholders rights and ownership concentration) of corporate governance on corporate governance system. Secondly, revealed the effect of responsibilities of boards of directors on corporate governance system. Thirdly, revealed the impact of external factors of corporate governance of firms.

The scope of this study covers listed firms in Ghana, Nigeria and South Africa. These countries are English speaking countries and their selection is based on a regional approach, which gives a wider scope. In addition, these countries have growing and strong economies with large markets. For instance, Ghana with the fastest growing economy in the sub-region after the discovery of crude oil, South Africa is one the strong economy in the Sub-region and Nigeria been the strongest economy, having a huge population, large markets, blessed with abundant natural resources such as crude oil and land fertile for agriculture.

The regulation, control and governance of corporations of these countries are largely contained within provision of company legislations which have their root from British colonial laws. Based on this, Ghanaian, Nigerian and South African legal systems and corporate governance mirror the United Kingdom pattern (Okike, 2007). Therefore, it is necessary for this study to review the development of corporate governance structures of listed firms for each of these countries in order to highlight different reforms, issues and factors hindering corporate governance of firms in Ghana, Nigeria and South Africa. The corporate governance rules and laws have influence the companies' law of each country. Thus, the three countries derived their companies' laws from British companies' law and the Code or guideline of corporate governance of each of the country is similar.

The findings from this study make a contribution to the literature that enforcement, disclosure and transparency are likely to promote sound corporate governance system in Ghanaian and South African firms because enforcement variable have a positive significant on Corporate governance system variable such as rules and laws. Another contribution of this study is that in Nigerian firms, regulatory framework has a significant negative effect on corporate governance system. This may hinder promotion of sound corporate governance because regulatory framework variable have a negative significant on corporate governance system variable. This finding seems to be due to a lack of proper implementation of regulatory framework of corporate governance by the institutional bodies such as Securities Exchange Commission (SEC), Central Bank of Nigeria (CBN) and National Insurance Commission (NAICOM). Moreover, lack of proper implementation may possibly be as a result of corruption among the officials of institutional bodies. Furthermore, there are laws in the books and laws in practice, however in Nigeria there are laws in the book for regulatory framework and enforcement policy of corporate governance but there are no laws in practice to execute those rules and regulation and enforcement of corporate governance practices. The institutional bodies and corporate governance system may look good on papers but when they are compromised with corruption, lack of implementation and incompetence the result is likely weak corporate governance practices among firms in Nigeria.

We find that across the selected countries in the Sub-region larger concentration of ownership and preferential treatment to large shareholders may have influence on corporate governance system (rules and laws of corporate governance practices). The implication is that ownership concentration is prevalent in Sub-Saharan African Anglophone firms. This finding revealed that ownership concentration variable have a positive significant relationship on corporate governance system (rules and laws of corporate governance practices). This result suggests that larger concentration of ownership and preferential treatment to large shareholders need to be properly managed in order to enhance sound corporate governance practices in the Sub-region.

This study provides the empirical evidence in all the selected countries that the commitment of board to transparency in board nomination and election process improve corporate governance system. However, board duality (separation of role between the chairman and CEO) may hinder corporate governance practices. This may be due to incompetence and inefficiency of both the chairman and CEO. This result implies that there may be separation of roles and responsibilities between the Chairman and Chief Executive officer. However, this is less likely to promote good corporate governance practice. This result is based on the opinion of the respondents from the questionnaire. In addition, corruption deters rules and laws that promote effective corporate governance particularly in South Africa; as a result of institutionalised corruption in the sub-region. This finding supports the evidence that in recent time, corruption is prevalent across sectors of the economy and in society at large. Consequently, the rules and laws can be easily altered or not properly implemented by the enforcement and supervisory agencies of corporate governance. Moreover, this study finds that ownership structure may likely enhance effective corporate governance in Ghanaian than Nigerian firms. It seems that there may be lack of due process in the acquisition of ownership of firms in Nigeria when compared with Ghanaian firms.

However, the accounting system plays a vital role in promoting corporate governance across countries in the region, and in each country such as Ghana, Nigeria and South Africa. This result suggests that it is through the quality of accounting system that shareholders, potential investors and other stakeholders of firms will be able to receive financial information about their firms.

The rest of this paper are section two which is the literature review, section three methodology, section four is illustrate as finding of the study, section five and six show the conclusion and recommendation of the study.

2. LITERATURE REVIEW

In this section we provide the prior studies on institutional characteristics of corporate governance, role and responsibilities of board of directors and external factors on corporate governance of firms.

2.1. Institutional Characteristics of Corporate Governance

The level of legal protection of investors in any country is an important factor in determining the development of the financial market of company in that country. The systematic differences in structure of law and enforcement among various countries in area of historical trend of their laws, level of corruption, and the quality of their enforcement will surely determine the difference in financial development. As a result, these are the findings of authors toward the study of legal protection and enforcement in corporate governance of different countries. La Port. et.al (1998, 2008) posited that countries which their legal systems have origin in common law are more substantial shareholder protection than civil-law system. Also the authors claimed that greater shareholder protection increase the level of stock market development. In addition, Armour et.al (2009) revealed the same finding that common law system exhibits a higher level of shareholder protection than civil-law system. La Porta et al. (1998) examined the legal rules covering protection of corporate shareholders and creditors.

OECD (2004) explained the important of legal regulatory, supervisory, and enforcement agencies so that corporate governance framework will be effective in a firm. The organisation revealed that corporate governance framework should enhance transparency, consistent with rule of law, and there should be division of responsibility for supervisory regulator and enforcement agency in each country in which the firm operate. Each of the country must make sure that there is no conflict between the codes. The principles also suggest that supervisory, regulatory and enforcement authorities must have the power, integrity, and resources needed to carry out their duties in a professional and objectives manner. However the rulings of these authorities should always be at appropriate time, transparent, and should be explain clearly. In addition, Rossouw (2005) posited that lack of an effective legal and regulatory framework hinder good corporate governance, this prevent firms from listing because they are under highly scrutiny and they need to increase their level of disclosure. However, the author further explained that a legal framework is compulsory so that it can offer sufficient incentives for firms to become more transparent.

Beside this, OECD (2004) explained that corporate governance framework should ensure that timely and accurate disclosure is made on all material matters pertaining to the company. This includes the financial situation, performance, ownership, merger and acquisition and governance of the company. Moreover, OECD (2004) specified the following as the basic shareholder rights. This include the right to secure method of ownership registration, convey or transfer share, obtained relevant and material information on the corporation on a timely and regular basis. The organisational also revealed that corporate governance should ensure equitable treatment of all shareholders. Shleifer and Vishny (1997) posited that ownership concentration is link with legal protection as one of the main element for determinant of corporate governance. Thus, ownership concentration can be viewed as a governance mechanism. Against this background, the important research question is that to what extent has institutional characteristics (such as regulatory framework, enforcement, disclosure and transparency, shareholders rights and ownership concentration) of corporate governance have impacted on corporate governance system such as rule and laws of firms in Sub-Saharan African countries such as Ghana, Nigeria and South Africa.

2.2. Role and Responsibilities' of Board of Directors

The composition of the board of directors is very important for the board to perform their functions without any control from anybody. The board should include individual with good personal character and ability to perform the board's duties, integrity, having sense of accountability, record of success, and leadership qualities. In addition, he or she must be expert in the field of finance with experience, and must always think strategically. The directors must show his committed to the organisation by prepared and present for meeting.

Weisbach and Hermalin (2003) asked this question that why there are boards of directors. The authors answer by argues that boards of directors exist as a result of regulation between the country corporate law and Stock Exchange Commission (SEC) requirement. The authors further argue that boards of directors are market solution to firms' design problems and it is an endogenous determines institution that improves the agency problem that is affecting large firms. Moreover, OECD (2004) principle of corporate governance explained the responsibilities of the boards which include the following; reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plan. The responsibilities also include setting performance objectives, monitoring implementation, corporate performance; and overseeing major capital expenditure acquisition and divestiture. The organisation also stated that the function of board of director should include; selecting, compensating, monitoring, replacing key executives and overseeing succession planning. This function of the board is aligning key executive officer and board remuneration with the longer term of the company interest of the company and its shareholders. In addition, the board should ensure a formal and transparent board nomination and election process, overseeing the process of disclosure and communications. The board should ensure the integrity of the corporation's accounting and financial reporting standard which include the independent audit system and compliance with law, regulation, and standards. The board play the role of monitoring the effectiveness of company's governance practices and they should able to commit themselves effectively to their responsibility.

The composition of the board of directors is very important for the board to perform their functions without any control from anybody. The board should include individual with good personal character and ability to perform the board's duties, integrity, having sense of accountability, record of success, and leadership qualities. In addition, he or she must be expert in the field of finance with experience, and must always think strategically. The directors must show his committed to the organisation by prepared and present for meeting.

Most of the empirical studies on effect of board composition on firm performance have produced different results. Heracleous (2001) argues that the accepted "Best Practices" on corporate governance has generally failed to find convincing link between these practices and organisation performance. Using empirical analysis, the result shows that the relationship between two best Practices CEO/chair duality and insider and outsider composition and organisation performance to be insignificant. Raheja (2005) models the interaction of firm insiders and outsiders on a corporate board and discussed the question of board's ideal size and composition. In the model the results shows, that the board duties was for monitoring and making CEO succession decision. However, there is clear indication of negative relationship between board size and firm performance. Jensen (1993) argues that when boards are small in size this can help to improve performance and when board members are more than seven or eight people they are less to function effectively and are easier to control by CEO. This due to the coordination and process problem overwhelm the advantages gained from having more number of people on board.

In addition, board corporate strategy involve the level of participation of board members in commitment to decision making that can affect the long term performance firms, the strategic decision which is decision that base on long term trust and the direction of the firm (Ogbechie et al., 2009). The authors relate the board characteristics such as board size, outsider and inside board of director and CEO duality in relation to board involving in strategic decision making. As a result the authors found that boards have to be more effective in strategy process. OECD (2004) explained that board should involve in reviewing and guiding corporate strategy such as major plan of action, risk policy, setting performance objective, and annual budget with business plan. Others include monitoring implementation, corporate performance, overseeing major capital expenditure and acquisition and divestitures.

Moreover, in the heart of corporate governance debate the issue of executive compensation have attracted much attention worldwide (Okike 2007). OECD (2004) explained that the board should have a sufficient numbers of non-executive directors capable of exercising independent judgement on key responsibility such as payment of executive compensation. Therefore, board members of firm have a responsibility for pay attention to issue of executive compensation. Consequently, Shah et.al (2009) revealed that the determinant of Chief Executive Officer (CEO) compensation is mainly on economic factor globally, this may likely due to various market demand, work place diversity, heterogeneity in firms' level and the growth opportunities of the firms. Thus the authors found that the size of firms, firm performance, market risk, power, tenure, CEO ownership and firm growth have being used to determine the executive compensation.

In order to fill the gap in the literature, the pertinent research question that this study seeks to address is the effect of role and responsibilities of firm's directors on corporate governance system of firms in the Sub- Saharan Africa Anglophone countries (SSAA). We formulate the hypothesis that there is a relationship between role and responsibilities of firm's board of directors and corporate governance system.

2.3. External factors on Corporate Governance

There are external factors affecting the development of corporate governance in sub-Saharan Anglophone countries such external factors such as legal and regulatory, economic, cultural and societal, political, corruption, ownership structure and accounting system. OECD (2004) explained the important of regulatory, supervisory and enforcement agencies for effective corporate governance framework, also the organisation stated that corporate governance framework should promote transparency, efficient market and consistent with rule of law. In addition, Rossouw, (2005; La portal, et.al 1998; Johnson, et.al 1999; Klapper, and Love 2004) these authors posited that effect of legal and regulatory framework on corporate governance of firms. Also, economic factor have effect on corporate governance such that OECD (2004) stated that corporate governance is part of the larger economic context in which firms operate such as macro-economic policies and the degree of competition in product market. Thus, Coffee (2005) argues that corporate scandals, state of the economy and underlying ownership structure of firms led to most recent global economic downturn. These factors are associated with accounting scandals fraud and financial regularities. The author further stated that effective corporate governance can enhance economic growth, and long term investment stability through attraction of local and foreign investors.

Furthermore, the type of political system and government in operation in a country play a vital role in shaping society and this can also influence the likelihood of sound corporate governance practices. ECA (2002) explained that institutions of government have capacity to manage resources efficiently, formulate, implement and enforce sound policies and regulations of corporate governance. Corporate governance best practices can only be really achieved in an environment free of internal socio-political, economic and cultural corruption and free of trans-organised financial crimes (Bakre 2011). Burton et.al (2009) revealed that corruption remain endemic in developing Africa nation and in some cases, this become institutionalised as a result of collective behaviours.

Moreover, effect of ownership structure on effective corporate governance is significant. There are a number of studies on ownership structure, performance and value of firms. However, Denis and Mconnell (2003) found that effect of ownership structure, firm value and performance are mixed and the results are inconclusive. La portal, et.al (1999) revealed that except in economies with very good shareholder protection, few of firms are widely held. The quality of accounting system have influence on corporate governance practice such that OECD 2004; Cadbury, 2002 revealed the importance of the accounting framework in promoting disclosure and transparency. It is stated that information should be prepared and disclosed in accordance with high quality standard of accounting and financial and non-financial disclosure. Consequently, accounting information play a major role in the effective corporate governance of a firm because it enables relevant parties to monitor the performance of managers and use that information to hold the managers accountable in their firms (Gray, et.al (1996). The final aspect of this paper, revealed research question that to what extent has external factors of corporate governance (such as economic, societal and culture, political environment, corruption and bribery, ownership structure and accounting system) of firms affect the corporate governance system such as rules and laws in Sub-Saharan African Anglophone countries.

3. METHODOLOGY OF THE STUDY

This section describes the data instrument and source of the instrument, and explains the pilot study. Also focuses on the data collected by a survey questionnaire from the stakeholders of corporate governance of listed firms in Ghana, Nigeria and South Africa.

3.1. The source of data instrument

The instruments used to collect the data for this study was a survey questionnaire derived firstly, from Organisation for Economic Co-operation and Development principles of corporate governance in the 2004 OECD which has been assessment instrument for Okpara (2010), also from Burton et.al (2009). Secondly, from various corporate governance literatures, and in order to make sure that the data instrument is not subjective. This study modified the data assessment instrument so that it is tailored toward codes of best practices of corporate governance in Nigeria and guidelines of corporate governance practice in Ghana. Also, the King I, II, III Report of corporate governance in South Africa was considered in the data instrument. As a result, the institutional frameworks for corporate governance for Ghana, Nigeria and South Africa are all formulated from OECD principles of corporate governance. The above countries received their independence from Britain and the companies' laws are derived from British common law. Consequently, the rules, laws and legal systems for each of these countries are considered in the data assessment instrument.

The reason for using questionnaire is that there is lack of information on corporate governance variables in developing region such as Africa. The finding of this study could reveal the reality of the situation in those countries selected (Ghana, Nigeria and South Africa). The limitation of using questionnaire method is that the finding from the respondents is an opinion about what is happening on the issues of corporate governance of firms in Sub-Saharan Africa Anglophone countries. Also the respondents may not be questioned or probed. In addition, there is a level of researcher imposition, this implies that when developing the data instrument (survey questionnaire), we may be making our own assumption as to what is important and not important. Thus the researcher may be missing something that is of important.

These statements or items above (items) are based on a liker scale of five-point (1=strongly disagree to 5= strongly agreed.). The reason for using this scale is to measure intensity of feeling about the area in question. The justification of choice five liker scales is based on Bryman (2007) who posited that five liker scales is important because it enables the respondents to express their level of agreement with the statement in the question effectively.

In addition, five point liker scale format provides five response alternatives which give more flexibility and also provides a measure of intensity, extremity and direction. To allow all the items or variables to be in one direction the negatively worded item are re-worded such that if is equal= 1 it is now 5, 2 now 4, 3 is still 3, 4 now 2 and 5 is 1. The items or statements in these sections are not in the same direction because there is need for the respondents to think very well before they tick the option in the survey questionnaire and this will not allow them thick those questions in one way. This happened under regulatory framework in section C, shareholders rights in section F and section G which consist items for the role and responsibility of firm's boards of directors in the survey questionnaire.

3.2. Pilot study

Generally in a quantitative research study such as survey questionnaire, prior to the time of using this survey questionnaire to collect the data there is a need to conduct a pilot study. In addition, Saunders et.al (2012) revealed that prior to using a questionnaire to collect data, it should be piloted tested. Firstly, the purpose of the pilot test is to refine the questionnaire so that respondents will have no problem in answering the questions. Secondly, to ensure that there is no problems in recording the data and to obtain some assessment of the questions' validity and reliability of the data that will be collected so that the research question will be answered. Through pilot study validity and reliability can be measured in order to make sure that the survey questionnaire actually represents the reality what the study is to measure. In making sure the scale of the study is reliable we checked the reliability of the scale by checking the internal consistency through Cronbach's alpha coefficient and the result indicated 0.80 Cronbach's alpha coefficient. Ideally, Pallant (2010) explained that Cronbach's alpha coefficient of a scale should be above 0.7 .

Thirdly, there is need for pilot study because it is a form of trial run for the survey questionnaire so that we can determine whether the questionnaire will be successful after collection from the respondents. Besides this, during the pilot study we are able to identify the time of completion of the survey questionnaire. This also includes the clarity of the instructions for the survey questionnaire (if there are any questions that are unclear or ambiguous). In addition, to identify the questions that are not easy to answer by respondents, the lay out and how attractive the questionnaire to the respondents.

At the end of the pilot study alteration were made to the questions including adjustment to layout. The survey questionnaire works best with standardised questions that one can be confident with and interpret in the same way by all the respondents. As a result, the survey questionnaire tends to be used for descriptive or explanatory research such as opinion on issues in organisation and organisational practices.

Against this background, a pilot study was carried out for the stakeholders of corporate governance who are legislators, regulators, academician, individual investors, institutional investors, accountants/auditors, executive directors and non-executive.

3.3. Data Sources

A survey questionnaire was administered through a stratified random sampling to respondents which comprise the following; legislators, regulators, academician, individual investors, institutional investors, accountants/auditors, executive directors, non-executive directors, company executives (CEO) company employees, judiciary/legal and other such as students.

In Ghana out of 200 survey questionnaire administered to the respondents, 150 were received which indicates 75 percent response rate. There are thirty-four listed firms on the Ghana Stock Exchange (GSE). As a result, the respondents from this study are from more than twenty listed firms which include banking, mining, food and beverages, breweries, conglomerates, insurance, chemical and paints, textiles, agriculture, and petroleum (marketing). When I was in Ghana apart from visiting some listed firms, regulatory agencies offices, l also visited secretariat of the Institute of Director (IoD) in Accra and they assisted me in filling the survey questionnaire.

In the case of Nigeria, 400 survey questionnaires was administered to the categories of respondents and 320 was received, representing 80 percent response rate. In Nigeria, there are 206 listed companies on Nigeria stock Exchange (NSE). The respondents from this study are up to 100 listed firms. I was able to attend 20 Annual General Meeting (AGM) of listed firms; including an AGM of shareholders in Lagos and Abuja. This gave me the opportunity to distribute the survey questionnaire.

In South Africa 100 survey questionnaire were administered to the respondents and 71 was received back, this representing 71 per cent response rate. The survey questionnaires were sent and received back by e-mail. Some were sending and received back through postage. In addition, the South Africa embassy in Nigeria assisted in sending and receiving some of the survey questionnaires. The respondents for South Africa covered investors, academician, legal/judiciary, accountants/auditors, board of directors and company employees for some of the financial and non-financial listed firms. Some of the regulatory and supervisory agencies were also covered.

The data instrument for this study (survey questionnaire) was administered to firms in South Africa. The firms were in the banking industry, the mining industry such as diamond and platinum industry and some other manufacturing companies. The researcher ensured that each of the survey questionnaires reached the top mining industries and financial sectors because; the South Africa economy is based on mining, finance house and financial sectors.

3.4. The Sample of the study

The study uses a stratified random sampling method to collect the data from twelve categories of respondents who were stakeholders of corporate governance in the SSAA region. The instruments used are from modified version of the Organisation for Economic Co-operation and Development (OECD, 2004) Okpara (2010), Burton et.al (2009) and corporate governance literatures. The data consist of 541 returned out of 700 survey questionnaire administered to the respondents, this give a response rate of 77.29 per cent. Out of the total of 541 respondents 150 respondents were from Ghana, 320 from Nigeria, and 71 respondents from South Africa.

3.5. The dependent variable

The variables are rules and law systems, agencies power, legal system and organised agencies structure. The total corporate governance system (**Total_cs)** is the addition of statements under this section is proxies as dependent variable.

Therefore the Total corporate system is proxy as dependence variables can be expressed as:

Total_Cs= Rules_Law + Agencie_Power+Legal_system+Agencies_Organise

Table 1. Definition of the variables for section B: Corporate governance system

Variable	***Statements***
Rules and Laws (Rules_cs8)	There are adequate laws and rules that promote the practice of good corporate governance of firms in my country.
Agencies power (Agencies_cs9)	The supervisory, regulatory and enforcement agencies have power, resources and authority to enforce compliance with laws and regulations and guideline on corporate governance
Legal system) (Legal_cs10)	A good legal system in my country of operation helps to improve the corporate governance of firm
Agencies-orgnise (Organise_Cs11)	A well organised legislature and sound regulatory and supervisory agencies in place promote good corporate governance
Total corporate governance system (Total_csQ8-11)	This addition of all variables for corporate governance system of firms under section B of the survey questionnaire.

3.6. The Independent variables

The independent variables are the addition of all the sub-variables in each section from C to G this includes the following below:

Trfw_(Q12-16) is denoted as the Total variable for regulatory framework which is the addition of statements (12 to 16 sub-variables) under the regulatory framework in section C of the survey questionnaire.

Tenfm_ (Q17-19) is proxy as Total enforcement variable which is the addition of statements (17 to 19 sub-variables) under enforcement of corporate governance in section D of the survey questionnaire.

Tdis_(Q20-23) indicated as the Total disclosure variable, this is the addition of all variables from statements (20 to 23 sub-variables) which is under section E of the survey questionnaire.

Tshrt_(Q24-27) is denoted as Total shareholders' right variable which is the addition of all the sub-variables from statements (24 to 27) under section F of the survey questionnaire.

Towc_(Q28-30) is represented as Total ownership concentration variables and is the addition of all sub-variables from statements (28 to 30) under section G of the survey questionnaire.

Other control variables which is the country dummies indicating if the respondents are from Ghana (**G**), Nigeria (**N**) and the reference category being South Africa. In addition, if the respondents are regulators. Finally, μ_i is the random error term which is independently and identically distributed.

3.7. The model for the analysis of institutional characteristics on corporate governance system

This equation (1) below examines the contribution which each aspect of corporate governance (Such as regulatory framework, enforcement, disclosure and transparency, shareholders rights and level of ownership concentration) makes to the corporate governance system. Thus for i-th respondent total corporate governance system of firm (Total_Q8-11) can be determined as follows:

$$\text{Total\_(Q8-11)} = \beta_0 + \beta_1(\text{Trfw\_Q12-16}) + \beta_2(\text{Tenfm\_Q17-19}) + \beta_3(\text{Tdis\_Q20-23}) + \beta_4(\text{Tshrt\_Q24-27}) + \beta_5(\text{Towc\_Q28-30}) + \beta_6(G) + \beta_7(N) + \mu_i \quad (1)$$

This equations (2-6) below examines the contribution of each sub-variable under (regulatory framework, enforcement, disclosure and transparency, shareholder rights and ownership concentration) makes to the rules and laws of corporate governance practice.

3.8. The Independent variables

The Independent variables comprise of eight statements under section H that measure the role and responsibility of board of directors such as the level of commitment to corporate strategy (Corp_strgyQ1), adequate attention to executive compensation (Bod_ExecQ2), and effective committed to their responsibility (Bod_EffQ3).

In addition, independent variables also represented as Level of ensuring of a formal and transparent board nomination and election process (Bod_TrpyQ4).

Others independent variables are level of concern about enforcement of corporate governance policies (Bod_MerQ5), supervision of process of disclosure and communication (Bod_DiscQ7) and separation of roles and responsibilities of Chairman and Chief Executive Officer (CEO) (Bod_dulityQ8).

3.9. The model for the analysis of role and responsibility of firm's board of directors and corporate governance system

The equation below examines the contribution of role and responsibilities of the board of directors make to the corporate governance system.

Thus for it respondent total corporate governance system of firm (Total_cs) can be determined as follows:

$$\text{Total\_cs} = \beta_0 + \beta_1(\text{corp\_strgy1}) + \beta_2(\text{Exec\_comp2}) + \beta_3(\text{Bod\_Eff3}) + \beta_4(\text{Bod\_Frept4}) + \beta_5(\text{Bod\_Trpy5}) + \beta_6(\text{Bod\_enfm6}) + B_7(\text{Bod\_Disc7}) + \beta_8(\text{Bod\_Duality8}) + \beta_9(G) + \beta_{10}(N) + \beta_{11}(GR) + \beta_{12}(NR) + \mu_i \quad (2)$$

Where the corporate governance system is the dependent variable and it is measured by the addition of items or statements under section B of the survey questionnaire.

Also are countries, regulatory agencies dummies indicating if the respondent is located in Ghana, Nigeria (the reference category being South Africa), in addition, if the respondent is regulator. Finally, μ_i is the random error term, which is independently and identically distributed.

3.10. The Independent variables

These include the following below:

Teco_(Q12-21) this is proxy as the variable for economic factor which influences corporate governance practice and it covers statements or items (sub-variables) 12-21 under Section C of the survey questionnaire.

Tscf_(Q22-25) denote the variable for societal and cultural factor effect on corporate governance practice and it covers statements or items (sub-variables) 22-25 under Section D of the survey questionnaire.

Tcorpt_(Q26-31) indicate the variable that influence corruption and bribery on corporate governance practice, this covers statements or items under (sub-variables) 26-31 of Section E of the survey questionnaire.

Tpol_(Q32-36) illustrate political environment factor variable that impacts on corporate governance practice, and covers statements or items under (sub-variables) 32-36 of Section F of the survey questionnaire.

Town_(Q37-41) is proxy as the variable for ownership structure effects upon corporate governance and covers statements or items under Section G (sub-variables) 37-41 of the survey questionnaire.

Tacct_(Q42-44) represents variable for the influence of accounting system on corporate governance, it covers statements or items under Section H (sub-variables) 42-44 of the survey questionnaire.

3.11. Model for the analysis of effect of external factors on the corporate governance system

The equation below examines the contribution that each external factor makes to the corporate governance system.

Thus for i-th respondent total corporate governance system of firm (**Total_Q8-11)** can be determined as follows:

$$Total\_(Q8\text{-}11) = \beta_0 + \beta_1(Tec\_Q12\text{-}21) + \beta_2(Tsc\_Q22\text{-}25) + \beta_3(Tcorpt\_Q26\text{-}31) + \beta_4(Tpol\_Q32\text{-}36) + \beta_5(Town\_Q37\text{-}41) + \beta_6(Tacct\_Q42\text{-}44) + \beta_7(G_R) + \beta_8(N_R) + \mu_i \quad (3)$$

The dependent variable is proxy as corporate governance system (Total_Q8-11) with independent variables indicated as economic factor (Tec_Q12-21) societal and cultural factor (TSc_Q22-25), Corruption and bribery (Tcorrpt_Q26-31), political environment (Tpol_Q32-36), ownership structure (Town_Q37-41) and accounting system (Tacct_Q42-44). Other control variables G_R and N_R include dummies indicating if the firms are located in Ghana and Nigeria with respondents are regulator bodies or non-regulatory stakeholders of corporate governance (the reference category being South Africa firms). Finally, μ_i is the random error term, which is independently and identically distributed.

3.12. The descriptive statistics on institutional characteristics of corporate governance variables

This section presents the descriptive statistics (mean, and T-test) for corporate governance variables based on average per question for each section (group) in the survey questionnaire. The Table below illustrate the result of the descriptive statistics.

Table 2. Showing descriptive statistic of corporate governance variables based on average per question for each group in the survey questionnaire

Firms in Sub-Saharan Africa Anglophone region				
Variables	***Code***	***Mean***	***T-test***	***N***
Regulatory framework	Trfw_(Q12-16)	2.53*	-10.51	541
Enforcement	Tenfm_(Q17-19)	2.64*	-10.60	541
Disclosure and Transparency	Tdis_(Q20-23)	2.48*	-12.47	541
Shareholder rights	Tshrt_(Q24-27)	3.34*	6.54	541
Ownership concentration	Towc_Q28-30)	4.28*	49.62	541
Corporate governance system	TCg_(Q8-11)	3.57*	21.04	541
Ghanaian firms				
Regulatory framework	Trfw_C	3.02	0.37	150
Enforcement	Tenfm_D	2.06*	11.75	150
Disclosure and Transparency	Tdis_E	2.54*	-6.26	150
Shareholder rights	Tshrt_F	3.17*	2.74	150
Ownership concentration	Towc_G	4.25*	22.85	150
Corporate governance system	TCg_styB	3.18*	4.50	150
Nigerian firms				
Regulatory framework	Trfw_C	1.99*	-24.42	320
Enforcement	Tenfm_D	2.22*	-15.00	320
Disclosure and Transparency	Tdis_E	2.15*	-19.44	320
Shareholder rights	Tshrt_F	2.40*	-19.88	320
Ownership concentration	Towc_G	4.23*	41.51	320
Corporate governance system	TCg_styB	3.47*	17.16	320
South African firms				
Regulatory framework	Trfw_C	3.90*	11.32	71
Enforcement	Tenfm_D	3.52*	-9.74	71
Disclosure and Transparency	Tdis_E	3.85*	10.09	71
Shareholder rights	Tshrt_F	3.39*	8.22	71
Ownership concentration	Towc_G	4.25*	15.26	71
Corporate governance system	TCg_styB	4.55*	32.65	71

Note: This table reports the summary descriptive statistic for the variables of the study. The dependent variable is indicated as total corporate governance system which is represented by Total_cg is the addition of all the items or variable under section B of the survey questionnaire. The Independent variables are regulatory framework is shown as total regulatory framework indicated by Trfw_C which is the addition of all items or variables under section C of the survey questionnaire, enforcement is illustrated as total enforcement represented as Tenfm_D which is the addition of all the items or variable under section D of the survey questionnaire, transparency and disclosure is shown as total disclosure and transparency is indicated as Tdis_E which is the addition of all items or variable within section E of the survey questionnaire, Total shareholder rights represented as Tshrt_F is the addition of all items under shareholders rights in section F, and ownership concentration shown as Towc_G is the total items or variable under section G of the survey questionnaire.

** T-Test Indicate that the response is significantly different from 3 (Undecided) at 5% level of significance (1.96). SD is shown as standard deviation for each variable based on average per question for each group in the survey questionnaire*

**T-Test value is equal to mean value minus 3 over standard deviation divide by square root of the number (μ-3/SD/$\sqrt{n}$)*

3.13. Results of the descriptive statistics on role and responsibilities of firm's boards of directors

This section shows the descriptive and frequency distribution for items or statements related to the role and responsibility of firm's board of directors. The Tables below illustrates the findings of the descriptive statistics and frequency distribution.

Table 3. Showing the descriptive statistic on role and responsibility of firm's boards of directors in Sub-Saharan Africa Anglophone countries

Variables	*Countries*	*N*	*Mean*	*T-stat.*
Corporate Strategy (Q31)	Ghana	150	2.33*	-6.46
	Nigeria	320	4.13*	26.25
	South Africa	71	2.01*	-10.83
	Sub-region(SSAA)	541	3.04	0.69
Executive Compensation (Q32)	Ghana	150	1.85*	-17.39
	Nigeria	320	1.82*	-31.51
	South Africa	71	1.72*	-13.48
	Sub-region(SSAA)	541	1.90*	-30.46
Board Effectiveness (Q33)	Ghana	150	3.02	0.81
	Nigeria	320	3.45*	6.60
	South Africa	71	2.03*	11.68
	Sub-region(SSAA)	541	3.15*	2.68
Financial Reporting (Q34)	Ghana	150	3.34*	2.85
	Nigeria	320	3.84*	13.79
	South Africa	71	2.17*	-9.20
	Sub-region(SSAA)	541	3.48*	8.59
Board Transparency (Q35)	Ghana	150	3.70*	6.54
	Nigeria	320	3.92*	15.82
	South Africa	71	2.06*	11.48
	Sub-region(SSAA)	541	3.62*	11.63
Enforcement Rules (Q36)	Ghana	150	2.84	-1.43
	Nigeria	320	3.64*	9.38
	South Africa	71	2.01*	-9.81
	Sub-region(SSAA)	541	3.21*	3.62
Board disclosure (Q37)	Ghana	150	3.97*	9.48
	Nigeria	320	4.08*	18.76
	South Africa	71	2.52*	-3.89
	Sub-region(SSAA)	541	3.84*	16.01
Board duality (Q38)	Ghana	150	4.49*	26.07
	Nigeria	320	4.48*	35.30
	South Africa	71	4.53*	19.83
	Sub-region(SSAA)	541	4.50*	48.86

**T-test indicates that the response is significantly different from 3 (undecided) at 5% level of Significant (1.96). SD is shown as standard deviation for each of the statement in the survey questionnaire- T-Test value is equal to mean value minus 3 over standard deviation divide by square root of the number (μ-3/SD/√n).*

Table 4. Showing descriptive statistic of external factors variables effects on corporate governance of firms based on average per question for each group in the survey questionnaire

SSAA firms				
Variables	**Code**	**Mean**	**T-test**	**N**
Economic	Tecon_(Q39-48)	4.11*	62.97	541
Societal and Cultural	Tscf_(Q49-52)	4.42*	67.40	541
Corruption and bribery	Tcorpt_(Q53-58)	4.54*	79.60	541
Political environment	Tpol_(Q59-63)	4.12*	37.75	541
Ownership structure	Tows_(Q64-68)	2.62*	-18.81	541
Accounting System	Tacct_(Q69-71)	4.18/*	49.90	541
Corporate governance system	TCg_(Q8-Q11)	3.57*	21.04	541
Ghanaian Firms				
Economic	Tecon_(Q39-48)	4.11*	28.32	150
Societal and Cultural	Tscf_(Q49-52)	4.30*	27.93	150
Corruption and bribery	Tcorpt_(Q53-58)	4.45*	32.29	150
Political environment	Tpol_(Q59-63)	4.21*	21..48	150
Ownership structure	Tows_(Q64-68)	2.32	-16.66	150
Accounting System	Tacct_(Q69-71)	4.18*	27.27	150
Corporate governance system	TCg_(Q8-Q11)	3.18*	4.50	150
Nigerian Firms				
Economic	Tecon_(Q39-48)	4.11*	53.67	320
Societal and Cultural	Tscf_(Q49-52)	4.45*	58.14	320
Corruption and bribery	Tcorpt_(Q53-58)	4.56*	68.04	320
Political environment	Tpol_(Q59-63)	4.16*	30.97	320
Ownership structure	Tows_(Q64-68)	2.78*	-9.84	320
Accounting System	Tacct_(Q69-71)	4.12*	34.54	320
Corporate governance system	TCg_(Q8-Q11)	3.47*	17.16	320
South African Firms				
Economic	Tecon_(Q39-48)	4.08*	22.20	71
Societal and Cultural	Tscf_(Q49-52)	4.52*	25.62	71
Corruption and bribery	Tcorpt_(Q53-58)	4.63*	36.14	71
Political environment	Tpol_(Q59-63)	3.74*	9.74	71
Ownership structure	Tows_(Q64-68)	2.46*	-13.00	71
Accounting System	Tacct_(Q69-71)	4.46*	30.00	71
Corporate governance system	TCg_(Q8-Q11)	4.55*	32.65	71

Note: This table reports the summary descriptive statistic for the variables of the study. The dependent variable is indicated as total corporate governance system which is represented by TCg_(Q8-Q11) is the addition of all the items or variable under section B of the survey questionnaire. The Independent variables are external factors such as economic is shown as total economic factors indicated by Tecon_(Q39-48) which is the addition of all items or variables under section I of the survey questionnaire, total societal and cultural is illustrated as Tscf_(Q49-52) which is the addition of all the items or variable under section J of the survey questionnaire, corruption and bribery is shown as total corruption and bribery is indicated as Tcorpt_(Q53-58) which is the addition of all items or variable within section K of the survey questionnaire, Total political environment represented as Tpol_(Q59-63) is the addition of all items under environment in section K, ownership structure total is shown as Tows_(Q64-68) is the total items or variable under section M of the survey questionnaire and accounting system total indicated as Tacct_(Q69-71) is the addition of all items or statements under accounting system in section N of the survey questionnaire.

**T-Test value is Indicate that the response is significantly different from 3 (undecided) at 5% level of significance (1.96). T-Test equal to mean value minus 3 over standard deviation divide by square root of the number (μ-3/SD/$\sqrt{n}$)*

4.1. Results of the effect of institutional characteristics of corporate governance and the corporate system

This section provides empirical evidences on institutional characteristics of corporate governance and corporate governance system. Below are the model estimate and the Table showing results of the data analysis.

Table 5. Showing OLS estimate of corporate governance system on institutional characteristics of corporate governance

$$\text{Total\_cg} = \beta_0 + \beta_1(\text{Trfw\_C}) + \beta_2(\text{Tenfm\_D}) + \beta_3(\text{Tdis\_E})_+ \beta_4(\text{Tshrt\_F}) + \beta_5(\text{Towc\_G}) + \beta_6(\text{RG}) + \beta_7(\text{RN}) + \mu_i$$

Dependent variable: Total effective corporate governance system.

Variables	*All observation for the countries*	*All countries with Ghana and Nigeria as dummy*	*Ghana*	*Nigeria*	*South Africa*
	(1)	(2)	(3)	(4)	(5)
Intercept	6.18** 0.93 (6.64)	15..08** 1.12 (13.43)	7.72** 1.45 (5.31)	12.87** 1.35 (9.54)	10.56** 2.41 (4.38)
Regulatory framework	0.05* 0.03 (1.87)	-0.02 0.03 (-0.07)	0.14** 0.04 (3.01)	-0.07* 0.03 (-1.10)	0.15** 0.06 (2.56)
Enforcement	0.42** 0.04 (9.56)	0.16** 0.05 (3.52)	0.31** 0.07 (4.71)	-0.12 0.05 (-0.31)	0.32* 0.14 (2.32)
Disclosure & transparency	0.15** 0.04 (4.53)	0.07* 0.03 (2.05)	0.06 0.05 (1.18)	0.06 0.05 (1.22)	0.01 0.08 (0.18)
Shareholders' rights	-0.04 0.03 (-1.59)	-0.02 0.02 (-0.83)	-0.01 0.04 (-0.16)	-0.05 0.07 (-0.82)	-0.05 0.11 (-0.41)
Ownership concentration	0.24** 0.06 (4.25)	0.05 0.05 (1.03)	0.03 0.08 (0.43)	0.14* 0.08 (1.90)	0.14 0.09 (1.65)
Regulators		0.57** 0.19 (3.00)			
Ghana		-4.34** 0.35 (-12.78)			
Nigeria		-3.36** 0.34 (-9.89)			
R-square	0.29	0.45	0.46	0.05	0.22
F-statistic	44.59	62.54	29.62	3.19	3.68
No of observation	541	541	150	320	71

The dependent variable is indicated as total effective corporate governance system which is the addition of all the items or variable under section B of the survey questionnaire. The Independent variables are regulatory framework is shown as total regulatory framework which is the addition of all items or variables under section C of the survey questionnaire, enforcement is illustrated as total enforcement which is the addition of all the items or variable under section D of the survey questionnaire, transparency and disclosure is shown as total disclosure and transparency which is the addition of all items or variable within section E of the survey questionnaire, Total shareholders' rights is the addition of all items under shareholders rights in section F, and ownership concentration is the total items or variable under section G of the survey questionnaire.

Countries dummies indicating if the sample is Regulatory bodies and it is located in Ghana, Nigeria (reference category being South Africa there is a test for outliers in order to examine the robustness of the samples.

The numbers with significant level are coefficient value, while the middle numbers are the standard error and Numbers in the parentheses refer to t-statistics.

F-Statistic is significant at 1% and 5% critical value

***significant at 1 percent level.*

**significant at 5 percent level.*

**Heteroskedasticity is corrected using White-adjusted standard errors.*

Table 5 columns 2 illustrate the regression result for all the countries together; there is evidence of positive significant relationship between enforcement and corporate governance system with coefficient of 0.16. Also, disclosure and transparency has a positive significant coefficient of 0.07 relationships with corporate governance system.

Moreover, we find that firms in Ghana and Nigeria are negatively significant relation with corporate governance system. However, firms in South Africa that is used as a reference category have a positive significant relation with corporate governance system. This finding suggests that South African firms seem to have better corporate governance system than firms in Ghana and Nigeria. This may be due to the past reforms carried out by South Africa government on corporate governance practices of firms such as the King Reports of corporate governance (1994, 2002 and 2010). The Reports followed the corporate governance international standard such as Cadbury report of UK and OECD guideline on corporate governance practices.

Furthermore, Table 5 columns 3, and 5 illustrate the OLS estimate at country level for firms in Ghana, and South Africa, as evidence in each country. We find that regulatory framework and enforcement have a positive significant relation with corporate governance.

In Column 4 for Nigerian firms the result shows that regulatory framework has negative significant relation with corporate governance system. This result implies that Nigerian corporate governance may have a weak regulatory framework that can promote sound corporate governance. In addition, this finding reveals that in Nigeria there may be a lack of enforcement of corporate governance. Also in Nigerian firms ownership is concentrated as a result of lack of enforcement of corporate governance.

In Table 5 Column 4 in Nigeria, there is evidence of low value of R-square. The reason for this value there may be other factors that can affect corporate governance system which are not mention in this study.

4.2. Results of the data analysis effects on role and responsibility of firm's boards of directors on governance system

This section provides empirical evidences on impact of the firm's board of director roles and responsibility on corporate governance system of firms. Table below reports the model estimate and results of the data analysis

Table 6. Showing OLS estimate on corporate governance system and role and responsibility of firm's boards of directors

$$Total\_cg = \beta_0 + \beta_1(corp\_strgy) + \beta_2(Exec\_comp) + \beta_3(Bod\_Eff) + \beta_4(Bod\_Frept) + \beta_5(Bod\_Trpy) + \beta_6(Bod\_Enfm) + B_7(Bod\_Disc + \beta_8(Bod\_Duality) + \beta_9(G) + \beta_{10}(N) + \beta_{11}(GR) + \beta_{12}(NR) + \mu_i$$

Dependent variable: Total effective corporate governance system

Variables	*All observation for the countries*	*All the countries with Ghana and Nigeria as dummy*	*Ghana*	*Nigeria*	*South Africa*
	(1)	(2)	(3)	(4)	(5)
Intercept	12.63 0.61 (20.57)	17.01** 0.63 (27.12)	11.29** 1.02 (11.12)	13.30** 0.80 (16.55)	15.80** 1.79 (8.85)
Corporate strategy	-0.22** 0.10 (-2.18)	-0.09 0.10 (-0.32)	0.08 0.14 (0.54)	0.12 0.14 (0.83)	-0.46 0.33 (-1.40)
Executive compensation	0.18 0.12 (1.41)	0.06 0.10 (0.63)	-0.09 0.20 (-0.46)	0.19 0.16 (1.15)	0.26 0.29 (0.91)
Board effectiveness	0.20* 0.11 (1.85)	0.12 0.09 (1.40)	-0.02 0.14 (-0.11)	0.31** 0.12 (2.58)	0.86** 0.30 (2.82)
Financial reporting	-0.07 0.12 (-0.56)	-0.13 0.10 (-1.29)	0.01 0.15 (0.08)	-0.19 0.15 (-1.25)	-0.45 0.34 (-1.32)
Board Transparency	0.57** (0.13) (4.313)	0.19* 0.11 (1.53)	0.09 0.17 (0.53)	0.09 0.16 (0.58)	0.02 0.30 (0.01)
Enforcement rules	0.03 0.13 (0.20)	0.08 0.11 (0.75)	-0.06 0.17 (-0.36)	0.05 0.13 (0.36)	-0.36 0.30 (-1.21)
Board disclosure	0.33** 0.14 (2.44)	0.09 0.11 (0.83)	0.60** 0.17 (3.47)	-0.36** 0.17 (-2.07)	0.04 0.21 (0.18)
Board duality	-0.64** 0.15 (-4.26)	-0.23* 0.13 (-1.81)	0.19 0.24 (0.82)	-0.27* 0.16 (-1.72)	0.60** 0.30 (1.99)
Regulator		0.60** 0.19 (3.07)			
Ghana		-5.04** 0.31 (-16.40)			
Nigeria		-3.59** 0.30 (-11.97)			
R-square	0.17	0.45	0.22	0.06	0.27
F-statistic	13.16	39.39	5.08	3.09	2.85
No of observation	541	541	150	320	71

The dependent variable is indicated as total effective corporate governance system which is represented by corporate governance system is the addition of all the items or variable under section B of the survey questionnaire. The Independent variables are the role and responsibility of boards of directors which comprises Level of commitment to corporate strategy (Corporate Strategy), adequate attention to executive compensation (Executive Compensation), Effective committed to their responsibility (Board Effectiveness), Level of ensuring of a formal and transparent board nomination and election process (Board Transparency), Level of concern about enforcement of corporate governance policy (Enforcement of corporate governance policy), Level of concern to the integrity of companies financial reporting system (Financial Reporting system), Level of ensuring of a formal and transparent board nomination and election process (Board Transparency), Level of concern about enforcement of corporate governance policy (Enforcement of corporate governance policy), Supervision of process of disclosure and communication (Board disclosure and communication) and Separation between roles of Chairman and Chief Executive Officer (CEO) (Board non-duality).

Countries dummies indicating if the sample is Regulatory bodies and it is located in Ghana, Nigeria (reference category being South Africa there is a test for outliers in order to examine the robustness of the samples.

The numbers with significant level are coefficient value, while the middle numbers are the standard error and Numbers in the parentheses refer to t-statistics.

F-Statistic is significant at 1% and 5% critical value

***significant at 1 percent level.*

**significant at 5 percent level.*

**Heteroskedasticity is corrected using White-adjusted standard errors.*

In Table 6 Column 2 there is evidence that board transparency has a significant positive impact on corporate governance system with coefficient. However, board duality has a significant negative relationship with corporate governance system. This result is based on the perception of the respondents. In addition, the result of the estimate on regulators shows a positive significant relationship with corporate governance system.

The above results suggest that regulatory bodies for corporate governance of firms may likely promote good corporate governance system. Firms in Ghana and Nigeria have negatively significant with corporate governance system. This result implies that the role and responsibilities of the board of directors of firms in Ghana and Nigeria are less likely to promote corporate governance system in compared with the board of directors of South African firms.

Moreover, within the country, Table 6 Column 3 illustrates that in Ghana firms' board supervision on disclosure and communication has a significant positive effect on corporate governance system. While in Nigerian firm as it show in Column 4 board effectiveness has a positive significant with corporate governance system. Supervision on disclosure, communication and board effectiveness have a significant negative effect on corporate governance system. This finding suggests that the board of directors in Ghanaian firms are more concern on supervision process on disclosure and communication in their firms than that of Nigerian firms. Thus, board effectiveness to their responsibility is more pronounced within Nigerian firms. This may be due to various financial scandals that occurred recently in financial and non-financial firms in Nigeria.

There is a low value of R-square in the estimate for Nigeria. Other factors that can affect corporate governance system which are not discussed in this study could be responsible for the low value.

In the case of South African firms, board effectiveness and board duality have significant positive effect on corporate governance (see in Table 6 Column 5). This result implies that board members of firms in South Africa are more effective in carrying out their role and responsibility in order to promote good corporate governance practice. In addition, the separation between role and responsibility of the Chairman and the Chief Executive officer is likely to promote good corporate governance of firms in South Africa. This result is based on perception of the respondents.

4.3. Results on effect of external factors on corporate governance system of firms

This section provides the regression results on the effect of external factors such as economic, societal and cultural, corruption, political environment, ownership structure and accounting system and corporate governance system of firms. Below are the model estimate and the results of the data analysis.

This study examines external factors on corporate governance system as shown in Column (1), (2), (3), (4) and (5) in Table 7. In Column 2 we find that political environment have a negative effect on corporate governance system. This result implies that the political environment in the SSAA region does not enhance corporate governance system. This may be due to government exerting substantial influence on process of acquiring ownership of firms. In addition, politicians and friends of government in power interfere on work of regulatory and supervisory bodies of corporate governance. Also, prolong military rules across the countries in the Sub-region did not help the matter because during the military regimes there are no corporate governance frameworks. Also, there are no institutions to formulate policies on corporate governance practices.

The Accounting system adopted can promote the development of effective corporate governance. This evidence suggests that accounting system is one of the modifiers of corporate governance practice. It is through the quality of accounting system shareholders, potential investors and other stakeholders will be able to receive financial information about their firms.

Besides this, Column 3, 4 and 5 illustrate the estimate within each country. There is evidence that in Ghanaian firms' societal and cultural factor has a negative significant effect with coefficient of -0.16 on corporate governance system. This is likely to hinder the promotion of sound corporate governance system. This finding may be due to the guidelines on corporate governance system adopted does not taken the socio-cultural environment of the country into consideration in the formulation of the principle on corporate governance guideline.

Table 7. The effect of external factors on corporate governance system of firms

$$Total\_cg = \beta_0 + \beta_1(Tec\_C) + \beta_2(Tsc\_D) + \beta_3(Tcorrpt\_E)_+ \beta_4(Tpol\_F) + \beta_5(Town\_G) + \beta_6(Tacct\_H) + \beta_7(G_R) + \beta_8(N_R) + \mu_i$$

Dependent variable: Total effective corporate governance system

Variables	*All observation for the countries*	*All countries with Ghana and Nigeria as dummy*	*Ghana*	*Nigeria*	*South Africa*
	(1)	(2)	(3)	(4)	(5)
Intercept	10.34** 1.49 (6.96)	16.40** 1.23 (13.31)	13.14** 1.94 (6.79)	11.43** 1.60 (7.16)	5.72** 2.84 (2.02)
Economic	-0.03 0.03 (-0.88)	-0.02 0.02 (-0.69)	-0.01 0.04 (-0.23)	0.05 0.03 (1.51)	0.06 0.04 (1.47)
Societal and cultural	0.08 0.06 (1.33)	-0.04 0.05 (-0.84)	-0.16* 0.06 (1.88)	0.04 0.07 (-0.61)	-0.01 0.09 (-0.06)
Corruption	0.08* 0.05 (1.70)	0.03 0.04 (0.70)	0.06 0.06 (1.07)	-0.02 0.05 (-0.37)	0.20** 0.07 (2.75)
Political environment	-0.18** 0.03 (-5.52)	-0.05** 0.03 (-1.99)	-0.18** 0.05 (3.70)	0.02 0.04 (0.49)	-0.08 0.05 (-1.49)
Ownership structure	-0.03** 0.04 (-0.08)	-0.03 0.04 (-0.85)	0.19** 0.06 (3.02)	-0.23** 0.05 (-4.43)	-0.09 0.09 (-1.05)
Accounting system	0.42** 0.06 (6.55)	0.29** 0.05 (5.64)	0.21** 0.10 (2.22)	0.24** 0.06 (3.79)	0.52** 0.13 (4.09)
Regulators		0.47** 0.19 (2.46)			
Ghana		-5.14** 0.28 (-18.17)			
Nigeria		-3.64** 0.26 (-13.86)			
R-square	0.14	0.47	0.29	0.12	0.38
F-statistic	14.52	52.59	9.64	7.31	6.75
No of observation	541	541	150	320	71

The dependent variable is indicated as total corporate governance system which is represented by corporate governance system is the addition of all the items or variable under section B of the survey questionnaire. The Independent variables are economic factor is shown as total economic factor which is the addition of all items or variables under section C of the survey questionnaire, societal and cultural factor is illustrated as total societal and cultural which is the addition of all the items or variable under section D of the survey questionnaire, corruption and bribery is shown as total corruption and bribery which is the addition of all items or variable within section E of the survey questionnaire, Total political environment is the addition of all items under political environment in section F ownership structure is the total items or variable under section G and accounting system is the total of all items or statements under section H of the survey questionnaire.

Countries dummies indicating if the sample is Regulatory bodies and it is located in Ghana, Nigeria (reference category being South Africa there is a test for outliers in order to examine the robustness of the samples.

The numbers with significant level are coefficient value, while the middle numbers are the standard error and numbers in the parentheses refer to t-statistics.

F-Statistic is significant at 1% and 5% critical value

***significant at 1 percent level.*

**significant at 5 percent level.*

**Heteroskedasticity is corrected using White-adjusted standard errors.*

In addition, the political environment in Ghana has a negative significant relationship with coefficient of -0.18 on corporate governance system. It is recently that Ghana has a democratically stable government as a result the institutional frameworks for corporate governance is not so strong to promote sound corporate governance. Also, this may be an interference of the government and politician on the regulatory and enforcement bodies of corporate governance. The accounting system within the firms in Ghana has a positive impact with coefficient of 0.29 on corporate governance system. This result suggests that proper adoption of accounting standard may improve the development of corporate governance in Ghanaian firms.

In Nigerian firms we find a negative significant effect of ownership structure on corporate governance system with estimate coefficient of -0.23. This result shows that ownership structure of firms in Nigeria may hinders effective corporate governance system. This is likely due to lack of proper method of acquiring ownership through stockholding within firm, the controlling owners and the incompetency of those on board of management. However, we find that in Nigerian firms accounting system has a significant positive relationship on corporate governance system with coefficients of 0.21. This evidence indicates that adoption and implementation of proper accounting standard may promote corporate governance practice within firms. In addition, accounting system is one of the accelerators or modifier for corporate governance practices. It is through accounting system that will enable the shareholders, potential investors and other stakeholders of corporate governance of firms received financial information. The estimate shows a small R-square value for Nigeria in Column 4. This because there may be other factors not mention in this study that can affect the corporate governance practices in Nigerian firms.

In South African firms corruption has a positive significant impact on corporate governance system with coefficient of 0.20. This result implies that in South Africa, development of corporate governance seem to be affected by corruption in such a way that corruption interferes with different corporate governance policy adopted by the government of South Africa. This may hinder the promotion of good corporate government of firms in South Africa. Thus, accounting system has a positive significant effect with coefficient of 0.52 on corporate governance system. This result shows that the positive effect on accounting practice on corporate governance system may likely promote sound corporate governance practice in South Africa.

5. CONCLUSION

The findings from this study make a contribution to the literature that enforcement, disclosure and transparency are likely to improve corporate governance system in all the countries together. In addition, there is a positive significant relationship between the regulatory framework and enforcement of corporate governance in each country such as Ghana and South Africa.

Another contribution of this study is that in Nigerian firms, regulatory framework has a significant negative effect on corporate governance system. This finding seems to be due to a lack of proper implementation of regulatory framework of corporate governance by the institutional bodies such as Securities Exchange Commission (SEC), Central Bank of Nigeria (CBN) and National Insurance Commission (NAICOM). Moreover, lack of proper implementation may possibly be as a result of corruption among the officials of institutional bodies. Furthermore, there are laws in the books and laws in practice, however in Nigeria there are laws in the book for regulatory framework and enforcement policy of corporate governance but there are no laws in practice to execute those rules and regulation and enforcement of corporate governance practices. The institutional bodies and corporate governance system may look good on papers but when they are compromised with corruption, lack of implementation and incompetence the result is likely weak corporate governance practices among firms in Nigeria.

Base on the overall finding in each of the countries there is evidence that South Africa may be better than Ghana and Nigeria in term of regulatory framework and enforcement although corruption seem to hinder the promotion of sound corporate governance in South Africa. This finding supports the World Bank ROSC (2010) group report on firms in Ghana and Nigeria that generally there is a need for improvement of corporate governance practice for those countries. However, the improvements of corporate governance practices in South African firms have been found to be important because of King Report 1994, and King Report of 2002. The primary objective of the Reports is to promote the highest standard of corporate governance in South Africa.

Moreover, we examine the effect of role and responsibility of firms boards of directors in the corporate governance system. This study provides the empirical evidence in all the selected countries that the commitment of board to transparency in board nomination and election process improve corporate governance system. However, board duality (separation of role between the chairman and CEO) may hinder corporate governance practices. This finding may be due to incompetence and inefficiency of both the chairman and CEO. This evidence implies that there may be separation of roles and responsibilities between the Chairman and Chief Executive officer. However, this is less likely to promote good corporate governance practice. This result is based on the opinion of the respondents from the questionnaire.

Nevertheless, in South African firms' board effectiveness, executive compensation and board duality (separation between the role and responsibility of Chairman) may strongly promote a sound corporate governance system. This finding may be due to introduction of King II and III Reports on Code of corporate governance that lay more emphasis on issue of board of directors' effective role and responsibility, separation of role and responsibility between Chairman and CEO and executive compensation.

Furthermore, this study revealed that corruption deters rules and laws that promote effective corporate governance particularly in South Africa; as a result of institutionalised corruption in the sub-region. This finding supports the evidence that in recent time, corruption is prevalent across sectors of the economy and in society at large. Consequently, the rules and laws can be easily altered or not properly implemented by the enforcement and supervisory agencies of corporate governance. In addition, evidence from this study indicates that there is lack of due process in the acquisition of ownership of firms in Nigeria when compared with Ghanaian firms.

However, the accounting system plays a vital role in promoting corporate governance across countries in the region, and in each country such as Ghana, Nigeria and South Africa. This result suggests that it is through the quality of accounting system that shareholders, potential investors and other stakeholders of firms will be able to receive financial information about their firms.

6. RECOMMENDATION

Based on the findings which are the perception or opinion of the respondents from the finding on this study, we recommend that there is need for general reform of corporate governance of firms in Nigeria by issue only one corporate governance code of best practices for each industry such as financial or non-financial. This should follow the international standard both in context and the implementation of the codes. The corporate governance code should be reviewed as happened in UK Financial Reporting Council in 2012, and to be tailored towards international corporate governance standard such as Cadbury Report 1992 and King Report (1994, 2002).

The establishment of Financial Reporting Council of Nigeria FRC Act 2011 is significant; under this Act there is section four which provide for a directorate of corporate governance with objectives and function toward effective corporate governance practices of firms. As a result, this Act should be well implemented without any interference from politicians. Also, there should be prudent monitoring of law and stringent penalties with requirements of corporate governance rules, regulatory framework and enforcement policy under this FRC 2011 Act. Therefore, any official of the institutional bodies or any stakeholders found guilty of the offence under this Act should be punished in form of penalty.

In Ghana there is a need for Financial Reporting Council (FRC) in order to have more regulatory and supervisory bodies on corporate governance practices for financial and non-financial firms. The respondents from this study provide comments that the Ghana Companies law of 1963 Act 179 have been found to be outdated. There should be a reform of the Companies Act 179 which must include modern corporate code and law guiding Business Corporation. This must also include norms on international standard for corporate governance practices. Furthermore, the shareholders of firms in Sub-Saharan Africa Anglophone countries need strong shareholders' activism through the establishment of shareholders association with aims and objectives of promoting the interest, welfare, enlightenment, and dissemination of information related to management of firms.

In addition, we recommend that the role and responsibility of the boards of directors in the area of corporate strategy need to be improved by increasing the number and role of independent directors, which will see the development of corporate strategy as team work with themselves and management. They will all work together to make more valuable contributions toward better corporate strategy that will promote corporate governance system.

Furthermore, in all the selected countries together there is a need for more strengthening of the role and responsibility of firm's boards of directors and proper monitoring of the board members by regulatory and supervisory agencies. The shareholders need to have control over the boards of directors by using voting power and hold the board of directors for non-performance through shareholders activism. The shareholders can influence corporate behaviour through shareholders activism in order to exercise their rights as the owners of the firms. They should ensure that the board of directors are qualified for their positions, have a clear understanding of their role and are not subjected to undue influence.

Based on the finding from external factor affecting corporate governance, this study recommend that the guidelines and regulation of corporate governance across countries in the region particularly in Ghana should be drawn in such a way that it reflects the socio-political and cultural environment of their respective country. The regulator believes that reduction in corruption and bribery can move corporate governance forward. As a result there is a need to strengthen the anti-corruption agencies to provide more public campaigns against corruption and allow legal institution to prosecute corrupt officers and politicians. Thus, from our findings, the regulatory bodies of corporate governance believe that reduction in corruption can enhance good corporate governance practice. Also, the government and politicians should stop interfering with ministries and agencies responsible for monitoring, enforcing corporate governance particularly in Nigeria.

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Survey Questionnaire

Section A: Questions 1-7 are related to your background. Please mark(X) only one option.

1. Gender: Male □ Female □
2. Occupation:
   - Legislator □
   - Regulator □
   - Academician □
   - Individual investor □
   - Institutional investor □
   - Accountant/Auditor □
   - Executive Director □
   - Non-Executive Director □
   - Company Executive (CEO) □
   - Company employee □
   - Judiciary or Legal □
   - Other (Specify)…………. □
3. Years of experience in your occupation: ____ year
4. Formal education: Diploma/Certificate □ Bachelor Degree □ Master Degree □ Doctoral Degree □ Professional certificate/other □
5. Your location: ____
6. How do you rate your knowledge on corporate governance of firms in your country
   Low □ Medium □ High □
7. Type of Firm: Financial Firm □ Non-Financial Firm □

Section B: Statements 8-11 relate to your views on effectiveness of corporate governance practice. Please rate the extent to which you agree with each statement (X) according to the scale below. Please this applies to all sections.

1=strongly disagree 2=disagree 3=Undecided 4=Agree 5=strongly Agree

8. There are adequate and effective rules and laws that promote the practice of good corporate governance of firms in my country of operation.	1	2	3	4	5
9. The supervisory, regulatory and enforcement agencies have the power, resources and authority to enforce compliance with laws and regulations and guidelines on corporate governance in my country of operation.	1	2	3	4	5
10. A good legal system in my country of operation helps to improve the corporate governance of firms.	1	2	3	4	5
11. A well-organized legislature and sound regulatory and supervisory agencies in place promote good corporate governance.	1	2	3	4	5

Section C: Statements 12-16 relate to your views on regulatory framework of corporate governance practice in your country.

12. Stock markets listing rules and corporate codes of conduct for firms are often abused or ignored.	1	2	3	4	5
13. The rules and regulation for appointing and removal of auditors are frequently violated.	1	2	3	4	5
14. Rules and regulations for a formal and transparent board nomination and election process of firms are often ignored.	1	2	3	4	5
15. Rules and regulation for disclosure and communication are not often followed	1	2	3	4	5
16. Rules and regulations regarding the required independent status of board members are often violated.	1	2	3	4	5

Section D: Statements 17-19 relate to your views on enforcement of corporate governance practice.

17. There is sufficient investigation of apparent non-compliance with laws/regulations by the enforcement agency.	1	2	3	4	5
18. There is appropriate legal protection of investors and creditors from fraud perpetrated by managers and controlling shareholders within firms.	1	2	3	4	5
19. There are appropriate mechanisms for investigating the illegal or inappropriate treatment of minority shareholders within firms.	1	2	3	4	5

Section E: Statements 20-23 relate to your views on transparency and disclosure of corporate governance practice.

20. Generally, in firms in your country, insider trading laws, rules and regulations are followed.	1	2	3	4	5
21. There is equal access to information for all shareholders in firms	1	2	3	4	5
22. There is confidence in the autonomy and independence of auditors for firms within your country.	1	2	3	4	5
23. There are transparency in mergers and acquisitions of firms in your country	1	2	3	4	5

Section F: Statements 24-27 relate to your view on shareholders' rights.

24. The basic shareholders rights in your firm are not protected	1	2	3	4	5
25. Minority shareholder rights of your firm are often violated	1	2	3	4	5
26. Minority shareholders are often not allowed to express their view at general meetings of firms in your country.	1	2	3	4	5
27. Shareholders are allowed to speak at company meetings only if they are known to agree with the board of directors.	1	2	3	4	5

Section G: Statements 28-30 relate to your views on ownership concentration.

28. The firms in your country have a variety of composition of ownership	1	2	3	4	5
29. There is large concentration of ownership (few shareholders having majority of shares) in firms in your country.	1	2	3	4	5
30. Preferential treatment is often given to large shareholders of firms in your country	1	2	3	4	5

Section H: Statements 31-38 relate to your view regarding role and responsibility of board of directors.

31. Board members are not fully committed to reviewing and guiding corporate strategy in your firm.	1	2	3	4	5
32. Board members of companies in your country do not pay adequate attention to executive compensation in your firm.	1	2	3	4	5

33. Board members of companies in your country are not effectively committed to their responsibility in your firm	1	2	3	4	5
34. The board members often demonstrate a lack of concern as to the integrity of companies' financial reporting system of firm in your country.	1	2	3	4	5
35. Board members show lack of concern in ensuring a formal and transparent board nomination and election process in your firm.	1	2	3	4	5
36. In your firm of country operation, board members do not show concern about proper monitoring and enforcement of laws, rules and regulations of corporate governance practices.	1	2	3	4	5
37. Board members do not adequately supervise the process of disclosure and communication in your firm.	1	2	3	4	5
38. There is separation between the roles of the chairman and Chief Executive officer of firms in your country.	1	2	3	4	5

Section I: Questions 39-48 relate to your views on economic factors with regard to corporate governance practices.

39. Good corporate governance practice within firms is important in attracting domestic investment in a nation.	1	2	3	4	5
40. Good corporate governance practice within firms is important in attracting foreign investment in a nation.	1	2	3	4	5
41. Corporate governance influences the growth and development of firms and this, in turn influences the economy of a nation.	1	2	3	4	5
42. Shareholder protection can affect the level of equity markets.	1	2	3	4	5
43. Macro-economic policies influence the way firms are managed in such way as to influence the relationship between firms and shareholders.	1	2	3	4	5
44. Banks play a predominant role in financing of firms in your country.	1	2	3	4	5
45. Firms in your country own and control major local banks by creating a form of conglomerate business organization.	1	2	3	4	5
46. There are conflicts and problems associated with corporate governance before or after privatization of state-owned companies in your country.	1	2	3	4	5
47. There is no transparency in the sales of state-owned companies and appointment of the board of director in your country.	1	2	3	4	5
48. The local investors are unable to use voting power to enforce corporate governance and there is no effective corporate control.	1	2	3	4	5

Section J: Statements 49-52 relate to your views on societal, cultural and family factors upon corporate governance practices.

49. Corporate governance practices within firms should consider the interests of all stakeholders (employee, customers), individual and community goals.	1	2	3	4	5
50. Corporate governance guidelines and regulations should be drawn in such a way that they reflect the socio-political and cultural environment of each nation.	1	2	3	4	5
51. National culture affects enforcement procedures in accounting systems and these influences corporate governance practice of firms in your country.	1	2	3	4	5
52. The business ethics and values that characterize a society will influence the level of confidence in the integrity and probity of firms and capital markets.	1	2	3	4	5

Section K: Statements 53-58 relate to your views on the influence of corruption and bribery on corporate governance practices.

53. Reduction in corruption and bribery will help to improve corporate governance practices of firms	1	2	3	4	5
54. Levels of corruption in a country influence the ability of regulatory authorities to enforce compliance with corporate governance principles and accountability within firms.	1	2	3	4	5
55. Job security and payment of satisfactory living wages will influence the level of corruption.	1	2	3	4	5
56. Conflicts of interest, unsound ethics and greed influence the corporate governance practices of a firm.	1	2	3	4	5
57. Economic hardship will influence levels of corruption among employees to the extent that corporate governance practices are undermined within firms.	1	2	3	4	5
58. Lack of internal control system will influence levels of corruption among employees to the extent that corporate governance practices are undermined within firms.	1	2	3	4	5

Section L: Statements 59-63 relate to your views on how a country's political environment may influence corporate governance practices within firms.

59. The government exerts substantial influence over the ownership of companies in my country of operation.	1	2	3	4	5

60. The political environment, by influencing fiscal and monetary policies, has a substantial impact on corporate governance practices	1	2	3	4	5
61. Prolonged period of military or civilian rule in a country will influence the corporate governance practices of firms.	1	2	3	4	5
62. The government interferes with the work of regulatory and supervisory bodies with regard to appointments or incentives for company executive within firms.	1	2	3	4	5
63. Politicians exert undue influence over the ministries and agencies responsible for monitoring and enforcement corporate governance guidelines and regulations within firms.	1	2	3	4	5

Section M: Statements 64- 68 relate to your view on ownership structure in your firm.

64. The Board members and senior management are generally majority stock holders of companies in your country	1	2	3	4	5
65. Foreign national are generally the majority shareholders of companies in your country.	1	2	3	4	5
66. The government holds the majority of stock in companies in your country.	1	2	3	4	5
67. Family members generally hold the majority of stocks in companies in your country.	1	2	3	4	5
68. Where a single family dominates the management of a firm, this will be reflected in corporate governance practice of firm.	1	2	3	4	5

Section N: Statements 69-71 relate to your views on how accounting systems influence the corporate governance of firm within countries.

69. Firms prepare financial information that accord with statutory and ethical obligations in my country.	1	2	3	4	5
70. The Institute of Chartered Accountants or the equivalent (professional body of accountants) play a role in enforcing good accounting and financial reporting practices in my country of operation.	1	2	3	4	5
71. The Accounting Standards Board (national equivalent) issues standards that are in line with international accounting standards.	1	2	3	4	5

Section O: Statements 72 deal with any further comments.

72. Any further comments on issue of corporate governance of firms in your country

THE RESOURCE-BASED THEORY AND ITS ADHERENCE TO A SUPERIOR PERFORMANCE STRATEGY: AN ANALYSIS IN SMALL COMPANIES IN BRAZIL

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Abstract

This article aims to present cases where the adoption of emphasis on the strategy implementation in micro and small firms within the dominant paradigm of the Resource-Based View theory, a functionalist explanatory model, which reproduces sense making for superior and sustainable performance in high competitiveness sectors . According to Barney (1991), a response to superior performance is causal support within the Resource-Based View, later raised to the status of Resource-Based Theory. This theory is a superior explanatory basic model that explains that a firm's performance can be explained by the way its remarkable resources are managed. This understanding guides the managers' strategic thinking and explains why firms can, over time, expand markets, strengthen the brand, achieve higher profits and maintain competitive advantages, while others do not get the same success, even acting within the same industry. The research was qualitative through interviews of the firms' leaders, using the method of multiple cases in micro and small firms of the industry, trade, services and agribusiness sector. As a contribution, the work identified that the strategy practices have a connection with the RBV theory and principles of emphasis on inside out management based on the VRIO theory (resources that are: **V**aluable, **R**are, of difficult **I**mitation and can rely on **O**rganization to effective management).

Keywords: Resource Based View; Micro and Small Enterprises; Strategy

1. INTRODUCTION

Markets are increasingly global with advances in communications and logistics, facilities in export regulation, liberal policies on trade, balance of payments support, sharing of global innovations, global connection in the exchange of experiences and knowledge. Thus, there is an increased volatility of changes within this business' environment with guidance for fast markets in even shorter cycles, resulting in the expansion and complexity of competing companies. This is both for new small niches in the long tailed industry's sectors or large oligopolistic markets, which have driven executives to increasingly adopt flexible management attitudes, observing large and small movements in the markets, different synergistic opportunities with the business model. Having postures aimed at adjusting their organizations (structure and conduct, resources) to new local consumers' demands, national and global markets, as well as unexplored niches (PORTER, 1996; DRUCKER, 1999).

According to D'Aveni et al (2010), one of the authors of the industry's hyper-competitiveness theory, the increased competition in international markets confirms the implementation of new management tools and techniques, "reducing distances and power" between the countries in mismatched business plans with the political structure, vis a vis the logistical systems and economic interests that promote trade relations and the inclusion of new markets in the agenda of firms' strategic agent. The increase in the information flow, capital and trade in goods and services are factors that contribute greatly to the increased integration between countries and regions. This phenomenon not only stimulates the dynamics of economic developments issues, but also the synergistically connected aspects - social, culture, technology and natural resources, aiming at regulatory easing, legal clearance, consumption patterns homogenization that overcome cultural barriers and create new business between countries. (PARKER, 1992; GIDDENS, 2000).

Another highlighted observation is that with increasing competition in the markets and the increasing entry of new competitors, resulting from this globalization movement, rapid technological developments and changes in consumer behavior, the challenge for strategic decision makers is becoming increasing and complex (Oliveira Gonçalves and PAULA, 2013, p. 142). Executives and their respective Boards of Directors have been compelled to strive to find feasible paths to redirect its activities and mitigate the uncertainties caused by this fast pace change. It can be said that this search will also include certain exhaustion of more traditional management models, who have already showed signs of cooling down, being insufficient to confer competitive advantages to organizations that are sustainable and superior financial performance to the market's average.

Given this macro process, there is the removal of the micro-world of firms and vice versa. The two universes, the macro and the quantum of resource management in firms reflect each other in interactive and iterative relations in its logical explanatory consequentialism, interdependence. However, firms can adopt strategies that emphasize exogenous elements first (outside in) or endogenous, inside out emphasis aiming superior performance (Mintzberg, AHLSTRAND and LaMSEl, 2000).Corroborating the emphases, Chandler (1962) mentions that the visible hand of the manager, who formulates and implements the strategy, replaces the invisible hand of market forces of Adam Smith, highlighting therefore the relevance of executive action. However, for the strategy to be effectively implemented, besides organizational learning capacity being paramount, it is crucial the combination of elements such as physical, human and organizational capital.

Porter (1996), from the strategy perspective, mentions that the positioning school has lost its theoretical hegemony to explain the superior performance. He argues that, in view of the business dynamics in a more globalized world, where they are established, the possibility of the competitors copying, are isomorphic in products, services, processes, and entering the market position is stronger and more frequent, and this attack by rivals can turn the competitive advantage gained in a simple temporary advantage. What happens is that for an organization to maintain its position (in brand image, price, profitability) and overcome their rival, it becomes prerequisite delivering greater value to their customers, or at least creating value to its products and services which are comparable to the other, but in lower internal costs (PORTER, 1996).

Barney (1991) corroborates this thought, citing that organizations should seek unique positioning in the market, registering the brand in the customer's mind and being sustainable, by means of the already owned resources or those acquired under suitable conditions. This understanding comes within the strategic thinking for decades trying to understand why some organizations manage to consistently get market gain positions and maintain competitive advantage over time, while other organizations do not get the same success, even acting within the same industry and in similar conditions *ceteris paribus*.

One possible answer is exploited by Wernerfelt (1984) and Barney (1991), within the Resource-Based View (RBV), later raised to Resource-Based Theory, that part of the basic assumption that a company's performance can be explained by how their resources are used and managed. According to Barney and Hesterly (2007, p. 91), the RBV is "an economic theory that suggests that business performance is a function of the types of features and capabilities that they control." One explanation is that earned competitive advantage could be explained due to the control of resources and different capabilities, to the detriment of industry structure in which it operates and perpetrated rivalry in the markets. This sustainable competitive advantage is based on the fact that the company has resources and capabilities, which are considered valuable and hard to imitate by other competitors.

Given this lasting scenario, of high competition, the strategies adopted by companies to conduct their business and taking into account the scope of the universe of micro and small enterprises in the country, with more than 6 million enterprises, accounting for 99, 1% of the total number of companies in the country (SEBRAE, 2013), it is appropriate to conduct studies that seek to identify the adherence of the Resource-Based View approach in higher sense making performance.

In this way, the study seeks to answer the question: **Does the Resource-Based Theory explain the development of the strategy of micro and small enterprises reproducing the Superior Performance in highly competitive sectors?**

2. THEORETICAL PATH

This framework aims to theoretically support the option of this study on the concepts emphasis, identification of contents and results of the strategy and strategy implementation process in micro and small enterprise (MSE) under the Resource-Based View principles. One can understand that the MSE, regardless of their representativeness in social and economic terms, would have less initial conditions of developing markets from the perspective of SCP Model (Structure-Conduct-Performance) must adapt to the external environment and adjust their internal capacities. In this regard, the choice of the Resource-Based View model is highlighted, as the focus of analysis is the company's structure, which is an "arena" of greater control of the entrepreneur. This model follows the structure-conduct-performance sequence. New questions emerge from the goal problem: is there confirmatory evidence in practice strategies in MSE, under the principles of Resource-Based View? If the possibility of MSE using the Resource-Based View of the principles is confirmed, could this strategic practice be used for the various segments of activity? The actual theoretical Standards will seek supporting these reflections for later viewing on conducted research.

2.1. The Universe of Micro and Small Enterprises

According to Penrose (2009) the company is not only an administrative unit, and may be understood as a set of productive resources, and its use is determined by administrative decisions over time. The author indicates that the size of the company is simply a consequence of the growth process and that there is neither a great nor a more advantageous dimension. In this sense, the micro and small enterprises should not be considered or analyzed as thumbnail companies - as some other authors seem to suggest or simply ignore - considering that they possess certain characteristics, organizational structure and capital that can differ them from larger companies (BERNARDES, 2003).

However, it is understood that the MSE are similar in many aspects to medium and large companies, as they also have specific goals, organize the basis of knowledge or skills acquired, intended to commit an economic activity through people performing previously established roles, due to giving importance under various angles.

Globally, it is known that the existing fabric business within countries, not only in the development stage, but also on the economic development path, is predominantly composed of micro and small enterprises (OECD, 2006). This highlights the importance that they evoke, becoming indispensable the existence of mechanisms and policies to encourage its strengthening, as well as studies, technical and management procedures to enabling them to their full economic and organizational development.

On the national reality, Brazilian MSE play an important social and economic role, especially as one of the main vectors in the generation of jobs and income and Gross Domestic Product (GDP) generation. According to Sebrae's data (2013) micro and small companies in Brazil account for more than 6 million formal enterprises, private and non-agricultural country, equivalent to 99.1% of the total, in 2013. Other relevant data is that these companies are responsible for 52% of formal employment and 40% of total wages. All this set is able to move about 20% of the national Gross Domestic Product.

According to the Global Entrepreneurship Monitor survey (GEM, 2013), the number of small businesses that are annually established is strongly stimulated by two fundamental aspects: the need to be an entrepreneur, that many people have for not having better placement options; identified market opportunity, where the person decides to engage even having employment alternative and income. Other relevant information that brings the GEM research is that by each 100 Brazilian entrepreneurs surveyed (10,000 adults interviewed from 5 regions of the country in 2013), 71.3% are motivated by the opportunity and the rest, 28.7%, the need. This framework has shown consistent growth, as in 2002 the total number of entrepreneurs who started a business by identifying an opportunity or market demand was 42%.

In order to dispel doubts and guide the reader, it becomes salutary to the work specifying what is a micro or small business. According to Puga (2000) there are two ways to characterize the size of the companies established in Brazil, for the 1st – the number of employees the company has or 2nd – the annual gross revenues earned. Although there is a specific legislation that indicates levels of financial framework of companies, various entities such as banks and government agencies, are classified as MSE according to its own criteria. Although the aim of the paper is to identify or compare the various existing definitions in Brazil and abroad, taking this suggestion for future studies, some parameters will be presented.

There are three entities in Brazil that classifies the size of the companies according to the criterion of number of employees. These entities are the *Ministério do Trabalho e Emprego(Ministry of Labor), through Relação Anual de Informações Sociais – RAIS; the Instituto Brasileiro de Geografia e Estatística – IBGE (Brazilian Institude of Statistics and Geography); and the Serviço Brasileiro de Apoio às Micro e Pequenas Empresas – Sebrae.* Regarding the definition of revenue by business size, this type of framework is parameterized according to the annual gross revenue of companies, serving both to tax issues, and for the environment with the financial institutions and support to the export agencies. Complementary Law No. 123/2006, also known as General Law of Micro and Small Enterprise, defines micro enterprises as those that receive in each calendar year, gross income equal to or less than R$ 360,000.00. In the case of small businesses gross income it must be greater than R$ 360,000.00 and less than or equal to R$ 3,600,000.00.

To end the session, it is important to consider why some companies grow, exceeding financial limits concerning small businesses and others do not. It is quite common to have entrepreneurs vetting, seeking to assess the intention of undertaking investments or carry out new projects in the coming quarters, and constantly "expand the business" option is indicated by the respondents. However, in certain situations and types of businesses, we note that the entrepreneur has no genuine interest in expanding the company's operations or by issues surrounding market aspects, or personal jurisdiction, or in the light of tax considerations (continuing as small, the company shall be subject to protection of the specific legislation of the MSE).

Penrose (2009) also addresses similar issue, although not specifically about MSE, explaining the reasons for businesses' growth, reaching six generic postulations: little entrepreneurial management; inefficient management; inability to raise capital; being stuck with paradigms; lack of managerial preparation; and bad luck. For the author, the growth of a firm is nothing more than the increase in production of certain products. Other forms identified growth firms are more tied to economic concepts, such as economies of scale, scope economy, transaction costs savings, financial risk reduction savings (unrelated diversification).

However, it is worth emphasizing that this article aims not say that the small company has or not to grow, being the entrepreneur's decision. But if it is decided on company's growth, the entrepreneur must obtain knowledge and skill necessary to run his business, and adopt attitudes that channel breath to the enterprise.

Given this context we can say that the MSE take economic and social relevance, in the macroeconomic field, the same way that they also have marked importance as a business activity, in microeconomic terms. Thus, smaller companies also need to establish their business strategy, develop tactical actions, constituting its competitive advantage over other competitors, regardless their size or which marketing environment they are inserted.

2.2. Strategy

As mentioned earlier, in order to face the intensification of business competition, companies systematically adopt positions that are able to target them towards superior performance, creating value for stakeholders and ensuring sustainable competitive advantage over time. It is evident that firms in search of virtuous cycle seek to create perceived value for all stakeholders. However, for firms that obtain its operational fuel and profit from the market, it places the stakeholder client on its priority. For firms operating in Not Markets, the stakeholder emphasis must be the society, the environment or the culture.

Roughly, two directions of emphasis channel the looks of the strategic leaders in firms. A traditional form of analysis is the systematic reading of the external environment, exogenous elements to firms, the business environment, infrastructure, economic, social, cultural, political, environmental, industry monitoring and competition, market behavior, changes in laws and legal milestones and disruptive technological innovations, which ultimately are resources too, but less firm action domain. The other direction of focus are aspects, endogenous resources to firms with new management techniques and adapting methodologies, technology platforms and information, customer relationship policies, talent management, adoption of good management practices and models of excellence and productivity which are the arsenal of resources for Strategy management and the firm's operation development .

Such resources and procedures to be applied by the managers are considered value-generating nature draws, then or reified, materializes, the content of the Strategy and involve the aspects: processes, resources, goal setting, goals, "the materialization of the Strategy" as "something" "that people do," are actions designed and implemented by people (Whittington, 2006, p. 613). By analyzing the internal or external environments and resources, with this combination, with motivational tone, doses of "good ambition", the leaders build strategy envisioning to get higher (usually) results.

It must be emphasized that the term Strategy is widely used within organizations, whether in all industries and sizes, but often the term is used in a polysemic and too broadly way. This ambiguity disappears when you put the context correctly and market nature which the firm operates. A certain consensus in the mainstream is that Strategy generates noticeable value for stakeholder of main reference in the firm, or that those who produce profit or do not generate serious negative externalities and, in the case of guidance for markets to generate competitive advantage, superior performance and sustainability. It may be added in the definition, which should not produce negative externalities to stakeholders in general, internal, and external: society, environment, culture and politics (AMÂNCIO, Gonçalves and MUNIZ, 2008, p. 72).

What we see, generally, is that many authors, researchers and managers end up using that term inadvertently, mixing the concepts Strategy and Tactics, incorrectly appropriating the role of one and omitting the other. The incorrect use of this observation confirms the polysemy that the term Strategy carries (AMÂNCIO, Gonçalves and Muniz, 2008). The perception is that as the activity related to the Strategy various hierarchical levels, it is considered the high point of the activity of an executive; the term is now used constantly, as if conferring some degree of relevance to the subject being treated (Mintzberg, AHLSTRAND and Lampel, 2000).

Hambrick and Fredrickson have similar interpretation (2001, p. 53), by claiming that "if all that is important is released in the 'basket' of the Strategy, so this concept essentially becomes irrelevant." These authors are positioning themselves against the excesses in the use of the term Strategy, considering that his inappropriate use contributes negatively to trivialize it.

Even with due parsimony in the use of the concept is relevant to define it in order to use it (only) when appropriate or use it when it is unavoidable. Rescuing the origin of the term, Rowe (2002) explains that the name derives from the Greek word strategos, referring to the general in command of an army and relating to psychological and behavioral skills that motivate a general. The term has evolved over the centuries to include management skills, such as management, leadership, public speaking and authority. According to Mintzberg and Quinn (1996), the term strategos also began to denote the willingness to make use of resources to overcome existing or potential enemies, and develop a system of governance. (Marietto, Sanches and MEIRELES, 2011).

All this diversity gains consistency and systematization with Mintzberg, Ahlstrand and when Lampel (2000) stated in the Strategy Safari book, the ten schools of strategic thinking. The author grouped the schools in three ways: the prescriptive nature, more concerned about how they should be made, rather than how they are made; descriptive, whose Focus is on strategy-making process, with less emphasis on prescribing ideal strategic behavior and more Focus on describing how the strategy is in fact made; and integrating nature, having the configuration of school by his representative, seeking to group the various elements of other schools. The purpose of this demonstration involves the systematic alternatives Strategy in the formulation and the contexts in which they are inserted, so as to enable the decision on the Strategy to be adopted by an Organization.

Porter (1996), presenting the concept to competitive environments, mentions that the Strategy is the set of concepts and processes on resources that produces value, competitive advantage. Suggests that one should opt for a strategy positioning that is able to set the nature of the firm and make it known in the competitive environment, as different by Differentiation or Costs. The author argues that operational efficiency is extremely relevant and necessary for the business, but does not translate as the Strategy of the Organization. Considering that in this globalized world the possibility of competitors to copy the market position is more latent, and this imitation by rivals can turn the competitive advantage gained in only a temporary advantage, the company must seek and defend unique and valuable position in the market in which it operates, in order to generate sustainable competitive advantage. Therefore, the company needs to choose which path (s) shall be followed and define which market (s) it will cease to be part of. This trade-off, that emerges from the Organization's activities and contributes to the choice and limitation of other offers of products and services, contributes to the company to focus on Strategy and the uniqueness of its activities.

Porter's analysis (1981), concerning the SCP Model, Structure - Conduct - Performance analysis has Focus on the market in which the companies operate. In this design, companies must adapt to experienced external environment, shaping its internal capabilities in order to meet the demands resulting from the market. In the model of the Resource-Based View, to be better exploited in the course of this work, the analysis Focus is the structure, according to the Structure- Conduct-Performance sequence. In this understanding, the company seeks ways to improve its structure, both its core business as its core competence in order to meet the market in which it operates.

Due to the expansion of the complexity of these actions and the exponential increase in the amount of information generated, organizations need to develop models and create structures that allow them to behave as true learning organizations, systematizing and transmitting and sharing the absorbed knowledge and focusing on their core competencies to exceed its competitors in competitive advantages (PETER Senge, 1990; Hamel and CK Prahalad GARY, 1990).

As a summary definition, the Strategy can be defined by concepts and processes applied to organizations that create value, competitive advantage and superior performance, promoting growth in a sustainable way (Gonçalves, 2014).

What happens is that for an Organization to maintain its position and overcome their rivals, it becomes a sine qua non condition to provide more value to its customers, or at least create value to its products and services which are comparable to the other, but under lower costs . Similar reasoning indicates Barney (1991), by asserting that organizations need to identify positioning that is unique and sustainable, drawing on the resources already possessed or those that may be acquired. The following section will address in detail the author's ideas.

2.3. The Resource-Based View

As mentioned in the introduction, restlessness within the literature on Strategy focuses on the question: why can certain organizations develop competitive advantages over other rivals, which are sustainable over time, being more successful compared to other competitors?

This concern has generated a number of more specific studies, as guide Oliveira Gonçalves and Paula (2013), and in studies of Strategy there are several theories that attempt to explain why , highlighting the Organization Industrial, Market Processes, Dynamic capabilities and the Resource Based View.

With regard to the first two theories, both are influenced by economic thinking, where both the structure and the Strategy assume the dependence on external market factors and the industry in which they operate. Although of great relevance to the Strategy field of study and having major authors such as Schumpeter (1949 and Porter (1996), both do not emphasize more endogenous aspects of organizations, analyzing the phenomena of competitive advantage and superior performance.

Specifically on the Resource Based View, the authors Barney and Hesterly (2007) indicate that the competitive advantage gained by an Organization can be explained by the features control and different capacities that can be used to create and implement strategy. Being able to own the company resources and skills linked to the business that are valuable, rare, inimitable and organizable, and especially orchestrate them together and competently, this fact helps to explain why a company outperforms others. In Barney's vision and Hesterly (2007) and Hitt, Ireland and Hoskisson (2008) the differences in the performance of businesses over time are mainly due to their resources and capabilities and not to the sector's Characteristics.

It is noteworthy that studies on the Resource Based View began in mid-1980, with Wernerfelt (1984) first, and was followed by Barney (1991) and Barney and Hesterly (2007) who became the mainstream hubs of RBV adoption in Strategy and are also the precursors to postulating about this approach. Birger Wernerfelt was the first to receive the influence of Penrose's ideas (2009) regarding RBV, as the author understood that companies should be understood as a set of productive resources, and that different companies, have different sets of these resources. For the author, the resources themselves are not the inputs in the production process, but the services they can provide (Penrose, 2009).

According to Wernerfelt (1984) the company's resources consist of tangible and intangible assets and it is directly related to their strengths and weaknesses. In line with Wernerfelt (1984), the authors Barney and Hesterly (2007) also claim that the tangible assets - understood as those which can be identified objectively and are easier to evaluate (Collins, 1994) and intangible - those whose identification and measurement are more difficult, such as brand, culture, technological knowledge, learning and accumulated knowledge (Burlamaqui and PROENÇA, 2003) are resources that the company controls and the capabilities, defined by a subset of enterprise resources, that allows using and exploring other controlled resources and can be used to design and structure Strategy.

With full detail of understanding, Barney (1991), quoting Daft (1983) explains that the company's resources consist of all assets and capabilities, skills, processes and organizational attributes, information and knowledge that are available and controlled by the Organization, as well as allowing them to be used in order to trace strategy more adherent to the business, creating value above the market average over a period of time.

As described Massukado and Teixeira (2008) there are plenty of concepts that address the meaning of organizational resource within the literature, pointing out that Barney (1991) proposes the Organization of resources and capabilities in four dimensions, namely: financial, physical, human capital and institutional or organizational.

Moving forward in this understanding, so that organizations can obtain competitive advantages in the market or industry in which they operate in a sustainable manner, one should take into account two basic aspects: the heterogeneity of resources between organizations and immobility of resources (Barney and Hesterly, 2007). In line with these authors, the heterogeneity of resources indicates that, for certain classes of activity, some companies may be more relevant than others to carry out their operations. As for the immobility of resources, if a company has valuable resources and capacities and that few other companies have, competitors may consider very expensive copying them, giving the company that already has such resources and expertise, competitive advantage that is sustainable and not just temporary.

Another observation from Barney (1991) is that no firm in the same sector may have the same competitive advantage as the resources are idiosyncratic. He refutes the idea that superior performance is inherent to any firm, as not all have lasting strategy. Similarly, Barney (1991) directs that among the existing resources and capabilities in organizations, only a few are able to give some sort of competitive advantage. On this route, so that a particular feature or ability can be considered as a source of competitive advantage, they must meet four criteria or conditions specified in the model proposed by Barney called VRIN where there resources should be: valuable, rare, inimitable and non-substitutable. It turns out that in 2007, Barney pondered again about the Resource-Based View, proposing changes that would raise the status of a new theory, entitled Resource Based Theory. With this approach, the author goes on to consider the "N-S" (Non-Substitutable) from the VRIN model within the Imitability criteria and incorporated the Organization criteria to the new model, giving this attribute a more significant strategic weight for being able to relate an attribute to the other. This new model started being called VRIO. For didactic purposes a table with the main characterizations of the four attributes of the models will be presented, showing the evolution between models.

Table 1. Transition between VRIN and VRIO models

Attribute / Model	*VRIN (1991)*	*VRIO (2007)*
Valuable	**Characteristics:** Resources are considered Valuable when they enable a company to adopt Strategy to improve their efficiency and effectiveness.	**Characteristics:** Approach the features and capabilities of a company, allowing it to explore opportunities or neutralize external threats.
	Focus: Strategy arising from the valuable resource.	**Focus:** It is in the resources themselves and in their ability to allow the effects to be exploited or neutralized.
Rare	**Characteristics:** By definition, it consists of a valuable resource controlled by an organization that is not owned by a large number of competitors.	**Characteristics:** If a feature or ability is controlled by many competitors, it is unlikely to be source of competitive advantage. Valuable resources and capabilities, yet common, are parity sources and not competitive advantage.
	Focus: There is no conceptual or Focus differences between the two definitions	
Imitability	**Characteristics:** A valuable and rare resource can often be a sustainable competitive advantage generator only if the companies that do not have it, cannot obtain it.	**Characteristics:** Rare and valuable resources can only be sources of sustainable competitive advantage if the companies that do not have it, find a cost disadvantage in obtaining or developing them.
	Fatores para esta condição: 1. Unique historical condition 2. The company does not know exactly which resource to copy from the competitor 3. Social Complexity	**Differentiation:** It can be seen a bit more of the author's flexibility regarding imitability. However, he makes it clear that there may be financial barriers to the acquisition or copy.
Non-Substitutable	**Characteristics:** It is about resources that can be considered equivalent. Although different from each other, it enable the deployment of the same capacity or Strategy	**Characteristics:** The Substitutability feature is revealed in this new concept and inserted into Imitability.
	Can occur in two ways: 1. As the same resources of another firm cannot be copied, they are replaced by similar feature 2. Different resources can be strategically replaced	**Focus:** This premise is changed by Organization.
Organization	…	**Characteristics:** They are policies and procedures of the Organization, structured to support other resources. Even with other resources, the firm must be properly organized and exploit the potential for competitive advantage generation of these resources and skills.

Fonte: Adapted from Barney (1991, 2007). Data systematized by authors.

As it can be seen in Table 1, the key to the on Resources Based Theory is precisely the Organization attribute in order to being the link between the other features and capabilities of the firm, confirming the view that this attribute has more significant strategic weight than others. By having more intangible Characteristics, this attribute is more differentiated than the other theory, should fulfill the role of connecting them harmonically and concretize a Strategy of the company. According to Oliveira Gonçalves and Paula (2013), this new model, VRIO creates closer ties between theory and practice, as it gives managers a more objective assessment of its resources.

3. RESEARCH'S METHODOLOGY

According to Yin (2001) the scientific method has great representation within the academic research, being the vehicle accepted by the community that militates in the area, to legitimize knowledge acquired empirically; in addition to allowing other researchers to repeat the research and get the same result, as long as in the same circumstances - ceteris paribus. It is known that in the absence of a method of research, which would include a set of specific steps and clearly determined to obtain knowledge, hardly the results would be accepted by the community, reducing its possibility to be validated (Yin, 2001).

In this sense and to this work's execution, research of Qualitative nature were carried out in order to find answers to the central question presented and suggest possible ways and new studies. To the beginning of the work, a broad pertinent literature review process was carried out, document analysis of recent research, secondary data and qualitative field research. The experience of the authors also contributed in the conduct of research and subsequent analysis of information. The choice of qualitative approach supports in Gil (1999), when the author mentions that qualitative research allows for a better understanding of related meanings and human perceptions, obtained from the natural environment and barely noticeable in statistic techniques and quantitative methods .

The technique used was the Multiple Case Study, which according to Yin (2001) is a research strategy that allows focus on the understanding of these dynamics in real sets, aiming to clarify a decision or set of decisions. The case study is a way of doing empirical social research, which investigates a particular phenomenon within its context. For the cases were as close as possible to a practical experience, key SME managers belonging to the sectors of: industry, trade, services and agribusiness were interviewed. Four key questions were applied, as proposed by Barney (2007, p.70), as follows:

· *Value: Do the resources and organizational capabilities offer conditions to seize the opportunities and respond to existing external threats?*

· *Rarity: Is this feature controlled by a small number of direct competitors?*

· *Imitability: Do the organizations without the resources and capacities have disadvantages in obtaining or developing them?*

· *Organization: Are the Company's policies and procedures organized to enable the use of resources that are valuable, rare and of imperfectly imitability?*

The narratives presented in the interviews were analyzed for information and adhesion points identification between the practices of leaders and the RBV theory of Barney (2007), the VRIO Model, proposed by Gonçalves, Coelho and Souza (2011).

4. ANALYSIS DEVELOPMENT: RBV THEORY APPLIED TO CASES OF MULTIPLE MSE

In order to respond to the Resources Based Theory, the strategic approach in micro and small companies could be employed; this study took into account the theoretical framework analysis by proposing the VRIO Model in four case studies in MSE sectors previously cited.

As background to this view, we took into account the principle that the strategy should be handcrafted, built individually to each type of project and not put in a general way to the various types of business, thereby confirming for erroneous oversimplification.

Thus, it was considered by applying the Resource Based Theory on the case study perspective, precisely because of the possibility of such generated frameworks being easily transmuted to other types of companies, not as finalized situations, but as proposals for cases that manage to be indicative reflected in other similar companies.

It is expected that these models might generate more reflections than assertions, contributing to a better understanding of the application within the theory proposed by Barney, in the same way, to inspire researchers on the micro and small businesses topic elucidate their strategies.

4.1. Case 1: Services

For the Services division the analysis of a small dental clinic was proposed, which performs certain procedures related to health and oral hygiene for private and insured patients. From the entrepreneur's interview, it was possible to identify the following aspects.

Table 2. VRIO Model Application in a Service Company

Characterization	Business Sector	Services
	Company Nature	Dental Clinic
	Objective	Promote health and oral hygiene
	Size	Small Business
	Target Audience	Private and Insured patients – A and B Class
	Location	Belo Horizonte – Central-South Region
	Duration of the firm	2007 – 7,5 years
Resources	Tangible	Structured Clinic
	Intangible	Team's Technical Competence - Dentists and Managers
VRIO Model	**V**alue	Services Provision considered to be excellent; Credibility with the customer; Modern and high-precision equipment.
	Rarity	Professionals with high national reputation; Easy access Location with parking lot.
	Imitability (Hard)	Relationships Network with business groups.
	Organization	Patient Relationship Management ; Distinguished service

Source: Adapted from Barney (2007) and Gonçalves, Coelho and Souza (2011). Data systematized by authors.

By the testimony of the leader, her identification with the business can be noticed, due to the fact that she possesses training and expertise in Dental Prosthesis Implanting. Although already possessing experience in the area of operation, only in 2007 the ruling could enable the necessary resources and appropriate partnership to start the activities. According to his statement, "its focus was concentrated on the quality of care and relationships with business groups, dental associations and partnerships."

The VRIO model applied to the case of a dental clinic denotes right balance between the attributes, where each of the features and capabilities has implications in the other. By reports of the leadership, "if the clinic does not have professionals who have recognized expertise, it can hardly meet the public of classes A and B, it cannot provide the credibility you want and it might compromise the results and the survival of the company". The need is reinforced by the management attribute [Organization], for "patient relationship management will be responsible for conducting this whole dynamic." The firm's profit comes, according to the manager, "from the time of selective acquisition of resources, through the inspection, quality control, storage and application. “According to the testimony of the leadership," the firm's performance has been positive since the founding of the firm, having reached the payback in about 24 months. "According to her perception, this fact reflects the increase and maintenance of clients served, outcome from the quality of services provided and the relationship with network management with business groups it possesses.

4.2. Case 2: Agribusiness

Regarding the Agribusiness sector of activity, the revised proposal was a company engaged in the creation and marketing of fingerlings, notably tilapia, small and medium supermarkets in the area, close to where the farms are installed. The testimony of the respondent entrepreneur made the composition of the table possible.

Table 3. VRIO Model Application in an Agribusiness Company

Characterization	Business Sector	Agribusiness
	Company Nature	Pisciculture
	Objective	Raise and Market fish - filleted tilapia
	Size	Small Business
	Target Audience	Supermarkets, bars, restaurants and fishing ponds in the region
	Location	Diamantina/MG - Rural Zone
	Duration of the firm	2005 - 9 years
Resources	Tangible	Property that has running water mines, streams with good water flow, favorable topography to the construction of tanks, reservoirs for fish farming.
	Untangible	Technical knowledge of the owner and employees on the management of the entire process of raising tilapia; creating arrays, fingerlings, fattening healthy tilapia.
VRIO Model	**V**alue	Rural property, with abundant water resources, natural water resources and few treatment requirements to develop fish farming; climatic diversity and adequate territorial extension to the fingerlings and larger fish management.
	Rarity	Water quality (adequate oxygenation); Balanced diet; specialized engaged workforce.
	Imitability (Hard)	Owner's Expertise on managing fingerlings and fish; Relationship with supermarkets network, bars and restaurants in the area.
	Organization	Planning and management of the stages of creation, fattening and slaughter of fish; Efficient distribution of production to final customers.

Source: Adapted from Barney (2007) and Gonçalves, Coelho and Souza (2011). Data systematized by authors.

By the interview of the leader it can be seen that the creation of the business combined the owner's dilettantism, because it is not his main source of income, with the possibility of generating additional value to his farm, "combining business with pleasure".

The VRIO model applied to the case of the production and marketing of fish (tilapia fillets) indicates two key resources, citing them, the "[i] his property is equipped with tanks for the selection of good matrices, fingerling production, creation, fattening and slaughter of fish and [2] the technical knowledge of staff is present to manage all stages of the process and the distribution with the network of client companies. Resources knowledge of the production process in dealing with live animals, and fish fingerlings in growing and fattening and the property in proper aquifer (with watery requiring low rate of treatment) are rare and valuable resources not only isolated point of view, but synergic. Additionally, leader's knowledge on the white meat fish consumption niche enhances the business model in the commercial phase. Each of these resources reinforce synergistically when combined to each other, strongly complementary, allowing internal leverage with external results. It is clear, therefore, that the Organization attribute is replaced by significant relevance in the coordination of actions on resources.

By owner's testimony, "the firm's performance has been sufficient to cover the costs and generate revenue, the way the company is organized." Despite the activity not being complex (in his understanding), it is, as cited "very dependent on labor-intensive and skilled labor, due to the constant management required, especially with fingerlings." Despite the farm having good quantity and quality of water and skilled labor, if these items cease to coexist, the firm's performance may suffer with low performance.

In the statements of the leader it can be noticed the full field of resource management and so the *Organization* desire is manifested, capable of generating sustainable competitive advantage.

4.3. Case 3: Industry and Trade

Commerce for the Industry and Trade division the analysis proposed was a small company that manufactures and sells clothing aimed at the adult female audience, class B, C and D. This case is based on a company in the fashion design segment, production of parts and molds, exposure of the models produced in the store, distribution of clothing boutiques and other shops in the market, and to door-to-door saleswoman who resell the products on consignment. From the entrepreneur's report Table 4 was inferred.

Table 4. VRIO Model Application in a Company of Industry and Trade

Characterization	Business Sector	Industry and Trade
	Company Nature	Clothing and clothing Retail Trade
	Objective	Production and marketing in women's clothing retail
	Size	Small Business
	Target Audience	Final Consumer (adult women, classes B, C and D); Points of sale in boutiques and clothing stores; adoption of door-to-door for home sales
	Location	Belo Horizonte – West Region
	Duration of the firm	2006 – 8,5 years
Resources	Tangible	Intrinsic quality of products
	Untangible	Known brand name in the local market and management partners' accumulated knowledge.
VRIO Model	**V**alue	Products segments (age, size, season, prices) maintaining the intrinsic quality with affordable prices (within the market's average)
	Rarity	Employees trained in their respective areas. Sales Team (door-to-door) with low turnover.
	Imitability (Hard)	Known brand name and management partners accumulated knowledge
	Organization	Planning and management of market knowledge of the fashion market ; Relationship management with suppliers and customers

Source: Adapted from Barney (2007) and Gonçalves, Coelho and Souza (2011). Data systematized by authors.

By the managing-partner's testimony it can be identified that the creation of the firm was due to the desire of becoming an entrepreneur. The owner reported that after joining a voluntary retirement program from the company that he used to work, financial resources to start the firm were raised.

The company has the objective to produce and sell women's clothing at retail. When analyzing the VRIO model, the existence of tangible assets can be seen – intrinsic quality of products and intangible assets – brand and managerial knowledge. According to the head of a firm, "as the value attribute is aimed at building a company that seeks to offer products with intrinsic, yet affordable, quality. The company owns Brand recognition (hard imitability), the Organization attribute needs enlist effectively such resources. "It should be added, "Making sure this whole dynamic of the use of resources will be set, giving consistency to the plotted strategic". Yet, according to the leader, "the firm's performance has fluctuated over the past five years, but continues to show profitability consistently." A branch of the firm was opened four years ago, thanks to higher learning about the business and management of resources. He claims that decided to close it in order to devote more to the head office that demanded a lot of attention (in the factor care and management of resources). According to the managing-partner this decision was correct and the business generated profit in the last year.

4.4. Case 4: Trading

The proposed analysis for the trade activity focuses on a micro retailer, for the supply of food and non-alcoholic drinks - coffee shop - a mixed audience, but with concentration in classes A, B and C, given its geographical location, characteristics of location, quality of care and category and price of products served. The entrepreneur interviewed pointed out the following specified in Table 5.

Table 5. VRIO Model Application in a Trading Company

Characterization	Business Sector	Retail Business
	Company Nature	Coffee Shop
	Objective	Market food and Non-alcoholic beverages
	Size	Micro-Enterprise
	Target Audience	Final Consumer – Classes A, B e C
	Location	Belo Horizonte – South-Central Region
	Duration of the firm	2012 – 3 years
Resources	Tangible	Furniture and sophisticated equipment
	Untangible	Nice atmosphere, quality products and personalized service
VRIO Model	**V**alue	Coffee shop established in a prime area of the city; Furniture and equipment composing the structure of the place; loyalty card.
	Rarity	The excellent place of operation. Providing barista courses and coffee tastings to customers considered loyal to the company.
	Imitability (Hard)	Quality of care; Category of products served; Existing culture in the company and its relationship with customers
	Organization	Planning and management of activities, focusing on control of product quality and excellence service to suppliers and customers.

Source: Adapted from Barney (2007) and Gonçalves, Coelho and Souza (2011). Data systematized by authors.

The VRIO model applied to the case of a coffee shop demonstrates the need to have a proper place for the business' performance, in line with the public profile to be met, as well as more intangible aspects, to meet the customers' perception of what is good and also has an outstanding quality. The Organization attributes, if performed attentively to resources and reliable the business model is possible to attract customers and develop markets for more lasting competitive advantage. In his statement, the entrepreneur points out the attention to essential resources, those focused on the business model, "it is fundamental to ensure the existence of the business to the working area." As the product coffee is considered "well understood" by clients, the quality of care becomes a distinguishing feature. The explanation of blends by the employees becomes essential to secure customers, create more lasting relationships and positive word of mouth. Mentions believing, "that the best management of resources allows profitable business expansion."

In his statement the leader indicated that the firm's performance also has fluctuated, in view of the fact that it is still a business under structuring. He also mentions that during the World Cup event in Brazil "net revenue was higher, substantial, and also contributed to improving the position of the company brand."

5. FINAL CONSIDERATIONS

Based on the analysis and interviews with leaders it can be noted the concern, remarkable attention they give to the essential resources that are directly involved. Argue that outsourcing management cannot even be thought of, and if so, only to experts who understand better and have more skills than them. There is unanimity in the statements of the leaders of that if "providing effective attention to the resources and skills" they gain greater financial performance, develop markets, better mark in the minds of customers, and may even grow in size and profits.

Thus, we can see an adherence and emphasis on strategy procedures practiced by firms with support in Resource-Based Theory proposed by (Barney, 1991; SEBRAE, 2013; Rowe, 2003; Gonçalves, CA; RABBIT, MF; SOUZA, 2011). The Resource-Based Theory, part of the fundamental assumption that the performance of a company can be explained by the way its resources and capabilities are used and managed. For a company to have sustainable competitive advantage and stand out against the other competitors, their resources and capabilities need to be considered *Valuable, Rare, Inimitable and Organized.*

In this context, considering the practical nature that the amplified RBV provides in allowing a more direct and objective assessment of each of the four natures of resources identified by the VRIO Model and taking into account the relevance of micro and small enterprises within the national economy, both from the perspective of generating employment and income, and for the construction of the country's GDP, it was considered appropriate by analyzing how the RBS could be used as a strategic approach to SME.

In the cases' analysis, it was possible to see that the Organization attribute as an effective resources management, in fact, it has an outstanding relevance among the other features of the Model VRI + O (The "O" as a separate element of VRI, as the active agent which operates on the set), which reinforces and further legitimizes the evolution of the Resource Based View to a Theory Based on Resources. In general, as the Organization attribute, given the intrinsic feature of this element, established itself as the most difficult measurement within the company, regardless of size. It is therefore recommended to the largest manager attention to composition due to its great importance for the construction and implementation of the strategy to create value.

Also, it is worth emphasizing that the Organization attribute is moored in the VRI, essential resources to generate lasting, sustainable competitive advantage over a longer time, which implies difficulty in overcoming the competition.

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CORPORATE SUSTAINABILITY AND CUSTOMER LOYALTY: THE CASE OF THE RAILWAY INDUSTRY

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Abstract

Introduction of the mass rapid transit railway system through the Gautrain has not only addressed the transport issue in South Africa but has also motivated and promoted the country's economic growth by creating employment. Despite the increase in research focusing on the importance of the Gautrain to the South African economy, the influence of perceived convenience, image and safety on commuter satisfaction and loyalty in the South African mass rapid transit railway system context is still limited. This paper used a data collected from 206 Gautrain commuters in the Gauteng province of South Africa to examine the interplay between perceived convenience, image, safety, commuter satisfaction and loyalty. Smart PLS software technique was used to statistically analyse the measurement and structural models. The results revealed that perceived convenience, image and safety positively influenced commuter satisfaction, which, in turn, influenced commuter loyalty. These results may be used by marketers in mass public railway systems to initiate strategies intended to increase both commuter satisfaction and loyalty.

Keywords: Perceived Convenience, Perceived Image, Perceived Safety, Commuter Satisfaction, Commuter Loyalty, Corporate Sustainability

1. INTRODUCTION

Countries such as China, Italy, France and United Stated of America make use of mass rapid transit railway systems in order to transport vast numbers of people within short periods of time. A mass rapid transit railway system is an urban transport system which uses special rails to run continuous high capacity trains (Fraszczyk, Da Silva, Gwóźdź & Vasileva, 2014). Following the steps of these developed countries, South Africa developed the Gautrain, which is a metro train that operates in Gauteng's province, which is the economic hub of the country. As mentioned by Garaba (2016), the introduction of the Gautrain has not only addressed various commuter transportation challenges, but it has also motivated and promoted South Africa's economic growth by creating employment. Gautrain metro is the first and only metro train in South Africa, using 10 stations to link three metropolitan areas which are Johannesburg, Pretoria and East Rand (Musakwa, 2014). The aim of the Gautrain metro is to provide passengers with safety, punctuality (fast), reliability, comfort and efficient transport (Jensen, 2010). Moreover, besides boosting the economy of the country, it enables commuters who depend on private and public transport to spend less since Gautrain is priced cheaper than car travel and so can outperform the cost of driving (Slabbert, 2015). This ability to offset the costs associated with driving stem from the view that Gautrain is a fast train that typically achieves operational speeds ranging between 160 km to 180 km per hour (Jensen, 2010).

There are several relevant issues that are associated with public transport characteristics that offer more advantage to Gautrain. According to King and Ssamula (2008), these characteristics include convenience, image, safety, availability, comfort, reliability, satisfaction and loyalty. The Gautrain addresses almost these characteristics in the sense that the metro train considers the needs of the passengers and intends to meet them (Walters, 2014). As such, when these factors are combined together, Gautrain metro is likely to be a successful venture and it would be a focus for influencing more commuters in the long run (Department of Transport, 2012). In addition, it is through these characteristics that commuters have been attracted to use Gautrain more often than not. Arising from the aforementioned, the primary objective of this paper is to examine the causal relationships that may exist between perceived convenience, perceived image, perceived climate safety, commuter satisfaction and commuter loyalty in the Gautrain public transportation service in South Africa. To achieve this primary objective, four secondary objectives were formulated; namely, (1) to determine the influence of Gautrain convenience on commuter satisfaction; (2) to establish the influence of Gautrain image on commuter satisfaction; (3) to determine the influence of Gautrain safety on commuter satisfaction; and (4) to establish the influence of commuter satisfaction on commuter loyalty.

This paper is structured as follows: First, a problem statement is presented, followed by a literature review on the constructs under investigation. Hypotheses stating the proposed relationships are then formulated, based on the review of literature. Thereafter, the research methodology, the data analysis, research results and discussions will be outlined. The final sections of the paper comprise of limitations and implications for further research, conclusions and managerial implications.

1.1. Corporate sustainability and its importance for the Gautrain transport system in South Africa

Corporate sustainability may be perceived as an approach to business that generates long-term shareholder wealth through embracing opportunities as well as managing risks in the triple bottom line (Avey, 2015). The triple bottom line involves three dimensions which are environmental stewardship, economic development, and social equity (Zietsman, Ramani, Liban & Van der Merwe, 2013:15). Generally, companies aim to maximise the social, environmental and economic benefits of their operations in order to reduce the potential negative impact of such operations (Wong 2014). In the context of the Gautrain, corporate sustainability is linked to the company's desire to contribute to a better quality of life for the population of South Africa (Gautrain, 2015). The growing importance of corporate sustainability has allowed Gautrain to contribute positively to the country's economy by generating several employment opportunities, with local communities and developing various kinds of small businesses (Fombad, 2015). For instance, results had shown that by 2015, the Gautrain had created almost 34,800 direct job opportunities during construction and an estimated 922 sustainable jobs after the start of operations (Gautrain, 2015). It is further estimated that close to R46 billion total GDP impact had been added to the South African economy due to property developments induced by the Gautrain, contributing a further 245, 000 jobs (Gautrain, 2015). In addition, the Gautrain is a green form of public transport which is electrically powered, thereby contributing to the reduction of air pollution (Bohlweki 2002). Also, due to its current capacity to transport more than 1.3 million passengers each month, the Gautrain has been able to reduce private motor vehicle usage on the roads (Gauteng, 2014). Therefore, there is evidence of corporate sustainability at work in the operations of the Gautrain.

1.2. Problem Statement

Customer satisfaction is typically expected to be positively and directly related to customer loyalty, and the link between commuter satisfaction and customer loyalty is perceived to be so manifest that the relationship often is taken for granted (Helgesen, 2006). This relationship cannot be achieved without other factors or antecedents such as perceived convenience (Salini & Kenett, 2009), percieved image (Helgesen, 2006) and perceived safety climate (Gil-Saura & Ruiz-Molina, 2009). This paper reinforces that convenience, image and climate safety are related to satisfaction which leads to commuter loyalty. Despite the view that the association between customer satisfaction and customer loyalty has increased in popularity over the years, very few studies have separately investigated this fundamental relationship taking cognisance of the role performed by latent constructs such as perceived convenience, perceived image (Jain, Aggarwal, Kumar, Singhal & Sharma, 2014), and perceived safety climate (Lee & Dalal, 2014) in relation with commuter satisfaction (Githui, Okamura & Nakamura, 2010) and commuter loyalty. Furthermore, there is a paucity of studies that have focused on these constructs within the public transportation sector in South Africa. In this paper, the focus is on Gautrain public service with respect to the links between perceived convenience of the Gautrain, perceived image of the Gautrain, perceived safety climate of the Gautrain, commuter satisfaction and commuter loyalty. Since the Gautrain project is a fairly new phenomenon that is still ongoing in South Africa, this existent research gap has to be manipulated in order to gain clarity on the antecedents of commuter loyalty in this industry. This information could then be used to develop initiatives to stimulate enhanced use of the Gautrain as a public transport utility.

2. LITERATURE REVIEW

2.1. Perceived Convenience

According to Wardman (2014) the term convenience is related to the lack of effort in using transport services and this is with specific regards to the manner in which the services are run. This implies that perceived convenience embraces comfort, service frequency and reliability, travelling time and facilities for protecting commuters from weather variants as they wait for the metro train (King & Ssamula, 2008). Perceived convenience provides multiple advantages such as the usage of a card system for travelling instead of using cash, which enables passengers to avoid purchasing several different tickets (Anderson, Condry, Findlay, Brage-Ardao & Li, 2013). Additionally, convenience is important in mass rapid transit railway systems because it enables the metro train to be more useful and appropriate in that it will be available at the right location in the time to transport passengers (Anderson *et al,* 2013). Thus, perceived convenience may also be considered as a picture of the environment or station facilities, accessibility as well as the interchange between trains and the frequency of service (Crockett & Hounsell, 2005)

2.2. Perceived Image

In this paper, the definition of perceived image is related to public transportation. Perceived image is considered to be associated with the provision of helpful staff, well designed and comfortable vehicles, quality of the trip, waiting areas such as stations which are clean to the commuters (King & Ssamula, 2008). It has been noted by (Paul, 2012) that people have different points of view regarding rail service. However, in South Africa, the Johannesburg Inner City Traffic and Transportation Study (2010) revealed that most commuters found perceived that the Gautrain was more peaceful and secure than driving their own cars. Commuters further expressed that they felt that the Gautrain is comfortable and faster, such that commuters experienced less delays, lateness, and frustrations stemming from motorists traffic congestion. More recently, a study conducted by Musakwa (2014) reveals that the Gautrain has positively changed the view of public transportation systems and even restored the dignity of the rail transport among commuters in South Africa. The same study observed that behaviours were beginning to change because people were starting to switch from driving their own cars to using the Gautrain. Furthermore, commuters wanted to be associated with the Gautrain because the parking bays still had available space even during the peak hours. Through these observations the public image of the Gautrain was, at most were classified as being positive.

2.3. Perceived Safety Climate

According to Neal and Griffin (2006) safety climate is defined as individual perceptions of the practices, procedures, priority over schedules associated to safety. In other words, safety climate helps organisations such as Gautrain to improve the company's safety and health performance by reducing injuries at the workplace. Safety climate is important for Gautrain as well as any other organisations because it enables the organisations to prioritise on passenger safety while also concentrating on other areas of operations (Zohar, 2011). For the Gautrain to be successful, it is imperative for the staff and management to understand the importance of safety climate. In fact, with safety climate a number of issues have to be prioritised, and these include the implementation of safety policies and a commitment to safety (Rodrigues, Arezes & Leão, 2015). In these policies, the rules and norms of safety should be well and clearly established based on the Gautrain's need of safety. For example, it is natural that the Gautrain has to provide commuters with a well elaborated system of security in order to prevent and avoid any kind of risks. Thus, safety climate is closely related to operations, and is characterised by the day-to-day perceptions concerning organisational policies, management, the working atmosphere and working practices.

2.4. Commuter Satisfaction

Klein (2014) defines commuter satisfaction as a customer self-reported evaluation of how happy the customers (in this case, the commuters) are regarding the service that they received from the company or the product that they have purchased. Anderson, Fornell and Lehmann (2012) claim that satisfaction should be viewed as a judgment based on cumulative experience with a particular product or service rather than a transaction specific encounter. Commuter satisfaction has to be one of the first priorities of any public transport company as well as any organisations (Bag & Sen, 2012). Satisfaction is largely influenced by the value of services provided to commuters (Titko & Lace, 2010). In the case of public transportation, these satisfaction is widely regarded to be an outcome of convenience or accessibility and availability that commuters enjoy (Pont & McQuiken, 2005). Since satisfaction reveals the positive feeling of the commuter, it is very important for a service provider to fully understand the feelings of the commuter regarding the services that they provide (Denga, Lua, Weib & Zhanga, 2010). For this reason, it is imperative for Gautrain's staff and management to strive to meet the expectations of their commuters.

2.5. Commuter Loyalty

Flint, Blocke and Boutin (2011) define commuter loyalty as a buyer's deeply held commitment to stick with a product, service, brand or organisation consistently in the future, despite new situations or competitive overtures to induce switching. When customers are loyal to a product or a service, they are more committed to repeat buying because they are more willing to re-patronise or re-purchase the service or the product in the coming day (Walsh, Evanschitzky & Wunderlich, 2008). In other words, the attitude of a loyal commuter is to repeat transactions of a particular product or service, which is offered during a specific period of time. Ladhari, Ladhari and Morales (2011) further add that loyalty is the foundation of continuous purchasing of a product or service. In this case, for a commuter to repurchase or rebuy a product or service (become loyal) it is necessary for him/her to be satisfied with it. In this loyalty becomes the final step that the commuter will achieve once he or she is satisfied with the product or the service provided by the organisations (Martínez & Del Bosque, 2013).

3. CONCEPTUALISED FRAMEWORK AND HYPOTHESES FORMULATION

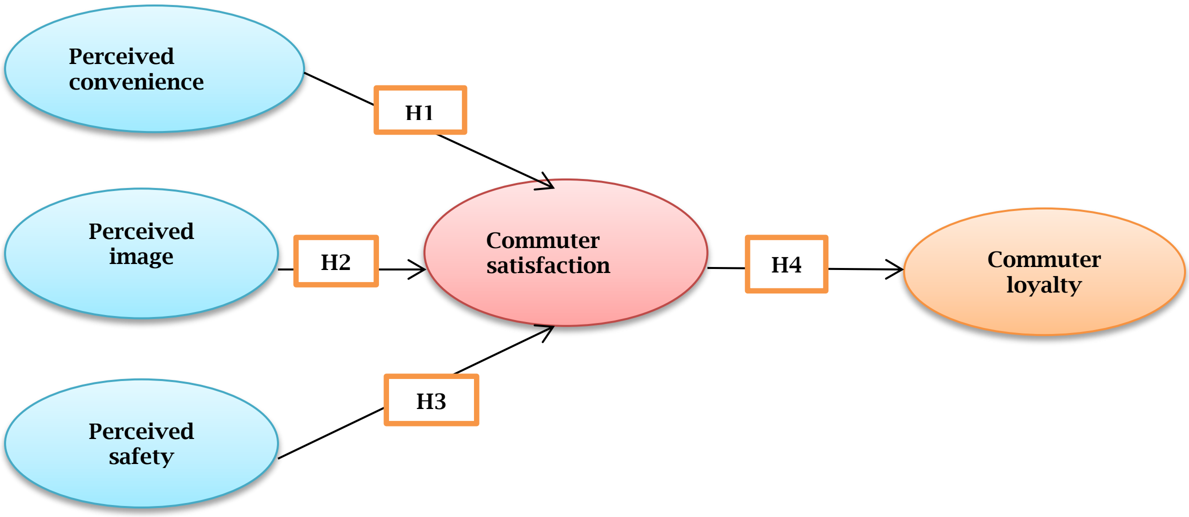
Based on the literature review, the framework illustrated in Figure 1 was conceptualised. In this framework, perceived convenience, perceived image, perceived safety are the predictors, whilst commuter satisfaction is the mediator and commuter loyalty is the outcome variable. Figure below, illustrates the framework. Hypothesised relationships between research constructs are developed thereafter.

3.1. Perceived convenience and commuter satisfaction

Commuters are satisfied with some attributes which are offered by transportation companies and these include the card system for travelling, vehicle physical conditions, safety and security as well as convenience in travelling and schedule information (Javid, Okamura Nakamura &Wang, 2013). Commuter satisfaction is related to comfort, aesthetics and eye catching of service quality (Javid *et al. ibid*). Commuter satisfaction with metro trains can be expressed in different ways and is in fact based on their own experience. It is the result of a commuter's feelings since the metro train is a typical example in terms of offering a comfortable, reliable and safe mode of public transport (Jain, Aggarwal, Kumar, Singhal & Sharma, 2014). Therefore, most commuters feel that metro trains are more reliable and comfortable due to their frequency and adherence to schedules. Accordingly, this study hypothesises that:

H1*: Perceived convenience of the Gautrain has a positive influence on commuter satisfaction.*

Figure 1. Conceptual Framework



3.2. Perceived image and commuter satisfaction

Commuter image is linked to commuter satisfaction, since both concepts have to deal with what commuters see and experience, which is related to the service or product offering by any organisation (Randheer, 2011). With regards to metro train services, commuter satisfaction depends on their images on travelling aspects such accessibility, convenience, comfort, reliability and safety (Ngatia, Fumihiko & Toshiyuki, 2010). Commuter satisfaction is linked to the image or perception by commuters. Due to that, commuter image on metro trains might be determined by the accessibility and availability of the metro trains most of the time and on public holidays in the evening, as well as the comfort of service with the objective of influencing commuter satisfaction (Govender 2014:323). If these areas are unsatisfactory, commuters will not have a positive image of a metro train service such as the Gautrain, leading to dissatisfaction. Therefore, the following hypothesis is put forward:
H2: *Perceived image of the Gautrain has a positive influence on commuter satisfaction.*

3.3. Perceived safety climate and commuter satisfaction

Safety climate has a positive influence on customer satisfaction due to its effect of reducing workplace accidents with the objective of offering payoffs in relation with customer experience (Yule, 2003). To this degree, employees are normally trained to interact with customers in order to explore how the safety climate may impact on customer satisfaction (Willis, Brown & Prussia, 2012). Paul (2012) states that without a satisfactory safety climate, the action of employees may impact negatively on the safety of commuters, thereby causing dissatisfaction. Based on that notion, safety climate is taken as a predictor of commuter satisfaction (Willis *et al.,* 2012). It is important then for transport companies to consider and apply safety measures as this may produce other benefits associated with the ability of the labour force to influence commuter satisfaction. Accordingly, this study hypothesises that:
H3: *Perceived safety climate of the Gautrain has a positive influence on commuter satisfaction*

3.4. Commuter satisfaction and commuter loyalty

In order for a commuter to be loyal toward the service that he or she receives, it is important that s/he be satisfied. Satisfaction occurs when the commuter evaluates the perceived discrepancy between prior expectations and actual performance of the service (Tse & Wilton, 2012). This implies that commuter satisfaction and commuter loyalty cannot be separated, because the formation of commuter or customer loyalty includes a series of customers' (now the commuter) judgments and experiences from the service that he or she receives (Rai & Medha, 2013). A study by Wicks and Roethlein (2009) demonstrated that a business that constantly satisfies its customers enjoys greater retention levels and bigger profitability due to increased commuter loyalty. Titko and Lace (2010) also argue that the direct result of commuter satisfaction is loyalty. Based on what has been explained, the association between commuter satisfaction and commuter loyalty is taken to be applicable to the Gautrain scenario, in the sense that commuter satisfaction leads to commuter loyalty. Thus, the following hypothesis is proposed:
H4: *Gautrain commuter satisfaction has a positive influence on commuter loyalty*

4. RESEARCH METHODOLOGY

4.1. Measurement instruments

Research scales were designed on the basis of previous work. Proper modifications were made in order to fit the current research context and purpose. Customer Loyalty was measured using five-item scales adapted from Noyan and Simsek (2013). Perceived safety' used a five-item scale measure adapted from Willis, Brown and Prussia (2012). Perceived convenience used a five-item scale measure adapted from Orel and Kara (2014).

Customer satisfaction was measured using a five-item scale, from Lewin (2009). Measurement scales were configured on a five-point Likert-type scale that was anchored by 1 (strongly disagree) to 5 (strongly agree) in order to express the degree of agreement.

4.2. Sample description

A total of 500 questionnaires were distributed to different Gautrain users in the Gauteng Province in South Africa during weekdays in March 2015. A total of were distributed, 285 questionnaires were returned of which only 260 were usable. This yielded a valid response rate of about 52%. Descriptive statistics in Table 1 show the gender, marital status, and age of employees.

As indicated in Table 1, this study shows that males constituted 53% of the total respondents. In terms of the age groups of respondents, individuals were were less than 30 years of age were the greatest number (49%) in the study, followed by those aged between 31 and 60 (43%). Respondents who are married constituted 25% of the sample while those who were single which constituted 75% of the sample.

Table 1. Sample demographic characteristics

Gender	Frequency	Percentage
Male	110	53%
Female	96	47%
Total	**206**	**100%**
Age	**Frequency**	**Percentage**
≦30	100	49%
31-60	88	43%
≧ 60	18	8%
Total	**206**	**100%**
Marital status	**Frequency**	**Percentage**
Married	51	25%
Single	155	75%
Total	**206**	**100%**

4.3. Psychometric Properties of the Measurement Scale

Psychometric properties of the measurement scale are reported in Table 2, which presents the research constructs, Cronbach alpha test, composite reliability (CR), Average variance extracted (AVE) and item loadings.

The lowest item to total loading observed was GI 1 with 0.525 and the highest was CL4 with 0.929. The lowest factor loading observed was 0.537 and the highest is 0.950. This shows that the measurement instruments are valid. The lowest Cronbach alpha was 0.660 and the highest was 0.893 which shows that the constructs were internally consistent or reliable and explained more that 60% of the variance. All composite reliability values were above the recommended minimum of 0.7 (Bagozzi & Yi 1988), which further attests to the reliability of the measurement instrument used in the study. One of the methods used to ascertain the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. These results are reported in Table 3.

A correlation value between constructs of less than 0.60 is recommended in the empirical literature to confirm the existence of discriminant validity (Bagozzi & Yi, 1988). As can be observed from Table 3, all the correlations were below the acceptable level of 0.60. The diagonal values in bold are the Shared Variances (SV) for the respective research constructs. The Shared Variance is expected to be greater than the correlation coefficients of the corresponding research constructs. Drawing from Table 2 and 3 above, the results further confirm the existence of discriminant validity. To ascertain convergent validity, the factor loadings were considered in order to assess if they were above the recommended minimum value of 0.5 (Nunnally & Bernstein, 1994). The factor loadings for scale items (Table 2) were above the recommended 0.5, which indicated that the instruments were valid and converging well on the constructs that they were expected to measure.

Table 2. Measurement Accuracy Assessment and Descriptive Statistics

Research constructs	*Descriptive statistics**		*Cronbach's test*		*C.R.*	*AVE*	*Item Loadings*
	Mean	*SD*	*Item-total*	*α Value*			
Gautrain Convenience (GC)							
GC 2	2.60	1.177	0.901	0.893	0.892	0.709	0.904
GC 3			0.823				0.845
Gautrain Image (GI)							
GI 1	2.01	1.072	0.525	0.660	0.755	0.569	0.537
GI 2			0.809				0.812
GI 3			0.583				0.586
GI 4			0.917				0.821
Gautrain Satisfaction (GS)							
GS1	3.15	1.007	0.763	0.702	0.701	0.665	0.799

Research constructs	*Descriptive statistics**		*Cronbach's test*		*C.R.*	*AVE*	*Item Loadings*
	Mean	*SD*	*Item-total*	*α Value*			
GS2			0.743				0.759
GS3			0.631				0.664
GS4			0.622				0.641
Customer Satisfaction (CS)							
CS1	3.08	1.367	0.815	0.799	0.799	0.643	0.819
CS2			0.833				0.849
CS3			0.839				0.856
CS5			0.657				0.661
Customer Loyalty (CL)							
CL1	3.03	1.300	0.691	0.780	0.776	0.722	0.694
CL2			0.556				0.579
CL3			0.602				0.606
CL4			0.929				0.950
CL5			0.855				0.863
GC= Perceived Gautrain Convenience; GI= Perceived Gautrain Image; GS= Perceived Gautrain Safety; CS= Customer Satisfaction; CL= Customer Loyalty							

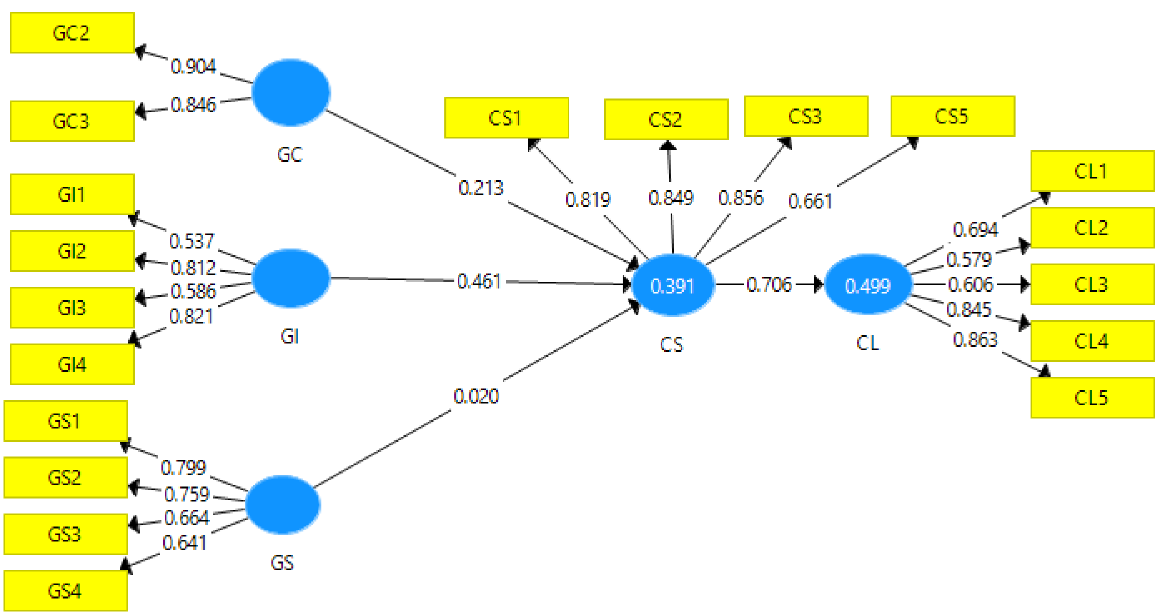
Table 3. Inter-Construct Correlation Matrix

Variables	*CL*	*CS*	*GC*	*GI*	*GS*
CL	**0.600**				
CS	0.554	**0.598**			
GC	0.523	0.560	**0.438**		
GI	0.473	0.523	0.443	**0.565**	
GS	0.378	0.375	0.297	0.549	**0.592**
GC= Perceived Gautrain Convenience; GI= Perceived Gautrain Image; GS= Perceived Gautrain Safety; CS= Customer Satisfaction; CL= Customer Loyalty					

4.4. Path Modelling Results:

After confirming the reliability and validity of the measurement instruments (reported in Table 2), the study proceeded to test the proposed hypotheses. In total there are four hypotheses that are tested. In the path model, Perceived Gautrain Convenience (GC), Perceived Gautrain Image (GI) and Perceived Gautrain Safety (GS) are the predictor variables. Commuter Satisfaction (CS) and Commuter Loyalty (CL) are the outcome/dependent variables. Figure 2 provides the proposed hypotheses and the respective path coefficients. The same results of the path coefficients are tabulated in Table 2 depicting the Item to Total correlations, Average variance extracted (AVE), Composite Reliability (CR) and Factor Loadings.

Figure 2. Path Modelling and Factor Loading Results



4.5. Path model results and factor loadings

Below is Figure 2, indicating the path modelling results and as well as the item loadings for the research constructs. In the figure, GC stands for Perceived Gautrain Convenience; GI stands for Perceived Gautrain Image; GS is the acronym for Perceived Gautrain Safety; CS stands for Customer Satisfaction; and CL is the acronym for Customer Loyalty.

After running the data on the Smart PLS software, three items (GC1, GC4 and GC5) on the perceived Gautrain convenience scale were deleted due to the fact that the factor loadings were below 0.5 which is the recommended minimum threshold. With regards to perceived Gautrain image, one item (GI5) was deleted and in terms of perceived Gautrain safety, one item (GS5) was deleted because the factor loadings were below the cut-off point which is 0.5. With reference to customer satisfaction, one item (CS4) was also deleted because its factor loading was below 0.5. Based on these results, the decisions made on the hypotheses are summarised in Table 4.

Table 4. Results of structural equation model analysis

Path	*Hypothesis*	*Path coefficients (β)*	*T- Statistics*	*Decision on Hypotheses*
Perceived Gautrain Convenience (GC) → Customer Satisfaction (CS)	**H1**	0.315[a]	6.659	Accept/ Significant
Perceived Gautrain Image (GI) → Customer Satisfaction (CS)	**H2**	0.458[a]	10.610	Accept/ Significant
Perceived Gautrain Safety (GS) → Customer Satisfaction (CS)	**H3**	0.223[a]	3.143	Accept/ Significant
Customer Satisfaction (CS) →Customer Loyalty (CL)	**H4**	0.534[a]	12.989	Accept/ Significant

[a]Significance Level p<.10; [b]Significance Level p<.05; [c]Significance Level p<.01

Table 4 presents the four hypothesised relationships, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic indicates whether the relationship is significant or not. A significant relationship is expected to have a t-statistics that is above 2. Drawing from the results provided in Table 4, four of the hypothesised relationships (H1, H2, H3 and H4) were statistically significant.

5. DISCUSSION

The purpose of this paper was to examine the causal relationships between perceived convenience, perceived image, perceived climate safety, commuter satisfaction and commuter loyalty in the Gautrain in public transportation service in South Africa. The first hypothesis stated that perceived convenience of the Gautrain has a positive influence on customer satisfaction. In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 4 that perceived Gautrain convenience exerted a positive influence (r =0.315) and was statistically significant (t=6.659) in predicting customer satisfaction. This result implies that perceived Gautrain convenience directly influence customer satisfaction in a positive and significant fashion. The higher the level of perceived Gautrain convenience the higher the level of satisfaction that commuters experience.

The second hypothesis suggested that perceived image of the Gautrain has a positive influence on customer satisfaction. This hypothesis was supported in this study. Figure 1 and Table 4, indicate that perceived Gautrain image H2 was supported. Perceived Gautrain image exerted a positive influence (r= 0.458) on customer satisfaction and was statistically significant (t= 10.610). This result denotes that perceived Gautrain image is positively and significantly related to customer satisfaction. Thus higher levels of perceived Gautrain image will lead to higher levels of customer satisfaction.

The third hypothesis, which advanced that perceived Gautrain safety exerts a positive influence on customer satisfaction was supported and accepted in this study. It is reported in Figure 1 and Table 4 that H3 perceived Gautrain safety exerts a positive (r=0.223) influence on customer satisfaction and that this influence is statistically significant (t=3.413). This result suggests that Gautrain safety has a direct positive effect on customer satisfaction. Thus, the more effective the perceived Gautrain safety, the greater the satisfaction of commuters.

The final hypothesis postulated that customer satisfaction exerts a positive influence on customer loyalty. In this study, this hypothesis was supported and accepted. As can be deducted from Figure 1and Table 4, customer satisfaction exerted a positive and significant influence (r=0.534; t=12.989) on customer loyalty. This result depicts that customer satisfaction is associated with higher customer loyalty.

Perceived Gautrain image (r=0.458) emerged as the highest scoring construct amongst the three factors influencing customer satisfaction. Perhaps, this result could be attributed to the fact that most users of the Gautrain are image conscious in the sense that their use of this utility portrays a certain image amongst them. As shown by a previous study conducted by Musakwa (2014), Gautrain is highly priced in such a way that only middle class and upper class individuals can afford to use it on a regular basis. This depicts that it is possible that this cohort of commuters have the potential of deserting the Gautrain should the current price regime be reversed to permit low income earners to use it. Comins (2013) further reports on the increase in materialism amongst black South Africans, who form the bulk of the users of Gautrain. This is significant, since materialism, image and status typically go hand in hand (Ngong, 2009). In other words, use of the Gautrain is associated with a certain status, and this possibly makes image a more important factor than convenience and safety. After all, both convenience and safety can be taken as sub-constructs of image since they both lead to the improvement of image. Thus, in order to enhance customer satisfaction, greater emphasis should be placed on perceived image than on perceived convenience and perceived safety climate.

6. LIMITATIONS AND FUTURE RESEARCH DIRECTION

A number of limitations were observed during this research. First, the study was restricted to five factors only; namely perceived convenience, perceived image, perceived safety, customer satisfaction and customer loyalty form the perception of the commuters. Future research could also include the perceptions of Gautrain employees as well. This could provide a basis for comparing the views of both commuters and employees. Second, the results are based on a small sample of 206 respondents, which makes it difficult to generalise the results to other contexts of mass rapid rail transit systems. Future studies could make use of amplified sample sizes in order to get more representative views. Additionally, there was insufficient literature on most of the constructs especially in the area of public transportation. Since this study used a quantitative approach, future studies could also use a mixed method approach so that in depth views of commuters can also be captured.

7. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The study validates that factors such as perceived convenience, image and safety are instrumental stimulating the satisfaction of users of mass rapid rail transit systems such as the Gautrain in South Africa. The study further validates that commuters using such a services are bound to stay loyal as long as they are satisfied with the rendered service. In addition, perceived image has a stronger impact on commuters of mass rapid rail transit systems when compared to perceived convenience and perceived safety.

The study has both theoretical and managerial implications. Theoretically, this study makes a noteworthy progression in marketing theory by methodically examining the interplay between perceived convenience, image and safety, customer satisfaction and loyalty. In this manner, the study is an important contributor to the existing literature on this subject. The study also underwrites a new direction in the research on consumer behaviour by opening up a discussion on the importance of marketing practices in the development and improvement of mass rapid rail transit systems in developing countries such as South Africa.

On the practical front, since perceived convenience, image and safety climate were exerted a positive influence on customer satisfaction, improvements in each of these three factors could stimulate higher customer satisfaction with the Gautrain. Perceived convenience can be improved by, among other things, expanding the use of the Gautrain to the rest of South Africa so that the service may be enjoyed by people in all regions of South Africa. The number of stations could be improved to ensure that the distance travelled by commuters on their way to board the Gautrain may be reduced. In addition, the frequency of the Gautrain could be improved by increasing the number of locomotives so that the train is available at every station within periods less than ten minutes, for example. Free Wi-Fi could also be made available inside the cabins for the convenience of commuters. To increase its perceived image, more focused advertising is necessary which broadcasts the benefits of using the Gautrain. Whilst it is acknowledged that there is sufficient parking bays for cars in Gautrain, the number should be improved so that no Gautrain commuter experiences challenges related to the shortage of parking. Promotional packages such as free tickets could be made available as this will also improve the perceived image of the Gautrain amongst users, prompting those who are not using it currently to try it. To increase perceived safety, cash transactions could be discouraged, so that most users can purchase tickets online or by card, which gives them less chances of getting nabbed. Security could also be strengthened within the trains, such as through the physical presence of security details as well as the remote monitoring of events through closed circuit television (cctv).

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DETERMINANTS OF DIVIDEND POLICY IN GCC FIRMS: AN APPLICATION OF PARTIAL LEAST SQUARE METHOD

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Abstract

This study focuses on providing empirical evidence on explanation of alternate dividend theories and determinants of payout policies by examining the GCC market. The study explores the financial determinants of the dividend payout policies by examining 646 dividend intensive firms of the GCC. The results suggest that large firms in GCC tends to have larger retained cash flows and tend to have higher dividend intensity. It can be implied that GCC based firms adopt a balanced and cautious approach regarding future growth opportunities as well as the dividend payout policy. Higher the liquidity and profitability signals higher dividend intensity. GCC firms which are liquid and profitable tend to pay more dividends. GCC firms with higher market valuation tend to pay more dividends. Firms with high growth rates of earnings and assets tend to pay less dividends. Firms with high leverage are riskier and risky firms tend to pay less dividends.

Keywords: Dividend Payout, Investment Intensity, Market Valuation, PLS SEM, Residual Theory, Pecking Order Theory, Signaling Theory

1. INTRODUCTION

It is a known fact that companies which pay out regularly to shareholders from earnings convey a powerful message about the future prospects of the company. A firm's willingness and ability for dividend payment reflects the nature of the fundamentals of the companies. Typically mature companies pay dividends. The three major pillars of decision making in corporate finance are the investment, financing and dividend decisions. For value maximization a firm must invest in projects that earn a return greater than the minimum acceptable hurdle rate. The dividend principle states that if there are not enough investment opportunities, then ideally a firm should return the cash to the stock holders. The forms of returns i.e. dividends and stock buybacks will depend on the stockholder's characteristics. Studies have shown that dividends have made up the lion's share of an investor's total return. Professor Jeremy Siegel's study based over a century had found out that roughly three quarters of the real return from stock market came from dividends with only one quarter from capital gains.[1] One of the advantages of dividends is that they provide investors with consistent realized income on a quarterly basis. Capital gains are not realized until the shares are not actually sold. Moreover, capital gains can disappear by the drop in stock price. Dividends may also have tax advantages. In essence dividends are distributions of a portion of a firm's earnings to its shareholders. Dividends also provide a way for investors to assess a firm as an investment prospect. In its years of high growth, Microsoft paid no dividends but reinvested all earnings to fuel further growth. But when growth slowed down from the unprecedented rate, the company started to return back to the shareholders in the form of dividends and buybacks. Apple started paying dividends only in 2012.

Generally, there are three schools of thought on dividend policy. The dividend irrelevance theory proposed by Miller and Modigliani suggest that dividends do not affect the firm value. This theory is based on the assumption that dividends is not a tax disadvantage for an investor and firms can raise funds in capital markets for new investments without much issuance costs. The second school of thought proposes that dividends are bad as they have a tax disadvantage for average shareholder and hence value of firm decreases when dividends are paid. Dividends create a tax disadvantage for investors who receive them when they are taxed much more heavily than price appreciation (capital gains). In such a scenario, dividend payments will reduce the returns to the shareholders after personal taxes. The third school of thought proposes that dividends can increase the value of the firm. Investors usually prefer dividends to capital gains since dividends are certain and capital gains are not. Investors who are risk averse prefer dividends. Investors often invest in stocks of companies with dividend policies which match their preferences. This pattern of clustering stocks in companies is called client effect. Dividends also convey signals to stock markets. Event studies provide empirical evidence regarding price reactions to dividend increases

[1] http://www.forbes.com/2011/09/30/the-importance-of-dividends

The third school of thought states that dividends are good and can increase the value of the firm. Investors prefer dividends to capital gains since dividends are certain and capital gains are not. Risk averse investors will therefore prefer dividends. The clientele effect suggests that stockholders tend to invest in firms whose dividend policies match their preferences. This clustering of stocks in companies with dividend policies that match their preferences is called the client effect. Dividends also operate as an information signal to financial markets. The empirical evidence concerning price reactions to dividend increases and decreases is consistent at least on average with this signaling theory.

2. OBJECTIVES OF THE STUDY

This study aims to provide empirical evidence on explanation of alternate dividend theories and determinants of payout policies by examining the GCC market. The study focuses on explaining the financial determinants of the dividend payout policies by examining the dividend intensive firms of the GCC Countries.

3. THEORETICAL POSTULATES

The residual theory of dividends postulates a negative relationship between dividend payout and external financing costs. The dividend decisions of firms are influenced by the investment policy of the firms. The residual theory is built with the assumption that firms which experience higher revenue growth have higher capital investment expenditures. Such firms tend to reinvest earnings back into the firm rather than paying dividends. In other words, on account of costly external financing, firms tend to establish lower dividend payout. If managers expect higher growth rate of revenues in future, then the firm is most likely to retain funds for future capital expenditures by lowering the dividend payout. The residual theory further affirms that a company would pay dividends only when its internally generated funds are not completely used for investment purposes. Firms which have high growth rates have large investment requirements. The pecking order theory hypothesizes that the growth firms should be characterized by low payout ratios. The variability in capital structure indicates that a company will have greater accessibility to capital markets as the firm will be able to switch between debt and equity and take advantage of lower transaction costs. This flexibility facilitates the firms with ability to pay more stable and higher dividends. Hence a positive relationship between dividend payout and capital structure variability is expected.

One of the main explanation in literature for dividend payouts is the mitigation of agency problems between managers and shareholders. Payouts tend to lower retained earnings and forces managers to access the external capital markets to finance new projects. The external financial markets play a disciplining and monitoring role that presumably reduces managers' incentives to engage in empire-building activities.

Dividends can be used as a means to reduce agency costs. This hypothesis holds when the outside shareholder's equity ownership is large compared to insider promoter's shareholding. It can be hypothesized that firms pay higher dividends in order to reduce agency costs. Outside shareholders demand more dividends. Thus dividend payout is positively related to the percentage of ownership of outside shareholders in the firm. In other words, the dividend payout will be negatively related to the percentage of stocks held by investors. Agency problems are also likely to be more severe when a firm has excess cash, which increases the pressure on managers to pay dividends.

Signaling theory suggest that dividend payments signals information about the current or future level of earnings. In this context stability of cash flows can be related to dividend payout. An inverse relationship between cash flow variance and dividend payout ratio can be expected. Relationship between financial slack and dividend payout can also be expected. Firms tend to increase their financial slack in order to maintain their ability to undertake profitable investments thereby reducing dividend payments. Financial slack is expected to be inversely related to dividend payout ratio. Another critical determinant of dividend decision is liquidity. Firms with higher cash flows tend to distribute higher cash dividends in order to reduce agency costs. Profitability is also a factor affecting dividend decisions. Higher the profitability of companies, greater would be the propensity to give dividends. Higher measure of beta signals higher operating and financial leverage. Firms with higher fixed charges like interest payments pay lower dividends in order to avoid the cost of external financing. Internal financing through retained earnings are less costly compared to external financing.

4. REVIEW OF LITERATURE

Lintner (1956) suggests that firms have target payout ratios and adjust dividends to earnings with a lag. The study finds three consistent patterns. Firstly, the firms set target dividend payout ratios by determining the fraction of earnings which would be paid out as dividends in long term. Secondly they change dividends to match long term and sustainable shifts in earnings. Thirdly the study finds that managers are much more concerned about changes in dividends than about the level of dividends. Fama and Baiak (1968) confirmed Linter's findings that dividend changes tend to follow earnings changes. Miller and Modigliani (1961) establish the irrelevance of dividend policy in a perfect capital market. The study finds that dividend policy is irrelevant in valuing the current worth of shares in the context of irrational assumptions, market perfections, zero transaction costs and indifferent behavior of investors. Higgins (1972) employs a model which utilizes the firm's cash flow constraint and its optimal debt equity ratio to derive an expression which relates dividends to profits and investment. The Higgin model suggests that the optimal payout is a function of residual dividend policy combined with the minimization of the sum of the costs of "excessive current assets" and the costs of external equity financing. This study also suggests that the dividend payout of firms is influenced by factors like the fund requirement for investment purposes and debt financing requirements. Fama (1974) finds support for the fact that investment influences dividend policy. Miller and Scholes (1978) present sufficient conditions for taxable investors to be indifferent to dividends despite tax differentials in favor of capital gains. Macabe (1979) suggests that new long term debt have a negative influence on the dividend policy. Rozeff (1982) suggest that investment policy influences dividend policy. The study suggests that agency costs decline as dividend payout is increased but at the same time the transaction costs of financing increases. In such a case an optimum cost can be derived at a lower dividend payout ratio. The model results of the study suggest that dividend payout is negatively related to the firm's past and expected future growth rate of sales, beta coefficient, percentage of stock held by insiders and significantly positively related to the number of stock holders. Rozeff (1982) uses the equity beta to proxy for the cost of external financing. Firms use debt more frequently than equity when raising external capital. It can be hypothesized that other things equal, a firm having higher operating and financial leverage will choose a lower dividend payout policy in order to minimize the cost of external financing. Hence dividend payout ratio is negatively related to the firm's beta coefficient. Firm size measured as the log of total assets can be used as proxy for the cost of external debt financing. A positive relationship is expected between size and dividend payout since large firms face lower issuing costs. The pecking order advocated by Myers and Majluf (1984) hypotheses that growth firms should be characterized by low payout ratios.

The study by Kasim et al (1993) finds strong support for the transaction cost/residual theory of dividends, pecking order argument and role of dividends in mitigating agency problems. The study also finds that firms with financial flexibility that maintain stable dividends pay higher dividends.

The tax clientele argument postulated by studies like Elton and Gruber (1970), Litzenberger and Ramaswamy (1979), Brennan (1990), DeAngelo and Masulis (1980), that investors in low tax brackets prefer high dividend paying stocks when compared to investors in high tax brackets. Study by Sterk and Vandenberg (1990) find a preference for cash dividends despite the elimination of different tax rates between capital gains and dividend income.

Kale and Nole (1990) suggest that dividends are used to signal the quality of the firm's cash flows. Aharony et al (1980) shows that managers use cash dividend announcements to signal changes in their expectations about future prospects of the firm. The study by Asquith et al (1983) investigates the impact of dividends on stock holder's wealth by analyzing 168 firms that either pay the first dividend in their corporate history or initiate dividends after a 10-year hiatus. The empirical results exhibit larger positive excess returns. Miller et al (1982) extend the standard finance model of the firm's dividend decisions by allowing the firm's managers to know more than outside investors about the true state of the firm's current earnings. The studies by Bhattacharya (1979), John and Williams (1985) and Kane, Lee and Marcus (1984) finds that dividends can convey information about the current or future level of earnings. The empirical studies by Watts (1973), Gonedes (1978), Penman (1983), Kumar (1988) indicates that dividends are not good predictors of the firm's future earnings.

Dividends can be used in reducing the agency problem between managers and stockholders. Jensen and Meckling (1976) define the concept of agency costs and investigate the nature of agency costs generated by the existence of debt and equity. In his seminal paper, Jensen points that payment of dividends reduces the discretionary funds which are available to managers and helps to reduce the agency conflict which exist between managers and stockholders. Crutchley (1989) suggest that equity agency costs can be reduced by increasing dividends. The work r by Easterbrook (1984) examines whether dividends are a method of aligning managers' interest with those of investors and offers agency cost explanations of dividends. Jensen et al (1992) finds that high insider ownership firms choose lower levels of both debt and dividends. Their results suggest that the effects of profitability, growth and investment spending on debt and dividend policy support a modified "pecking order" hypothesis.

The studies by Linter (1956), Baker et al (1985), Fama and Babiak (1968), Laub (1976) finds that firms prefer a certain degree of stability in dividend payments. Titman and Wessels (1988) suggest that firms having more collateralizable assets have fewer agency problems between bondholders and stockholders as these assets serve as collateral against borrowing. Therefore, a positive relationship is expected between the ratio of net plant to total assets and dividend payout.

Benito and Young (2001) find that liquidity and dividend payment behavior of a company have a direct relationship. Deshmukh (2005) examine the effect of asymmetric information on dividend policy in light of an alternative explanation based on the pecking order theory. The study finds that dividends are inversely related to the level of asymmetric information. This finding is consistent with the pecking order theory, but inconsistent with the signaling theory.

The study by Denis et al (2008) using sample countries over the period 1994-2002 finds that in countries like US, Canada, UK, France and Japan, the propensity to pay dividends is higher among larger more profitable firms and for those which retained earnings comprise a large fraction of total equity. The study supports agency cost based life cycle theories and cast doubt on signaling, clientele and catering explanations for dividend. The empirical paper by Kuo et al (2013) study the determinants of dividend payout policy and examine the role of liquidity, risk and catering in explaining the propensity to pay. The results indicate that risk play a major role in firms' dividend policy. The study further points that liquidity is an important determinant of dividend payout policy in developed markets of US and Europe. The study by Louis et al (2015) find that the effect of conservatism on dividend payout is more negative when agency conflicts between managers and shareholders are potentially more pronounced.

5. DATA AND METHODOLOGY

The data for this study is collected from Thomson Reuter's website for the companies from GCC. There were 646 companies with some companies there were some missing information. The study used stochastic multiple regression imputation algorithm for missing data. The values for the variables are the average values during the period 2010-2015.

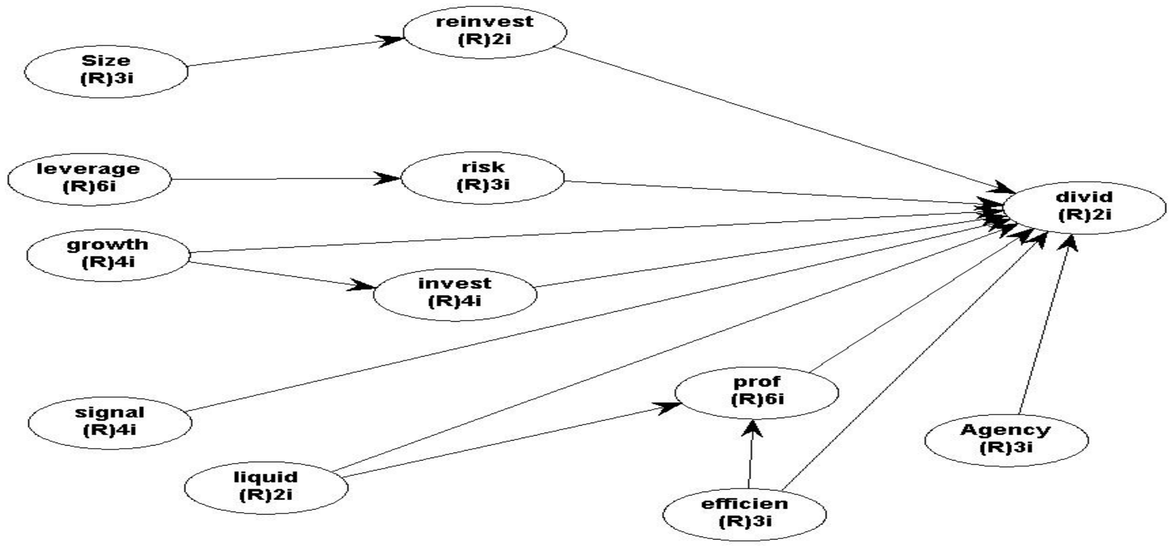
In most of the management research variables of importance are often latent and a proxy is used with a single variable. This fails to capture the real effect of the construct on the dependent variable. The structural equation modeling (SEM) procedure is often useful to address this issue by including all the reflective indicators to represent a meaningful construct. There are two types of SEMs popularly used in management research, namely, covariance-based structural equation modeling (CB-SEM) and partial least squares structural equations modeling (PLS-SEM). Recently, there has been an increased use of PLS-SEM rather than CB-SEM due to both theoretical and methodological reasons (Hair et al., 2012). This study uses PLS-SEM using WrapPLS software which handles nonlinear relationships effectively.

PLS-SEM estimates latent variables through composites, which are exact linear combinations of the indicators assigned to the latent variables (Knock, 2014). PLS method focuses on maximizing the explained variance of the endogenous latent variables instead of reproducing the theoretical covariance matrix.

In this study we have twin objectives of developing a model that explains the path of dividend policy and its relationships with different important variables in GCC countries. PLS-SEM is used for this study for model development and prediction of theories as suggested by Hair et al., 2011, 2012).

The model used in this study is reflective in nature and the path diagram of the model is presented in figure-1.

Figure 1. Reflective Model



6. EMPIRICAL ANALYSIS AND RESULTS

For the initial assessment of the model all the indicators representing latent variables mentioned in the list of variables are used. The loadings of all the indicators are used in the model for scale purification. Any indicator which has less than 0.5 loading is dropped from the model. This exercise of scale purification is essential as only highly correlated indicators can qualify to explain latent variables. There are quite a few indicators loadings turned out to be below 0.5 and hence not included in the main model. After dropping the indicators with less loading the model is re-estimated once again. The indicators combined loading and cross loading is presented in Appendix-3. Desirable P value for loadings should be <0.05 and in our model all the loadings qualifies this criterion.

After scale purification the model is estimated again for reliability and validity of the construct used in the measurement model. This study employs the reflective measurement scale as the indicators are highly correlated and interchangeable. Indicators of reflective measurement model should be assessed for its reliability and validity in order to achieve consistency (Hair et al., 2013; Petter et al., 2007).

Table 2. Reliability and Validity

Latent Variables	*Composite reliability coefficients*	*Cronbach's alpha coefficients*	*Average variances extracted*	*Full collinearity VIFs*
Size	0.92	0.869	0.79	1.71
Reinvestment	0.653	**-0.063**	0.49	1.078
Agency Cost	0.825	**0.576**	0.70	2.02
Leverage	0.793	**0.605**	0.56	1.383
Investment Intensity	0.847	**0.638**	0.73	1.16
efficiency	0.774	**0.415**	0.63	2.001
profitability	0.959	0.915	0.92	1.292
Dividend intensity	0.746	**0.321**	0.59	1.091
Signaling	0.668	**0.006**	0.50	1.064
Liquidity	0.997	0.995	0.99	1.039
Growth	0.751	**0.335**	0.60	1.119
risk	0.983	0.974	0.95	1.344

6.1. Reliability assessment:

The internal consistency reliability of reflective measures is analyzed through composite reliability and Cronbach's alpha. Composite reliability is used as an estimate of the internal consistency and of the construct as suggested by Hair et al. (2011). Composite reliability values of 0.60 to 0.70 in exploratory research and values from 0.70 to 0.90 in more advanced stages of research are regarded as satisfactory (Nunnally and Bernstein 1994). As shown in Table-2, the composite reliability score of all the latent variables are above 0.65 indicating latent variables are reliable.

Reliability of measurement model in measuring intended latent constructs is checked using Cronbach alpha score. Nunnally (1978) suggest that Cronbach alpha greater than 0.7 indicate that the measurement model is reliable. As seen in the above Table-2, there are eight latent variables where Cronbach alpha value is less than 0.7 but their composite reliability and average variance extracted (AVE) values are high, hence these latent variables are retained in the model.

6.2. Construct Validity

The estimated strength of these relationships in the model between the latent variables can only be meaningfully interpreted if construct validity was established (Peter and Churchill 1986). In order to test construct validity, the convergent and discriminant validity is used.

Convergent validity is measured using the average variance extracted (AVE) which the grand mean value of the squared loadings of all indicators associated with the construct. Each construct should account for at least 50 per cent of the assigned indicators' variance. As can be seen from the table-2 that all the latent variables have AVE values more than 0.5 except reinvestment. For latent variable reinvestment the value is 0.49 which it is very close to the cutoff point so this variable is retained.

Discriminant validity ensures that a construct measure is empirically unique and represents phenomena of interest that other measures in a structural equation model do not capture (Hair et al. 2010). Discriminant Validity is established if a latent variable accounts for more variance in its associated indicator variables than it shares with other constructs in the same model (Fornell and Larcker 1981). The Fornell Larcker criterion suggests that the square root of AVE must be greater than the correlation of the construct with all other constructs in the structural model. Table-3 shows the correlations among latent variables with square root of average variance extracted by each latent variable. It can be seen that each latent variable AVEs is higher than the correlation of the latent variables indicating discriminant validity of the latent variables.

Another popular approach for establishing discriminant validity at the item level is by the assessment of cross-loadings. According to Gefen and Straub (2005), discriminant validity is established if each measurement item correlates weakly with all other constructs except for the one to which it is theoretically associated. In Appendix-3 the result of cross loading is presented and can be seen that each measurement items correlates weakly with all other constructs.

After establishing reliability and validity of the latent variables, the model is ready for interpretation and analysis of path coefficient and assessment of the model fit and quality indices.

6.3. Results of the measurement model (outer model) of PLS-SEM

Path coefficient of the measurement model is estimated using various schemes to ensure robustness of the relationship. Stable method relies directly on the application of exponential smoothing formulas and yields estimates of the actual standard errors that are consistent with those obtained via bootstrapping, in many cases yielding more precise estimates of the actual standard errors (Kock, 2014).

Bootstrapping creates number of resamples, in this case 500, replacement where each resample contains a random arrangement of the rows of the original dataset, where some rows may be repeated. On the other hand, Blindfolding employs, a resampling algorithm that creates a number of resamples by a method whereby each resample has a certain number of rows replaced with the means of the respective columns.

Figure 2. NonLinear Measurement Model

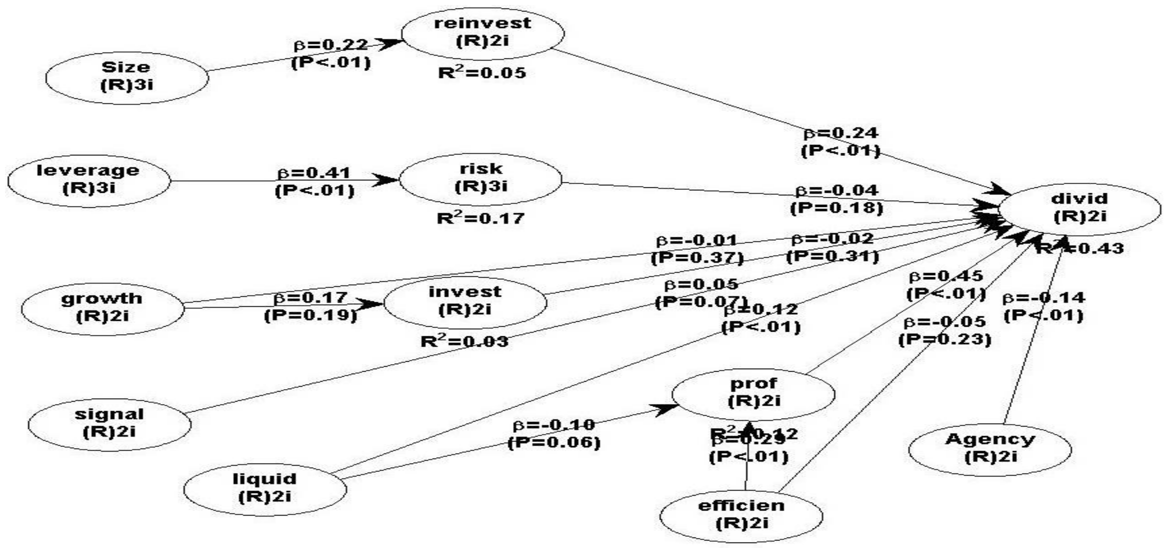


Table 3. Correlation among latent variables with square root of AVEs

Latent Variables	*Size*	*Reinvestment*	*Agency Cost*	*Leverage*	*Investment Intensity*	*efficiency*	*profitability*	*Dividend intensity*	*Signaling*	*Liquidity*	*Growth*	*risk*
Size	-0.89											
Reinvestment	0.111	-0.696										
Agency Cost	-0.109	0.027	-0.838									
Leverage	0.414	-0.125	-0.179	-0.75								
Investment Intensity	-0.023	-0.063	-0.185	-0.001	-0.857							
efficiency	0.018	0.068	0.646	-0.116	-0.147	-0.794						
profitability	0.243	0.04	-0.102	-0.042	-0.06	0.192	-0.96					
Dividend intensity	0.058	0.056	-0.107	-0.082	-0.03	-0.057	0.211	-0.772				
Signaling	0.037	0.024	-0.023	0.149	0	-0.113	0.011	0.105	-0.708			
Liquidity	-0.112	-0.034	-0.086	-0.089	0.103	-0.073	-0.044	0.013	-0.001	-0.997		
Growth	0.066	-0.081	-0.03	0.061	0.288	-0.037	0.053	0.052	0.002	-0.027	-0.775	
risk	0.488	-0.044	-0.098	0.248	0.026	-0.055	0.068	-0.009	0	-0.027	0.032	-0.975
Note: Square root of Variance extracted is shown in the diagonal												

Table 4. R-square, Adj R square and Q-square of the models

	Non Linear Model			*Linear Model*		
Latent Variables	*R-squared coefficients*	*Adjusted R-squared coefficients*	*Q-Square*	*R-squared coefficients*	*Adjusted R-squared coefficients*	*Q-Square*
Reinvestment	0.05	0.049	0.051	0.046	0.044	0.046
Investment Intensity	0.03	0.028	0.03	0.007	0.006	0.008
Profitability	0.12	0.117	0.122	0.11	0.107	0.111
Dividend intensity	0.435	0.427	0.436	0.471	0.464	0.472
Risk	0.167	0.166	0.168	0.167	0.166	0.167

Table 5. Path coefficient total effect using PLS regression

	Wraps Non Linear		*Wraps Non Linear*		*Linear*	
	Boot strapping		*Blindfolding*		*Boot strapping*	
Total effect	*Coefficient*	*P value*	*Coefficient*	*P value*	*Coefficient*	*P value*
Size -> reinvest	0.224	<0.001	0.224	<0.001	0.214	<0.001
growth -> Investment intensity	0.173	0.194	0.173	<0.001	0.086	0.224
efficiency > Prof	0.289	<0.001	0.289	<0.001	0.313	<0.001
liquidity -> prof	-0.101	0.058	-0.101	0.005	-0.078	0.071
reinvestment > div	0.244	<0.001	0.244	<0.001	0.219	<0.001
agency > div	-0.141	0.002	-0.141	<0.001	-0.232	<0.001
investment > div	-0.023	0.314	-0.023	0.276	-0.066	0.132
efficiency > div	-0.046	0.226	-0.046	0.122	-0.113	0.018
profitability > div	0.451	<0.001	0.451	<0.001	0.559	<0.001
signaling > div	0.051	0.07	0.051	0.099	0.083	0.007
liquidity > div	0.117	0.001	0.117	0.001	0.139	<0.001
growth > div	-0.013	0.369	-0.013	0.373	-0.08	0.004
risk > div	-0.036	0.184	-0.036	0.181	-0.076	0.012
leverage > risk	0.409	<0.001	0.409	<0.001	0.409	<0.001
No of observations	646		646		646	

The results for both linear and nonlinear models turned out to be similar in signs and values of the coefficients as shown in Table-5. The goodness of fit and quality indices is also very similar as shown in Table-6. All the estimated models were estimated using PLS regression with 500 resample used. The results of path coefficients and its corresponding P-value is presented in table-5.

The results suggest that large firms in GCC tends to have larger retained cash flows and tend to have higher dividend intensity. In path coefficient analysis results, size is positively related to latent variable of reinvestment with coefficient of 0.224 (linear model) and 0.214(nonlinear model). The above results are statistically significant at all levels. The relationship between growth and investment intensity was weak with no statistical significance. This may be true in case of GCC companies because investment intensity does not depend on growth rate of earnings or assets of the company. The path coefficient for management efficiency was positively related to profitability with statistical significance. Higher management efficiency leads to higher profitability. Liquid firms tend have lower profitability. The path coefficient results suggest that higher the liquidity of firms, higher is the propensity to pay dividends. The latent construct of liquidity is positively related to dividend intensity with statistical significance at all levels. Profitable firms tend to pay more dividends. The latent construct of capital intensity is negatively related to dividend intensity. Thus firms with high level of capital investments tend to pay lower dividends. But the results are not statistically significant. Companies with higher market valuations tend to pay more dividends. The results suggest that the signaling latent construct was positively related to dividend intensity. Signaling explains dividend policy but at 5% level of significance Thus high market valuations signal the dividend paying capacity of firms. Growth turned out to be not significant in nonlinear models but significant in linear model at 5% level of significance. The relationship is negative which indicates that growth negatively affects dividend policy. Hence it can be implied that high growth firms tend to pay less dividends. It can be implied that high growth firms have enough investment opportunities so that funds would be required to carry out future investment activities. Higher leverage results in higher risk. Risk variable is negatively related to the dividend policy variable with statistical significance at 5% for the linear model.

Model fit and quality indices of the measurement model is reported in Table-6. It indicates that all the indicators are within the acceptance range and significant. Tenenhaus goodness of fit is 0.342 which indicates that 34% of the variation is explained by the measurement model and considered to be medium fit. This ensures that the results are reliable and can be used for model building. The model fit for both linear and non-linear models are similar in values indicating there is not much difference in linear and non-linear models.

Table 6. Model fit and quality indices

Model fit and quality indices	*Non-Linear*	*Linear*	*Acceptance*
Average path coefficient (APC)	0.166	0.191	P<0.001
Average R-squared (ARS)	0.16	0.16	P=0.002
Average adjusted R-squared (AARS)	0.157	0.157	P=0.003
Average block VIF (AVIF)	1.215	1.429	Acceptable
Average full collinearity VIF (AFVIF)	1.924	1.924	Acceptable
Tenenhaus GoF (GoF)	0.342	0.342	Medium
Sympson's paradox ratio (SPR)	0.929	0.929	Acceptable
R-squared contribution ratio (RSCR)	0.997	0.994	Acceptable
Statistical suppression ratio (SSR)	1	0.714	Acceptable
Nonlinear bivariate causality direction ratio (NLBCDR)	0.857	0.857	Acceptable

7. CONCLUSION AND IMPLICATION

The study examines the major financial determinants of the dividend policy of firms in GCC region based on a sample of 646 companies. The values of the financial variables were based on average values during the period 2010-2015. The study finds that large firms in GCC tends to have higher retained cash flows and higher dividend payout intensity. Usually the portion of earnings which are not paid to investors is ideally used for investment purposes to provide for future earnings growth. It can be interpreted that higher the size of the firm, greater is its propensity to retain cash flows as well as payout dividends for the investors. Perhaps GCC based firms adopt a balanced and cautious approach regarding future growth opportunities as well as the dividend payout policy. According to residual theory of dividends, firms tend to reinvest earnings back into the firm rather than paying dividends. Firms tend to retain funds for future capital expenditures by means of reducing dividend payments. Firms with high growth rates tend to have higher investment requirements. Higher the liquidity and profitability signals higher dividend intensity. GCC firms which are liquid and profitable tend to pay more dividends. GCC firms with higher market valuation tend to pay more dividends. Firms with high growth rates of earnings and assets tend to pay less dividends. Firms with high leverage are riskier and risky firms tend to pay less dividends.

8. FUTURE DIRECTION

Future studies can focus on the role of an optimal mix of cash flow retention and dividend policy of firms in the GCC region.

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Appendix 1. List of variables and its definitions

Latent Variable	*Code*	*Variable*	*Variable definition*
Size	size_1	size_lnsale	Log of Sales
	size_2	size_Lnasset	Log of Assets
	size_3	Size_fixedA	Log of Fixed Assets
Reinvestment	reivest_1	reinvest_reear	Retained earnings/ Book value of equity
	reivest_2	reinvest_reop	Retained earnings/ Operating income
Agency Cost	Agency_1	Agency_sata	Sales/Total assets
	Agency_2	Agency_sepbdit	Selling and advertisement expenses/pbdit
	Agency_3	Agency_seta	Selling and advertisement expenses/total asset
Leverage	lever_1	Lev_tate	Total assets/total equity
	lever_2	Lev_icr	Interest coverage ratio
	lever_3	Lev_LTD	long term debt/ total assets
	lever_4	lev_TDTC	Total debt/ total capital
	lever_5	lev_DER	Debt equity ratio
	lever_6	Lev_tdr	Total debt ratio
Investment Intensity	Invest_1	Inv_capexta	Capital expenditure/ total asset
	Invest_2	Inv_capexs	Capital expenditure/ sales
	Invest_3	inv_gwcsa	Gross working capital/sales
	Invest_4	inv_gwcta	Gross working capital/total assets
efficiency	effic_1	effi_salenwc	Sales/Net working capital
	effic_2	effi_sanfa	Sales/Fixed assets
	effic_3	effi_sata	Sales/ Total assets
profitability	prof_1	prof_eps	Earnings per share (EPS)
	prof_2	prof_npm	Net profit margin
	prof_3	prof_roce	Returns on capital employed
	prof_4	prof_roic	Returns on invested capital
	prof_5	prof_roa	Returns on Assets (ROA)
	prof_6	Prof_roe	Returns on Equity (ROE)
Dividend intensity	divid_1	Div_dpseps	DPS/EPS
	divid_2	Div_divsa	Dividend / Sales
Signaling	signal_1	signal_pb	P/B =Price to Book Ratio
	signal_2	signal_pe	P/E = Price to Earnings Ratio
	signal_3	signal_ps	p/s = Price to Sales
	signal_4	signal_peg	Price Earnings growth (PEG)
Liquidity	liquid_1	liquid_cr	Current ratio
	liquid_2	liquid_qr	Quick ratio
Growth	growth_1	growth_sal	Sales growth
	growth_2	growth_pbdit	Growth of pbdit
	growth_3	growth_netin	Growth of net income
	growth_4	growth_asset	Growth of assets
risk	risk_1	risk_pbdit	Standard deviation of Pbdita
	risk_2	risk_pbit	Standard deviation of Pbit
	risk_3	risk_netin	Standard deviation of Net Income

Appendix 2. Descriptive Statistics

Table 2. Descriptive Statistics

Variables	*Mean*	*Std.Dev*	*Minimum*	*Maximum*	*Median*	*Mode*	*Skewness*	*Normality*
size_1	4.542	1.869	0	10.752	4.542	4.542	0.049	Yes
size_2	6.064	1.93	0.347	11.548	5.796	8.548	0.525	No
size_3	3.991	2.16	0	10.997	3.991	3.991	0.099	Yes
reivest_1	0.117	0.857	-13.362	2.3	0.267	0.004	-8.719	No
reivest_2	2.592	14.893	-150	150.094	2.384	2.592	0.511	No
Agency_1	0.41	0.507	-0.039	4.758	0.264	0	3.318	No
Agency_2	0.424	1.604	-15.206	10.465	0.424	0.424	-2.407	No
Agency_3	0.072	0.082	-0.044	1.25	0.057	0.072	5.823	No
lever_1	2.95	3.4	-12.719	39.48	1.898	3.521	3.836	No
lever_2	74.157	550.278	-2070.4	10454.7	14.084	74.157	15.652	No
lever_3	0.112	0.224	0	4.537	0.05	0	12.347	No
lever_4	0.275	0.245	-0.249	1.508	0.237	0	0.743	No
lever_5	627.972	15113	-27684	383103	31.915	0	25.139	No
lever_6	215.236	4885.67	0	124195	15.473	0	25.355	No
Invest_1	0.035	0.047	0	0.481	0.018	0	3.098	No
Invest_2	0.304	2.327	-1.875	54.292	0.053	0	20.357	No
Invest_3	1.302	1.73	-3.433	26.25	1.302	1.302	8.204	No
Invest_4	0.389	0.17	0.006	1	0.389	0.389	0.7	No
effic_1	3.675	13.358	-142.12	171.355	3.675	3.675	2.781	No
effic_2	7.852	16.749	-0.527	178.441	2.525	7.852	5.1	No
effic_3	0.41	0.507	-0.039	4.758	0.264	0	3.318	No
prof_1	1.126	5.554	-4.782	117.473	0.036	0.019	15.632	No
prof_2	-1530.4	32235.1	-813281	9916.91	12.003	-1530.4	-24.809	No
prof_3	0.042	0.1	-1.5	0.351	0.042	0.042	-6.226	No
prof_4	5.425	21.1	-457.02	125.03	5.649	-4.642	-16.012	No
prof_5	-9.808	338.14	-8577.8	36.078	3.485	-9.808	-25.245	No
prof_6	5.855	46.548	-1057.8	300.277	7.439	5.855	-18.046	No
divid_1	0.368	0.68	-12.684	5.271	0.368	0	-9.991	No
divid_2	0.104	0.194	0	2.985	0.05	0	7.381	No
signal_1	4.449	74.661	-223.62	1884.87	1.353	4.449	24.746	No
signal_2	-1530.4	32235.1	-813281	9916.91	12.003	-1530.4	-24.809	No
signal_3	42.338	401.834	-109.25	8447.83	2.825	42.338	16.4	No
signal_4	-0.723	17.789	-376.02	120.203	-0.367	-0.723	-14.632	No
liquid_1	3.548	10.886	0.002	264.757	3.495	3.548	21.718	No
liquid_2	2.738	7.867	0	181.84	2.647	2.738	19.096	No
growth_1	0.299	2.019	-2.564	43.167	0.089	0.299	17.076	No
growth_2	0.01	2.217	-12.094	49.561	0.033	0.01	17.158	No
growth_3	-0.128	1.675	-14.192	8.597	0.057	0	-1.788	No
growth_4	0.097	0.5	-1	11.976	0.053	-0.036	20.912	No
risk_1	42.451	127.946	0	1728.62	8.485	0	8.221	No
risk_2	40.79	126.851	0	1753.49	8.304	0	8.892	No
risk_3	40.135	110.991	0	1747.59	9.014	0.548	8.37	No

Appendix 3. Indicators Loadings and Cross Loadings

Indicators	*Size*	*Reinvestment*	*Agency Cost*	*Leverage*	*Investment Intensity*	*efficiency*	*profitability*	*Dividend intensity*	*Signaling*	*Liquidity*	*Growth*	*risk*	*SE*	*P*
size_1	-0.90	0.12	0.15	0.31	-0.15	0.22	0.30	0.03	0.03	-0.08	0.05	0.43	0.02	<0.001
size_2	-0.91	0.08	-0.30	0.45	0.03	-0.15	0.18	0.08	0.03	-0.09	0.09	0.46	0.01	<0.001
size_3	-0.86	0.10	-0.15	0.34	0.06	-0.02	0.17	0.05	0.03	-0.13	0.04	0.41	0.03	<0.001
reivest_1	0.19	-0.70	0.04	-0.16	-0.06	0.09	0.12	0.18	0.05	-0.03	-0.04	-0.03	0.04	<0.001
reivest_2	-0.04	-0.70	0.00	-0.01	-0.03	0.01	-0.07	-0.11	-0.01	-0.02	-0.07	-0.03	0.04	<0.001
Agency_1	-0.01	0.06	-0.84	-0.16	-0.18	0.79	0.24	-0.06	-0.01	-0.09	-0.03	-0.08	0.09	<0.001
Agency_3	-0.18	-0.01	-0.84	-0.14	-0.13	0.29	-0.42	-0.12	-0.03	-0.06	-0.02	-0.08	0.09	<0.001
lever_1	0.32	-0.21	-0.12	-0.71	-0.08	-0.11	-0.05	-0.05	0.16	-0.04	-0.03	0.25	0.07	<0.001
lever_3	0.19	-0.02	-0.12	-0.69	0.06	-0.09	-0.07	-0.04	0.09	-0.04	0.09	0.11	0.23	0.002
lever_4	0.42	-0.05	-0.16	-0.84	0.02	-0.06	0.02	-0.09	0.09	-0.12	0.08	0.21	0.15	<0.001
Invest_3	0.05	-0.02	-0.09	0.03	-0.86	-0.06	-0.02	-0.03	-0.01	0.00	0.26	0.01	0.09	<0.001
Invest_4	-0.09	-0.09	-0.23	-0.03	-0.86	-0.19	-0.08	-0.02	0.01	0.18	0.24	0.04	0.09	<0.001
effic_1	0.04	0.05	0.19	-0.02	-0.05	-0.79	0.06	-0.03	-0.18	-0.03	-0.03	-0.01	0.06	<0.001
effic_3	-0.01	0.06	0.84	-0.16	-0.18	-0.79	0.24	-0.06	-0.01	-0.09	-0.03	-0.08	0.06	<0.001
prof_3	0.26	0.05	-0.04	-0.04	-0.07	0.21	-0.96	0.25	0.01	-0.06	0.07	0.07	0.03	<0.001
prof_4	0.21	0.03	-0.16	-0.04	-0.04	0.16	-0.96	0.15	0.01	-0.03	0.04	0.06	0.03	<0.001
divid_1	0.07	0.11	0.04	0.00	-0.08	0.04	0.18	-0.77	0.16	-0.01	0.05	-0.02	0.13	<0.001
divid_2	0.02	-0.02	-0.21	-0.13	0.03	-0.13	0.15	-0.77	0.01	0.03	0.03	0.01	0.13	<0.001
signal_1	0.03	0.04	-0.02	0.19	-0.02	-0.12	0.02	0.13	-0.71	-0.01	0.01	-0.01	0.00	<0.001
signal_4	0.03	0.00	-0.01	0.02	0.02	-0.04	0.00	0.02	-0.71	0.01	-0.01	0.01	0.00	<0.001
liquid_1	-0.11	-0.03	-0.08	-0.09	0.09	-0.07	-0.04	0.01	0.00	-1.00	-0.03	-0.03	0.00	<0.001
liquid_2	-0.12	-0.04	-0.09	-0.09	0.12	-0.08	-0.05	0.02	0.00	-1.00	-0.03	-0.03	0.00	<0.001
growth_1	-0.01	-0.09	-0.04	0.02	0.43	-0.03	-0.02	-0.04	0.00	-0.01	-0.78	0.00	0.10	<0.001
growth_3	0.11	-0.04	0.00	0.07	0.02	-0.02	0.10	0.12	0.01	-0.03	-0.78	0.05	0.10	<0.001
risk_1	0.48	-0.03	-0.09	0.24	0.02	-0.04	0.07	0.00	0.00	-0.03	0.02	-0.98	0.01	<0.001
risk_2	0.46	-0.05	-0.09	0.23	0.03	-0.04	0.07	-0.01	0.00	-0.02	0.04	-0.99	0.01	<0.001
risk_3	0.49	-0.06	-0.11	0.26	0.03	-0.07	0.06	-0.02	0.00	-0.02	0.04	-0.96	0.02	<0.001

Note: Loadings are unrotated and cross loadings are oblique rotated. SE and P values are for loadings.

Appendix 4. Descriptive statistics

Latent variables	Min	Max	Median	Mode	Skewness	Kurtosis
Size	-1.823	1.952	-0.044	1.165	0.13	-1.133
Reinvestment	-2.043	2.086	-0.011	-1.591	-0.015	-0.909
Agency Cost	-2.015	1.981	-0.149	-2.009	0.055	-0.947
Leverage	-1.638	2.115	-0.046	1.563	0.127	-1.087
Investment Intensity	-2.724	2.358	-0.082	-0.596	-0.07	-0.156
Efficiency	-2.379	2.323	-0.157	-2.164	0.142	-0.359
Profitability	-1.813	1.814	-0.022	-0.505	0.006	-1.066
Dividend intensity	-1.203	2.088	-0.003	-1.203	0.252	-1.195
Signaling	-1.771	2.377	-0.02	0.558	0.255	-0.881
Liquidity	-2.281	1.425	0.659	0.734	-0.751	-0.837
Growth	-2.148	2.238	0.01	0.288	0.042	-0.62
Risk	-1.387	1.911	-0.133	-1.387	0.287	-1.19

HOLIDAYS' EFFECT AND OPTIMISM IN ANALYST RECOMMENDATIONS: EVIDENCE FROM EUROPE

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Abstract

This paper documents Holidays effect in analyst recommendations in European stock markets (Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden) during the period between 2003 and 2014. Our results indicate that analysts issue overly pessimistic recommendations on pre-holidays and overly optimistic recommendations on post-holidays (Christmas, Halloween and valentine). Our results are consistent with prior literature on day-of-the-week effect that documents upward trend in stock prices during the week and downward trend in stock prices over the weekend. We argue that by issuing bulk of favorable (optimistic) recommendations on Post-Holidays, analysts may hope to benefit from upward trend in stock prices. Similarly, by issuing bulk of unfavorable (pessimistic) recommendations on pre-holidays, analysts may hope to benefit from downward trend in stock prices. Moreover, we also show that our results are more pronounced in firms with higher information uncertainty and among less experienced analysts.

JEL Classification: G15; G20
Keywords: Analyst Recommendations; Holidays Effect; Optimism

1. INTRODUCTION

Prior literature documents optimistic bias in analyst recommendations (Lin and McNichols, 1998; Barber et al., 2007; Lai and Teo, 2008). Jegadeesh et al. (2004), for example, report that average analyst recommendation is close to a Buy recommendation; the same had been illustrated by Satt (2015). They also show that Underperform or Sell recommendations make up less than five percent of all recommendations, showing that analysts are reluctant to issue negative recommendations. In another related study, Jegadeesh and Kim (2006) document similar findings by reporting that almost half of analyst recommendations are either Strong Buy or Buy in the G7 countries. They also show that unfavorable recommendations (Underperform or Sell) constitute less than fifteen percent of total recommendations. Prior literature identifies numerous reasons behind why analyst recommendations are skewed towards favorable recommendations (Das et al., 1998; Lin and McNichols, 1998; O'Brien et al., 2005). Most of these reasons are related to certain features of the work environment that encourages analysts to issue favorable recommendations.2 Jackson (2005), for instance, argues that the pressure to generate brokerage commissions can induce analysts to issue optimistic recommendations.3 Given that favorable recommendations generate more brokerage commissions than unfavorable recommendations, analysts are under considerable pressure from their employers to issue optimistic recommendations (Eames et al., 2002).4

Analysts, however, recognize that they have to optimize between optimistic biases in their recommendations and their reputation as an unbiased investment advisor. Hong and Kubic (2003) find that accurate analysts have favorable career outcomes. They show that accurate analysts tend to move up to a high status within their brokerage houses or move to large and prestigious brokerage houses. This paper argues that interaction between the need to generate brokerage commissions and accuracy concerns may result in a situation where analysts are tempted to issue relatively more favorable (optimistic) recommendations on post-holidays and relatively less favorable (pessimistic) recommendations on pre-holidays. We call this situation as *Holidays Effect* in analyst recommendations. Our assertion that Holidays' effect may also exist in analyst recommendations depends on prior literature that documents day-of-the-week effect in returns (French, 1980; Lakonishok and Smidt, 1988; Solnik and Bousquet, 1990; Barone,

[2] Lin and McNichols (1998) note that investment banking pressures result in optimistic bias in analyst recommendations. They show that lead underwriter analysts issue more favorable recommendations than unaffiliated analysts. McNichols and O'Brien (1997) argue that analysts are tempted to be optimistic because firms select those underwriters that are more optimistic.

[3] Analyst's compensation, partly, depends on trade generated by him.

[4] A competing strand of literature associates behavioral biases with optimistic bias in analyst recommendations. Cornell (2001), for example, finds that analysts are reluctant to recognize negative changes in corporate fundamentals. He argues that cognitive processing biases affect formation of analyst recommendations. Similarly, Abarbanell and Lehavy (2003) consider cognitive obstacles as the main reason behind analyst's reluctance to downgrade his opinion.

1990).[5] This strand of literature documents that stock returns tend to be the least on Post-holidays and the most on Pre-holidays. In other words, day-of-the-week effect in returns implies that returns, generally, trend upwards during the week – returns are the lowest on Post-holidays and the highest on Pre-holidays.[6] If this is true, it may be in the best interest of analysts to issue most of their favorable recommendations on Post-holidays. Issuance of more optimistic recommendations on Post-holidays serves two goals. First, it may satisfy the pressures from analysts' employers regarding issuance of optimistic recommendations. Second, analysts may hope to increase the performance, at least the short-term performance, of optimistically biased recommendations by benefiting from upward trend in stock prices. Holiday's effect implies upward trend in stock prices during the week of holidays. Consequently, analysts can better optimize between pressure to generate brokerage commissions and their reputational concerns by issuing bulk of optimistic recommendations on Pre-holidays. Furthermore, we also argue that, if Holidays effect exists in returns, analysts may be tempted to wait till the end of the holidays' week to issue pessimistic (less optimistic) recommendations. Holiday's effect implies downward trend in stock prices over the week of holidays – returns are the highest on Pre-holidays and the lowest of Post-holidays. Therefore, performance of pessimistic (less optimistic) recommendations may improve if they are issued on Post-holidays.

Consistent with our arguments, this paper documents that holiday's effect exists in analyst recommendations. Using analyst recommendations data from ten European stock markets (Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden), we show that analysts issue overly optimistic recommendations on post-holidays (2 days after), while they issue overly pessimistic recommendations on pre-holidays (2 days before) during the period between 2003 and 2014. These results are robust to alternate measures of optimism and after controlling for various firm-specific characteristics. Given that optimistic (less optimistic) recommendations are synonymous to favorable (unfavorable) recommendations, we also show that likelihood of issuing Strong Buy or Buy recommendation is higher on Pre-holidays and likelihood of issuing Underperform or Sell recommendation is higher on Post-holidays .

Our results, however, also indicate that holidays' effect exists primarily in firms with higher information uncertainty. We argue that reputational concerns are low whenever information uncertainty is high. Therefore, it is relatively easier for analysts to issue optimistically biased recommendations for firms with high information uncertainty. We also show that holidays' effect is more dominant among less experienced analysts. These analysts are more susceptible to pressures from their employers. As a result, they are more likely to issue optimistic recommendations. Experienced analysts, on the other hand, are more independent in a way that they have more skills, stronger networks, and higher expertise. They, therefore, are less likely to issue optimistically biased recommendations. We would like to mention that, to the best of our knowledge, this is the first evidence regarding the existence of holidays' effect in analyst recommendations.

The remainder of the paper is structured as follows: Section 2 summarizes the data. Section 3 presents assessment of our arguments, and Section 4 document robustness of our analysis. Section 5 discusses some of the implications of our results and the paper ends with Section 6 where we present conclusions.

2. DATA

This paper aims to document holidays' effect in analyst recommendations. For the purpose of this paper, we include firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden in our analysis. The period of analysis is between 2003 and 2014. We will, briefly, discuss the data in the following sub-sections.

2.1. Analyst recommendations

We obtain analyst recommendations data from the I/B/E/S International history recommendation database. The I/B/E/S International history recommendation database provides a data entry for each recommendation announcement by each analyst. Each observation in the file represents the issuance of a recommendation by a particular analyst for a specific firm. The I/B/E/S converts original text recommendations provided by analysts to its own 5-point rating system. Recommendations in the I/B/E/S database are coded as: 1 = Strong Buy, 2 = Buy, 3 = Hold, 4 = Underperform, 5 = Sell. Recommendations were obtained for 5 trading days putting the holiday in the middle; in other words, our sample include 3 events: Christmas, Halloween and valentine. In every year (from 2003 to 2014) we take the observations of the event, 2 trading days before and 2 trading days after the event. Descriptive statistics for analyst recommendations are reported in Table 1. As is documented in previous literature, our results show that analysts issue fewer unfavorable recommendations (Jegadeesh and Kim, 2006). We report that around 20% of recommendations are Underperform or Sell in our sample, analysts always tend to avoid downgrades in their recommendations, downgrades will lower their reputation and commissions, Satt (2015). Table 1 also shows that most of recommendations are either Strong Buy or Buy. Table 1 show that almost 45% of recommendations are classified as Strong Buy or Buy. We argue that significant divergence between the proportion of favorable (Strong Buy and Buy) and the proportion of unfavorable recommendations (Underperform and Sell) is an outcome of conflict of interests – such as investment banking pressures and desire to generate brokerage commissions – that analysts face in their jobs (Lin and McNichols, 1998; Barber et al., 2007).

[5] Day-of-the-week effect has also been observed in stock market volatility. Kiymaz and Berument (2003), for instance, document that stock markets exhibit the highest volatilities on Pre-holidays. In another related study, Farooq et al. (2013) document the highest volatility on the last trading day of the week and the lowest volatility on the first trading day of the week. In addition to stock markets, day-of-the-week effect is also observed in fixed income markets, foreign exchange markets, and derivatives markets. For example, Corhay et al. (1995), Flannary and Protopapadakis (1988), and Gesser and Poncet (1997) document that futures and foreign exchange markets are subject to day-of-the-week effect.

Table 1. Descriptive statistics for analyst recommendations

Following table documents the number and percentage of each type of recommendation. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden.

Country	Strong Buy	Buy	Hold	Underperform	Sell
Belgium	1434	2543	3423	1423	354
	(15,63%)	(27,71%)	(37,30%)	(15,51%)	(3,86%)
Denmark	1323	2677	3112	1772	688
	(13,82%)	(29,17%)	(33,91%)	(19,31%)	(7,50%)
Finland	2122	5433	3887	1996	887
	(14,81%)	(37,93%)	(27,13%)	(13,93%)	(6,19%)
France	8766	15445	16544	9886	2877
	(16,38%)	(28,86%)	(30,91%)	(18,47%)	(5,38%)
Germany	14334	18799	21002	7459	4312
	(21,75%)	(28,52%)	(31,87%)	(11,32%)	(6,54%)
Italy	4998	5668	11277	4387	1433
	(18,00%)	(20,42%)	(40,62%)	(15,80%)	(5,16%)
Netherlands	4334	7443	8211	3112	1498
	(17,62%)	(30,26%)	(33,38%)	(12,65%)	(6,09%)
Norway	3224	6989	6122	2489	1189
	(16,11%)	(34,92%)	(30,59%)	(12,44%)	(5,94%)
Spain	4889	6112	7009	3676	2334
	(20,35%)	(25,45%)	(29,18%)	(15,30%)	(9,72%)
Sweden	4677	9776	9121	6112	1336
	(15,08%)	(31,51%)	(29,40%)	(19,70%)	(4,31%)
Total	50101	80885	89708	42312	16908
	(17,90%)	(28,90%)	(32,05%)	(15,12%)	(6,04%)

2.2. Recommendation optimism

Optimism (OPT) is defined as the difference between analyst's current recommendation and the last month's consensus recommendation (Lai and Teo, 2008; Farooq and Taouss, 2012). Consensus recommendation is the average of all outstanding recommendations. Consensus recommendation is computed for those firms that have at least five outstanding recommendations. The optimism variable is created in a way that lower values represent higher optimism. Descriptive statistics for recommendation optimism are reported in Table 2. The results show that recommendations issued on Post-holidays have the highest optimism, while recommendations issued on Pre-holidays have the least optimism. We report the lowest mean and median values of optimism on Post-holidays and the highest on Pre-holidays. Table 2 may provide an early indication of the presence of day-of-the-week effect in analyst recommendations.

Table 2. Descriptive statistics for optimism

Following table documents the descriptive statistics for optimism during our sample period on each day. Optimism is the difference between analyst recommendation and last month's consensus recommendation. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden.

Statistics	*J-2*	*J-1*	*Holiday*	*J+1*	*J+2*
Mean	0.1445	0.1257	0.1120	0.1215	0.1021
Median	0.1200	0.0999	0.100	0.1222	0.0833
Standard Deviation	1.3326	1.7693	1.5887	1.1900	1.1122
Total Recommendations	45112	46553	41223	47888	49009

2.3. Control variables

This paper uses following variables as control variables:

- **SIZE:** We define SIZE as log of market capitalization on the day of recommendation. Lai and Teo (2008) argue that size has moderating effect on recommendation optimism. Data for SIZE is obtained from the Datastream.
- **LEVERAGE:** We define LEVERAGE as total debt to total asset ratio. Given that high degree of leverage exposes firm to distress risk, it may have moderating effect on recommendation optimism. Data for LEVERAGE is obtained from the Worldscope.
- **EPS:** This paper defines EPS as earnings per share. Higher earnings attract stock market participants. We argue that higher earnings may lead to higher optimism in recommendations. Data for EPS is obtained from the Worldscope.
- **GROWTH:** We define GROWTH as growth in firm's assets. We argue that firms with high growth attract investors. Greater visibility among investors may induce analysts to issue optimistic recommendations. Data for GROWTH is obtained from the Worldscope.
- **ANALYST:** We define ANALYST as the total number of analysts issuing recommendations for a firm during the year. Lai and Teo (2008) show that the extent of analyst coverage has a moderating effect on recommendation optimism. Data for ANALYST is obtained from the I/B/E/S.
- **EXPERIENCE:** This paper defines EXPERIENCE as the number of years since analyst

first appeared in the I/B/E/S database. We argue that higher experience may make analysts more independent, thereby reducing recommendation optimism. Data for EXPERIENCE is obtained from the I/B/E/S.

- **STD:** We define STD as the dispersion in analyst recommendations. Higher dispersion is associated with higher information uncertainty. Ackert and Athanassakos (1997) argue that analysts tend to be more biased whenever information uncertainty is high. Data for STD is obtained from the I/B/E/S.

3. METHODOLOGY

3.1. Univariate analysis

In this section, we document whether day-of-the-week effect exists in analyst recommendations or not. More specifically, we aim to show whether analysts issue more (or less) optimistic recommendations on certain days. Table 3 documents whether average recommendation optimism (Panel A) or median recommendation optimism (Panel B) differs between different days of the week. Our results show that average recommendation optimism and median recommendation optimism on Pre-holidaysis significantly less than recommendation optimism on other days. For instance, difference between average (median) recommendation optimism on Post-holidays and average (median) recommendation optimism on Pre-holidays is 0.0440 (0.0550). Table 3, Panel A, also shows that average recommendation optimism on Post-holidays is significantly more than average recommendation optimism on other days. For instance, difference between average recommendation optimism on Post-holidays and average recommendation optimism on Thursdays is 0.0236. Our results also show no significant difference between average recommendation optimism on other days – Tuesdays, Wednesdays, and Thursdays.

Table 3. Difference between optimism

Following table documents the difference between optimism on different days. Optimism is the difference between analyst recommendation and last month's consensus recommendation. Panel A document differences in average optimism and Panel B documents differences in median optimism. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

Panel A: Difference between average optimism					
Days	**J-2**	**J-1**	**Holiday**	**J+1**	**J+2**
J-2	-				
J-1	-0.034***	-			
Holiday	-0.0122	0.0605	-		
J+1	-0.055***	-0.0033	-0.0117	-	
J+2	-0.067***	-0.0216**	-0.0122***	-0.0542**	-
Panel B: Difference between median optimism					
Days	**J-2**	**J-1**	**Holiday**	**J+1**	**J+2**
J-2	-				
J-1	-0.045***	-			
Holiday	-0.050*	-0.0299**	-		
J+1	-0.0669	-0.341	-0.345	-	
J+2	-0.077***	-0.020***	-0.056***	-0.068**	-

3.2. Multivariate analysis

We hypothesized that day-of-the-week effect exists in analyst recommendations. In order to test our hypothesis, we estimate a regression with optimism (OPT) as a dependent variable and four dummy variables representing different days of the week. In the following regressions, POST-HOLIDAYS takes the value of 1 if the recommendation is issued on Post-holidays and 0 otherwise, TUESDAY takes the value of 1 if the recommendation is issued on Tuesday and 0 otherwise, THURSDAY takes the value of 1 if the recommendation is issued on Thursday and 0 otherwise, while PRE-HOLIDAYS takes the value of 1 if the recommendation is issued on Pre-holidays and 0 otherwise. As indicated above, we also include SIZE, LEVERAGE, GROWTH, EPS, ANALYST, and EXPERIENCE as control variables. For the purpose of completeness, we also include year dummies (YDUM), industry dummies (IDUM), and country dummies (CDUM) in our regression equations. Our regression equations take the following form:

$$OPT = \alpha + \beta_1(MONDAY) + \beta_2(TUESDAY) + \beta_3(THURSDAY) + \beta_4(FRIDAY) + \sum_{Year} \beta^{Year}(YDUM) + \sum_{Ind} \beta^{Ind}(IDUM) + \sum_{Ctry} \beta^{Ctry}(CDUM) + \varepsilon \quad (1)$$

$$OPT = \alpha + \beta_1(MONDAY) + \beta_2(TUESDAY) + \beta_3(THURSDAY) + \beta_4(FRIDAY) + \beta_5(SIZE) + \sum_{Year} \beta^{Year}(YDUM) + \sum_{Ind} \beta^{Ind}(IDUM) + \sum_{Ctry} \beta^{Ctry}(CDUM) + \varepsilon \quad (2)$$

$$\begin{aligned} OPT = {} & \alpha + \beta_1(MONDAY) + \beta_2(TUESDAY) + \beta_3(THURSDAY) + \beta_4(FRIDAY) + \beta_5(SIZE) + \beta_6(LEVERAGE) + \beta_7(EPS) \\ & + \beta_8(GROWTH) + \beta_9(ANALYST) + \beta_{10}(EXPERIENCE) + \sum_{Year} \beta^{Year}(YDUM) + \sum_{Ind} \beta^{Ind}(IDUM) + \sum_{Ctry} \beta^{Ctry}(CDUM) + \varepsilon \end{aligned} \quad (3)$$

The results of our analysis are reported in Table 4. Our results indicate the presence of day-of-the-week effect in analyst recommendations. We report that recommendations issued on Post-holidays are the most optimistic. We report significantly negative coefficient of POST-HOLIDAYS for all equations. We argue that day-of-the-week effect in analyst recommendations is an outcome of day-of-the-week effect in returns. To the extent that analysts have to optimize between optimistic biases in their recommendations and their reputation as an unbiased investment advisor, it is in their best interest to issue most of their favorable recommendations on Post-holidays. By doing so, they not only accommodate pressures to issue excessive number of optimistic recommendations but also guarantee that short-term returns following favorable recommendations would trend upwards. Our results also show that recommendations issued on Pre-holidays are the least optimistic. We report significantly positive coefficient of PRE-HOLIDAYS for all equations. We argue that by issuing greater proportion of unfavorable recommendations on Pre-holidays, analysts hope that, at least, short-term returns following unfavorable recommendations would trend downwards.

Table 4. Day-of-the-week effect and optimism in analyst recommendations

Following table uses Equation (1), Equation (2), and Equation (3) to document the relationship between recommendation optimism and 2 days before and after the holiday. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	Equation (1)	*Equation (2)*	*Equation (3)*
J-2	-0.0233**	-0.0554**	-0.0654**
J-1	-0.0034	-0.0044	-0.0066
J+1	0.0323	0.0134	-0.0012
J+2	0.0544***	0.0223***	0.0266**
SIZE		0.0055***	0.01344*
LEVERAGE			-0.0044**
EPS			-0.0005
GROWTH			-0.0067***
ANALYST			0.0007
EXPERIENCE			-0.0088***
STD			-0.5688***
Industry Dummies	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes
No. of Observations	233451	197898	134553
F-value	19.45	25.22	34.11
Adjusted R-square	0.05	0.04	0.022

4. ROBUSTNESS CHECKS

4.1. Day-of-the-week effect and optimism in analyst recommendations (alternate measure)

As a second robustness check, we use alternate measure of optimism and re-estimate Equation (1), Equation (2), and Equation (3). We define alternate measure of optimism as the difference between analyst's current recommendation and the median of last month's outstanding recommendations. The results are reported in Table 5. The results of our analysis are qualitatively the same as those reported in Table 4. We show significantly higher optimism in recommendations issued on Post-holidays and significantly lower optimism in recommendations issued on Pre-holidays. We report significantly negative coefficient of POST-HOLIDAYS and significantly positive coefficient of PRE-HOLIDAYS for all equations.

4.2. Day-of-the-week effect and optimism in analyst recommendations (quantile regression approach)

Our analysis implies that no matter what point on the conditional distribution is analyzed, the estimates of the relationship between day of the week and optimism in analyst recommendations are the same, testing for linearity in specific and the LINE assumptions in general, we ended up with the conclusion that the linearity assumption holds. To test the empirical validity of this restrictive assumption and to document day-of-the-week at different points of conditional distribution of optimism in analyst recommendations, a quantile regression is applied at five quantiles (namely 0.10, 0.30, 0.50, 0.70, and 0.90). The results of our analysis are reported in Table 6. The quantile regression results indicate that the relationship between optimism and recommendations issued on Post-holidays hold only in lower quantiles. We report significantly negative coefficient of POST-HOLIDAYS for 10^{th}, 30^{th}, and 50^{th} quantile. For the remaining two quantiles (70^{th} and 90^{th}), we report insignificant coefficient of POST-HOLIDAYS. Comparing our results with Table 4 indicate that OLS regression underestimate this relationship at 10^{th} and 30^{th} quantile. We also show that the relationship between optimism and recommendations issued on Pre-holidays hold only in higher quantiles. We report significantly positive coefficient of PRE-HOLIDAYS for 50^{th}, 70^{th}, and 90^{th} quantile. For the remaining two quantiles (10^{th} and 30^{th}), we report insignificant coefficient of PRE-HOLIDAYS. Comparing our results with Table 4 indicate that OLS regression overestimate this relationship at 50^{th}, 70^{th}, and 90^{th} quantile.

Table 5. Day-of-the-week effect and optimism in analyst recommendations (alternate measure)

Following table uses Equation (1), Equation (2), and Equation (3) to document the relationship between recommendation optimism (using an alternate measure) and 2 days before and after the holiday. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	Equation (1)	*Equation (2)*	*Equation (3)*
J-2	-0.0133**	-0.0154**	-0.0122***
J-1	-0.0066	-0.0044	-0.0066
J+1	0.0044	0.0034	-0.0008
J+2	0.0221***	0.0129***	0.0167*
SIZE		0.0023	0.0122***
LEVERAGE			-0.0000**
EPS			0.0004
GROWTH			-0.0011***
ANALYST			-0.0056***
EXPERIENCE			-0.0055***
STD			-0.1778***
Industry Dummies	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes
No. of Observations	233344	197123	134211
F-value	21.22	16.65	23.33
Adjusted R-square	0.04	0.01	0.05

Table 6. Day-of-the-week effect and optimism in analyst recommendations (quantile regression approach)

Following table uses quantile regression and Equation (3) to document the relationship between recommendation optimism and 2 days before and after the holiday. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	0.10	*0.30*	*0.50*	*0.70*	*0.90*
J-2	-0.0665***	-0.0343***	-0.0332*	-0.0023	-0.0055
J-1	-0.0233	-0.0033	0.0033	0.0023	-0.0126
J+1	-0.0125***	-0.0122	-0.0067	0.0233	0.0166
J+2	-0.0277	0.0077	0.0234**	0.0233**	0.0566***
SIZE	0.0557***	0.0466***	-0.0005*	-0.0087**	-0.0878***
LEVERAGE	-0.0066	-0.0045***	-0.0008	-0.0003**	0.0022
EPS	0.0008	-0.0007	-0.0099*	-0.0029***	-0.0046
GROWTH	-0.0089***	-0.0021***	-0.0012***	-0.01989***	-0.0056***
ANALYST	-0.0055**	-0.0033	0.0012**	-0.01778	0.0077***
EXPERIENCE	-0.0034**	-0.0067**	-0.0055***	-0.01445***	-0.0089***
STD	-0.5233***	-0.4567**	-0.2321***	-0.7887***	-0.2334***
Industry Dummies	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes	Yes
No. of Observations	199872	199872	199872	199872	199872
F-value					
Adjusted R-square	0.033	0.037	0.009	0.022	0.019

4.3 Day-of-the-week effect and optimism in analyst recommendations (level of recommendations)

As a last robustness check, we replace optimism measure with the level of recommendations.[7] Given that level of recommendation is an ordinal variable, we use ordered probit regressions to estimate Equation (1), Equation (2), and Equation (3).[8] The results of our analysis are reported in Table 7. Our results show that there is significantly higher likelihood that analysts issue unfavorable recommendations (Underperform and Sell) on Pre-holidays. We report significantly positive coefficient of PRE-HOLIDAYS for all equations. Furthermore, our results from Equation (6) – the most comprehensive equation – indicate that there is significantly higher likelihood that analysts issue favorable recommendations (Strong Buy and Buy) on Post-holidays. We report significantly positive coefficient of POST-HOLIDAYS.

[7] Our results have shown that recommendations issued on Post-holidays are the most optimistic and recommendations issued on Pre-holidays are the least optimistic. Therefore, it is possible that most of favorable recommendations (Strong Buy and Buy) are issued on Post-holidays and most of unfavorable recommendations (Underperform and Sell) are issued on Pre-holidays.

[8] Level of recommendation is coded as follows: 1 for Strong Buy, 2 for Buy, 3 for Hold, 4 for Underperform, and 5 for Sell.

Table 7. Day-of-the-week effect and optimism in analyst recommendations (level of recommendations)

Following table uses Equation (1), Equation (2), and Equation (3) to document the relationship between level of recommendations and 2 days before and after the holiday. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	Equation (4)	*Equation (5)*	*Equation (6)*
J-2	-0.0055	-0.0089	-0.0334**
J-1	0.0016	0.0087	-0.0036
J+1	-0.0007	-0.0033	-0.0099
J+2	0.0670***	0.0334***	0.0998***
SIZE		-0.0554***	-0.0445***
LEVERAGE			0.0009***
EPS			-0.0044***
GROWTH			-0.0055***
ANALYST			0.0198***
EXPERIENCE			-0.0077***
STD			0.2343***
Industry Dummies	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes
No. of Observations	197721	193988	167933
Wald Chi2	2546.33	2334.56	3421.23
Pseudo R-square	0.03	0.03	0.09

5. DISCUSSION OF RESULTS

5.1 Information uncertainty and day-of-the-week effect

Prior literature documents that behavioral biases are prevalent in stocks with higher uncertainty. Ackert and Athanassakos (1997) argue that analysts tend to be more biased whenever information uncertainty is high. In more uncertain information environment, analysts are less concerned about their reputation. Consequently, it is possible that day-of-the-week effect is less pronounced for firms with more certain information environment. In order to address these concerns, we divide our sample into two groups – first sub-sample comprising of firms with above-average dispersion in analyst recommendations and second sub-sample consisting of firms with below-average dispersion in analyst recommendations – and re-estimate Equation (3) for both sub-samples. The results of our analysis are reported in Table 8. Our results show that day-of-the-week effect is missing in firms with higher information certainty. We report insignificant coefficients of POST-HOLIDAYS and PRE-HOLIDAYS for a sub-sample with below average dispersion in analyst recommendations. Table 8 shows that day-of-the-week effect is only present in firms with higher information uncertainty. We report significant coefficients of POST-HOLIDAYS and PRE-HOLIDAYS for this sub-sample. Consistent with Ackert and Athanassakos (1997), we argue that behavioral biases are more pronounced whenever information uncertainty is high.

Table 8. Information uncertainty and day-of-the-week effect

Following table uses Equation (3) to document the effect of information uncertainty on holidays' effect. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	Low Information Uncertainty	**High Information Uncertainty**
J-2	-0.0011**	-0.0334**
J-1	-0.0334*	0.0566**
J+1	-0.0088**	0.0033*
J+2	0.0144*	0.0876***
SIZE	0.0083**	0.0099*
LEVERAGE	-0.0015**	-0.0033**
EPS	-0.0026	-0.0005*
GROWTH	-0.0067***	-0.0033***
ANALYST	0.0044	0.0009*
EXPERIENCE	-0.0088***	-0.0066***
STD	-0.5654***	-0.4566***
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Country Dummies	Yes	Yes
No. of Observations	125565	143386
F-value	19.51	19.78
Adjusted R-square	0.067	0.081

5.2. Analyst experience and day-of-the-week effect

There may be concerns that our results are confined to those analysts that have less experience. Less experience may make analysts more vulnerable to pressures of their employers. This is in contrast to analysts with high experience who may be less vulnerable to pressures of their employers due to their skills and networks. In order to address these concerns, we divide our sample into two groups – first sub-sample comprising of analysts with above average experience and second sub-sample consisting of firms with below average experience. We re-estimate Equation (3) for both sub-samples. The results of our analysis are reported in Table 9. Our results show that high optimism is prevalent among analysts with low experience. We report significantly negative coefficient of POST-HOLIDAYS for recommendations issued by less experienced analysts. We argue that it is hard for less experienced analysts to resist pressures from their employers. Therefore, they are more likely to issue optimistic recommendations. We also report that analysts with high experience issue less optimistic recommendations on Pre-holidays. We report significantly positive coefficient of PRE-HOLIDAYS for recommendations issued by more experienced analysts. We argue that analysts with high experience may have higher skills and better networks. Therefore, they can resist any pressure from their employers to issue optimistic recommendations.

Table 9. Analyst experience and day-of-the-week effect

Following table uses Equation (3) to document the effect of analyst experience on holidays' effect. The sample period is between 2003 and 2014. The sample consists of firms listed in Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden. 1% significance is represented by ***, 5% significance by **, and 10% significance by *.

	Low Analyst Experience	*High Analyst Experience*
J-2	-0.0887***	0.0023
J-1	-0.0334**	0.0223
J+1	-0.0657**	0.0938
J+2	0.0045	0.0566***
SIZE	0.0055	0.0088*
LEVERAGE	-0.0056	-0.0045***
EPS	-0.0006*	-0.0055
GROWTH	-0.0056***	-0.0034***
ANALYST	0.0022	0.0088
EXPERIENCE	0.0005***	-0.0045***
STD	-0.5665***	-0.4554***
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Country Dummies	Yes	Yes
No. of Observations	134445	113667
F-value	23.88	33.16
Adjusted R-square	0.033	0.023

6. CONCLUSIONS

This paper examines whether day-of-the-week effect exists in analyst recommendations or not in Europe (Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, and Sweden) during the period between 2000 and 2011. Our results show that analysts issue overly optimistic recommendations on Post-holidays and overly pessimistic recommendations on Pre-holidays. Our results are robust to alternate measures of optimism and after controlling for various firm-specific characteristics. Our results are consistent with prior literature on day-of-the-week effect that documents upward trend in stock prices during the week and downward trend in stock prices over the weekend. We argue that by issuing bulk of favorable (optimistic) recommendations on Post-holidays, analysts may hope to benefit from upward trend in stock prices. Similarly, by issuing bulk of unfavorable (optimistic) recommendations on Pre-holidays, analysts may hope to benefit from downward trend in stock prices. Moreover, we also show that our results are more pronounced in firms with higher information uncertainty and among less experienced analysts. For future research, we propose creating buy-and-hold portfolios based on recommendations issued on each day of the week and computing their performance.

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ENVIRONMENTAL MANAGEMENT ACCOUNTING PRACTICES: MAJOR CONTROL ISSUES

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Abstract

The use of environmental management accounting (EMA) remains debated in South Africa and the literature reveals that EMA is still at an infancy stage in the emerging economies, including South Africa. Currently, there is limited existing research on environmental management accounting practices available for use by the hotel sector in South Africa. The overall aim of this study was to investigate and describe the use of the environmental management accounting tools by the hotel sector in the 3-5 star categories in KwaZulu-Natal. The research was an exploratory study and qualitative in nature using a single case study with embedded units approach. It is envisaged that study will bridge the gap that exists in South Africa as far as environmental management accounting is concerned and it will also make the provision of meaningful results for policy decision making by the relevant stakeholders in the hotel industry. Moreover, it established factors that drive and/or hinder the implementation of EMA tools that would control and manage environmental costs and their root causes.

Keywords: Environmental Management Accounting Tools, Major Environmental Costs, Environmental Reporting, Drivers And Barriers, 3-5 Star Hotels

1. INTRODUCTION

Many studies indicate that environmental issues and concerns are world-wide phenomena (Seetharaman, Mohamed & Saravanan, 2007); Mőhr-Swart, Coetzee & Blignaut, 2008); and Jones, 2010). At the current moment, various eminent environmental issues are threatening the future of humankind. These include the over-consumption of non-renewable resources and global air pollution (Chan, 2008). In the hotel industry, the environmental concerns include among other things, recycling of waste, waste management, clean air, energy and water conservation, environmental health, maintenance of permits such as building permits and compliance with legislation, purchasing policy and environmental education (Mensah, 2006). According to Chan & Hawkins (2012) there is a wide interest globally centred on these environmental problems and the moral, ethical, social, and political arguments for taking action on these issues are becoming more intense and an increasing number of stakeholders are interested to participate in order to address this phenomena. Research establishes that environmental management systems are important means for businesses to manage their environmental impacts but most previous studies were conducted in industries such as manufacturing, electronics, chemicals, construction and farming; only a few environmental management system investigations have been conducted in the hospitality and tourism industries (Chan & Hawkins, 2012). The South African hotel sector with specific reference to KZN also needs more investigation. Therefore, this study intended to investigate more on this problem and recommend the solutions.

1.2. Problem statement

The use of environmental management accounting (EMA) remains debated in South Africa (Mőhr-Swart, Coetzee, & Blignaut, 2008). Farouk, Cherain, & Jacob (2012) support this premise by stating that it might be because EMA is still at an infancy stage in the emerging economies, including South Africa. It appears that there is limited existing research on environmental management applications available for use by the South African hotel sector (Rogerson & Sims, 2012). Literature indicates that traditional management accounting systems and attempts normally fall short in providing adequate or appropriate data to be used in the administration of environment, also for management of costs related to the management of that environment (Vasile & Man, 2012). Companies considerably misjudge both the costs and benefits of comprehensive environmental management (Christ & Burrit, 2013).

1.3. Aim and objectives

Aim

This research's main aim is to examine and describe the practice of the environmental management accounting tools by the hotel sector in the 3-5 star categories in KwaZulu-Natal (KZN)

Objectives

- To identify the environmental management accounting tools used for the reporting of environmental costs by the hotel sector in the 3-5 star category in KZN.
- To determine to what extent the tools of environmental management accounting are used to report environmental costs by the hotel sector in the 3-5 star category in KZN.
- To examine the awareness, knowledge, and experience with regards to environmental management accounting tools by KZN's hotel sector in the 3-5 star category.
- To identify critical factors enabling and limiting the use of environmental management accounting by the hotel sector in the 3-5 star category in KZN.

2. LITERATURE REVIEW

2.1. An Overview Of The Tourism Sector In South Africa

The accommodation sector of South Africa's tourism industry has seen tremendous growth since the country's re-entry into the global tourism economy (Hoogendoorn, Grant, Fitchett, 2015 and Rogerson, 2013). According to the Annual Report 2013/2014 by the National Department of Tourism (NDT, 2015) the World Travel and Tourism Council estimated that South Africa's travel and tourism sector contributed approximately R102 billion ($10.4 billion) to the country's economy, directly supporting an estimated 620,000 jobs in 2012. An upward trajectory in tourism numbers is evident for the period 1990 – 2010. As a consequence of pressures for boycotts of South Africa and the subsequent formal imposition of international sanctions, the country's tourism economy stagnated throughout the 1980s. During this phase of 'stagnation' in international tourism, investment in new product development was low and driven by an industry focus upon the white South African domestic tourist. Under late apartheid, the years of political turmoil witnessed a national State of Emergency which further undermined possibilities for developing international tourism. In an expanding international tourism economy, South Africa was avoided by European and North American travellers (Rogerson & Visser, as quoted by Rogerson, 2013). Figure 1 shows famous places that are visited in South Africa.

According to South African Tourism (STA, 2015) the country is endowed with a well-established tourism industry with an exciting sector of emerging entrepreneurs. The country is strong on adventure, sport, nature and wildlife, and is a pioneer and global leader in responsible tourism. The country's top 10 cities where most of the country's tourism space is dispersed are: 1) Cape Town; Western Cape; 2) Johannesburg, Gauteng; 3) Durban, KwaZulu-Natal; 4) Pretoria, Gauteng; 5) Port Elizabeth, Eastern Cape; 6) Bloemfontein, Free State; 7) Nelspruit, Mpumalanga; 8) Kimberly, Northern Cape; 9) Polokwane, Limpopo; and 10) Pietermaritzburg, KwaZulu-Natal (STA, 2015).

Figure 1. South Africa tourist map

Source: Safari Co., 2015.

PricewaterhouseCoopers (PWC, 2015) expects the number of available rooms in hotels to increase by 0.7% in 2015 and to average 0.9% compounded annually to 63 600 in 2019 from 60 800 in 2014. Growth, however, will be limited by the imposition in May 2014 of two new requirements needed to obtain a visa. One requirement mandates that foreign visitors must appear in person at a South African consulate to apply for visas to have biometrics taken. A second policy requires that parents and guardians travelling with minors must have an unabridged birth certificate that shows the names of both parents. If a minor is travelling with one parent, an affidavit from the other parent is required granting consent for the trip. The purpose of the latter policy is to stop child trafficking. Tourism industry commentators in South Africa say this has already adversely affected travel from China and India, as potential visitors from these countries may have to travel long distances to a large city to obtain the necessary documentation before travelling to South Africa (PWC, 2015).

2.2. Environmental challenges facing the South African hotel sector

According to Erdogan & Baris (2007) the hotel industry because of the nature of its functions, characteristics, and services, consumes substantial quantities of energy, water, and non-durable products. It has been estimated that most environmental impacts created by the hotel industry can be attributed to site planning and facility management; excessive consumption of local and imported non-durable goods, energy, and water; and emissions into the air, water, and soil. This study investigated the environmental management accounting practices used by the hotel sector and according to Janković & Krivačić (2014) the hotel inputs and outputs concerning the environment cost lies in the use of energy which causes lower atmospheric pollution, lower water consumption that causes less wastewater and less distortion of the hydrological cycle, better use of other productive factors which cause less contamination of soil and less land used for rubbish tips. The major environmental issues and costs there were under investigation were therefore limited to energy, water and waste management as it is indicated above that hotels consume substantial amounts of these factors of production.

2.3. Water challenges in South Africa

According to Erdogan & Baris (2007) the hotel's water consumption depends on the type, standards, and size of the facility, on the services and facilities offered, on the climate and irrigation needs, and on existing water conservation practices. Water and energy management is normally organized in a similar manner in hotels. Most water consumption occurs in hotel rooms, the laundry units, and the kitchen facilities (Erdogan & Baris, 2007). As quoted by Wyngaard & de Lange (2013), Alexander asserts that up to 1499 litres of water may currently be used daily in a single luxury hotel room and hotels may produce food waste of up to 46% of a hotel's total waste, which is clear evidence of the impact on the environment caused by the hospitality industry in this regard". Wyngaard & de Lange (2013) further assert that "South Africa is considered a drought prone country with an arid climate over 69% of its total surface area, which makes it one of the 20 driest countries in the world. Literature reveals that South Africa is facing physical water scarcity with demanded estimated to outstrip supply at the current consumption rates (Gulati, Jacobs, Jooste, Naidoo, & Fakir, 2013). Some parts of the country have witnessed water shedding to address the scourge of water shortages. Water and electricity resources are under the greatest demand in South Africa, and current availability cannot sustain the consumption levels of tourist accommodation (Hoogendoorn et al, 2015).

2.4. Energy crises in South Africa

The country is currently experiencing energy crises. Towards the end 2007, the country experienced the widespread rolling blackouts as supply could not meet the demand. Even though rolling black outs or load shedding, as it is referred to, were suspended in May 2008, it has been re-introduced since November 2014. Blackouts are understood to implicate the wider sub-Saharan region, which depends on Eskom, South African's main energy utility company, for more than 60% of its electricity (Rafey & Sovacool, 2011). The government of South Africa asserts that the energy constraints are not a permanent crises for the country (National Department of Energy, (NDE), 2015).

2.5. Waste management challenges

Janković & Krivačić (2014) reveal that the consumption of energy from non-renewable resources, the consumption of drinking water, as well as the amount of solid waste and waste waters are the biggest generators of environmental costs in hotels. The main environmental waste related issues emanate from food processing activities include high water consumption, the discharge of high strength effluent and the consumption of energy (Massoud, Fayad, El-Fadel, and Kamle, 2010). It has been stated above that approximately 1499 litres of water may currently be used daily in a single luxury hotel room and hotels may produce food waste of up to 46% of a hotel's total waste. This is a serious concern for the environment.

3. ENVIRONMENTAL REPORTING IN THE HOTEL SECTOR

Various studies have been conducted in environmental management issues related to hotel operations in the areas of corporate business practice and policy, hospitality issues, and hotel operations. Literature reveals that many hotels have adopted a formal environmental management system (EMS) for the sake of the environment, for economic reasons, and/or to achieve a positive image (Chan & Hawkins, 2010). According to Chan (2008) many hotels are still undecided about adopting EMS. Erdogan & Baris (2007) add that in as much as there has been numerous studies of the environmental protection practices of hotels, the majority has focused on large hotels catering to the demands of mass tourism on seashores and in popular resort areas.

3.1. Environmental management systems (EMS)

An environmental management system can be described as a methodology through which organizations operate in a structured manner in order to ensure protection of the environment (de Oliveira, Serra & Salgado, 2010). In other words, organisations define the impacts of their activities and then propose actions to reduce them. The ISO 14001 process standard is one of several structures within which a facility may develop an EMS (Massoud et al., 2010). Chan & Hawkins (2012) reveal that ISO EMS has become the preferred approach to managing the environmental aspects of a company's operations, as it depends less on government regulations and more on voluntary, proactive efforts within the organisation.

3.2. Environmental Management Accounting

Burritt & Saka (2006) define Environmental Management Accounting (EMA) as the identification, collection, analysis and use of two types of information for internal decision making: i) physical information on the use, flows and destinies of energy, water and materials (including wastes) and ii) monetary information on environment-related costs, earnings and savings. According to De Beer & Friend (2006) environmental management accounting is an innovative sustainability initiative. Coupled to the various standardised procedures and practices for effective environmental management, for example, ISO 14000 and Integrated Environmental Management Systems (IEMS), it defines the environmental management frameworks that exist at present that can assist companies in managing, measuring and improving the environmental aspects of their operations (Jones, 2010).

Conventional management accounting systems and practices often do not provide sufficient, sufficiently accurate, information for environmental management and environment-related cost management (Vasile & Man, 2012). As a result, many organisations significantly underestimate both the costs and benefits of sound environmental management (Jasch, 2003). To fill in this gap, recently the emerging field of Environmental Management Accounting has been receiving increasing attention. EMA provides a pragmatic response to criticism that conventional management accounting has failed in its ability to provide explicit consideration of environmental issues with environmental costs frequently 'hidden' in general overhead accounts and potential environmental benefits often downplayed or ignored (Jasch, 2003 and Christ & Burritt, 2013). This term is taken to mean managing environmental and financial performance through the development and implementation of appropriate accounting systems and practices. EMA incorporates a number of techniques and tools designed to assist organisations in recognising and managing their environmental impacts. These tools include, but are not limited to: environmental cost accounting; full cost accounting; life-cycle costing; environmental life-cycle budgeting; environmental capital investment appraisal; total quality environmental management; and material and energy flow accounting (Christ & Burritt, 2013).

4. RESEARCH METHODOLOGY

Qualitative case study research method was chosen in this study. According to Burritt and Saka (2006) a case study can provide rich descriptions, explorations and explanations of the phenomena being studied, and are of particular use where little prior study has been undertaken. The selected case is that of a hotel management company (for confidentiality purposes will be referred to as ABC Hotel Management Group), managing about 11 hotels and lodges in KwaZulu-Natal. The environmental management challenges faced by these establishments are universal. Therefore a single case study with embedded unis is much suitable for this study as generalisations would be possible (Baxter & Jack (2008). A single case study with embedded units was also chosen because this is a critical, unique and revelatory case and the researcher had access to the case previously inaccessible to empirical research (Chan & Hawkins, 2012).

In-depth interviews were used as the primary source of data collection, using semi-structured questions. Furthermore, additional documents were analysed. These included the hotels' Group Energy Profile Analysis programme (GEPA), Building Management System (BMS), financial statements, policies and the group websites together with their individual hotel websites. Judgement sampling was used as the researcher selected sample members to conform to some criterion. Only 3 hotels within ABC Hotel Management Group met the selection criterion. The hotel had to have an already developed environmental management system. Therefore, it had to have a Green Leaf Eco Standard certification and/or Fair Trade Tourism certification. The sample consisted of hotel employees who occupy certain positions of responsibility within the hotels. Data collection took form of semi structured/in-depth interviews and these participants provided relevant information because they are hands on in the area that was investigated, that is they either report on the environmental impacts caused by the hotel sector or perform activities that contribute to the environmental costs made by the hotel sector. As both management accounting and environmental management are of special interest and concern to this study, participants from the finance department, resources/general management division, cleaning department and maintenance department of the targeted hotel were required to participate. The group engineer and three senior staff members from the targeted hotels participated. Senior staff members consisted of the general manager, financial manager, and maintenance manager. Thematic coding was used to categorise findings from the hotel being investigated.

The interview questions were structured such that they address the research objectives and questions for this study and were categorised into themes as depicted in Table 1:

Table 1. Themes and interview questions

Themes	*Objectives*	*Interview questions*
1. EMA practices within the hotel sector and the extent to which they are used.	• To identify the environmental management accounting tools used for the reporting of environmental costs by the hotel sector in the 3-5 star category in KwaZulu-Natal. • To determine to what extent the tools of environmental management accounting are used to report environmental costs by the hotel sector in the 3-5 star category in KZN.	• What are the hotel's main environmental challenges? • What has the hotel already done about the challenges? (Please mention recent projects.) • Does the hotel have any form of environmental reporting? If yes, what is reported? Is it including the major environmental costs? At what level are the major environmental costs reported (if any)?
2. Awareness, knowledge and experience with regards to EMA tools	• To examine the awareness, knowledge, and experience with regards to environmental management accounting tools by KZN's hotel sector in the 3-5 star category.	• Do you think it should be an important issue for hotels to control their major environmental costs? Is it an important issue for the hotel now? • Have you ever requested any environmental cost information from accounting, or environmental management related administrative divisions? If yes, what is the purpose of requesting such information? If not, why not?
3. Internal and external factors affecting the use of EMA tools.	• To identify critical factors enabling and limiting the use of environmental management accounting by the hotel sector in the 3-5 star category in KZN.	• Do you think the hotel has provided enough incentives to motivate general managers or administrative divisions to control, or reduce environmental costs? • Are any external pressures forcing the hotel to account for any of its impacts on the environment? Who imposes the pressure? How does the hotel react to the pressure and what are the actions taken?

5. RESEARCH FINDINGS

This section provides findings for the selected case with its embedded units. A comparison was made amongst these hotels and presented as follows:

Theme 1: EMA practices within the hotel sector and the extent to which they are used.

Table 2. Environmental management challenges

Question	*ABC Hotel Group*	*Hotel A*	*Hotel B*	*Hotel C*
1. What are the hotel's main environmental challenges?	Regulation, Data accuracy, Capital budget, Understanding data.	Energy consumption, Lighting infrastructure (Some lights are shut down).	Energy efficiency	Energy consumption (Lights are constantly switched on, Water consumption and waste management (separation of wet and dry waste).

Table 2 shows that all the hotels agree that energy consumption is the main environmental challenge, whilst the group engineer disputes data accuracy. Hotel C points out that their environmental challenges were not only energy consumption and efficiency, they are also concerned about water consumption and waste management, which involves the separation of water into wet and dry waste. This is line with what the literature suggests that energy consumption, water consumption and waste management are the main environmental challenges for the hotel. However, the group engineer finds regulation, capital budget and the ability to understand data as challenges faced by the hotel group.

Table 3. What has been done to address challenges?

Question	*ABC Hotel Group*	*Hotel A*	*Hotel B*	*Hotel C*
2. What has the hotel already done about the challenges? (Please mention recent projects.)	Engage in energy efficiency projects and water management. Installing Group Energy Profile Analysis (GEPA).	Installation of Building Management System (BMS) to monitor and control energy usage. Shut down some of the lights.	Installation of LED lights, Building of a boiler room with 8 pumps. Analysis of tariffs to evaluate energy consumption in units and convert it into monetary value. Installation of BMS	Reduction of geyser temperatures. Adjustment of water flow in the toilets and showers. Installation of LED lights No BMS installed.

In table 3, the informants from the group and its embedded units, were positive about what has been done already to address their environmental challenges even though different interventions have been implemented to cater for their environmental challenges. The group engineer asserted that the group have engaged in energy efficiency projects and thus installing a Group Energy Profile Analysis in all 3 hotels. Hotel A and B installed a Building Management System to monitor and control energy consumption. This intervention is yet to be implemented by hotel C.

Table 4. Environmental reporting and major environmental costs

Question	*Group Engineer*	*Hotel A*	*Hotel B*	*Hotel C*
3. Does the hotel have any form of environmental reporting? If yes, what is reported? Is it including the major environmental costs? At what level are the major environmental costs reported (if any)?	Yes. Water, energy and occupancy including conferencing, bed nights and room nights sold.	Yes. Water and energy consumption reported monthly through Group Energy Profile Analysis (GEPA). Major costs included (Yes) Reported across all departments	Yes. Water, energy and waste are reporting in line to the Green Leaf (GL) standard and subject to GL audit All major costs included and reported monthly across all departments.	Yes. Energy, water and waste. All major costs are included and reported monthly across all departments within the hotel.

Participants were asked in table 4 if the hotel has any form of environmental reporting and all of them respondent positively. The major environmental costs that are reported by the hotels are water, energy, and waste. These costs are reported monthly and are in line with those that were mentioned by the group engineer. Hotel A, however, does not seem to report its waste management costs.

Theme 2: Awareness, knowledge and experience with regards to EMA tools.

Table 5. The control of environmental costs

Question	*Group Engineer*	*Hotel A*	*Hotel B*	*Hotel C*
1. Do you think it should be an important issue for hotels to control their major environmental costs? Is it an important issue for the hotel now?	Yes. Yes.	Yes. Yes.	Yes. Yes.	Yes. Yes.

All informants were in absolute agreement to the question asked in table 5. The hotels find it important that they control their major environmental costs. The interventions in place as per the discussion above are indicative of the fact that the control of the hotel's major environmental costs is an important issue even currently.

Table 6. The request of environmental cost information

Question	*Group Engineer*	*Hotel A*	*Hotel B*	*Hotel C*
2. Have you ever requested any environmental cost information from accounting, or environmental management related administrative divisions? If yes, what is the purpose of requesting such information? If not, why not?	Yes. Benchmarking and monitoring.	Yes. Monthly, for comparison analysis and benchmarking	Yes. Budgetary reasons, monitoring and control.	Yes. Monthly, for monitoring and reporting. The maintenance manager has never requested any of the environmental information as he finds it not relevant for him.

There is a general positive response from all the informants on the questions asked in Table 6. The participants in their respective positions responded that they have requested environmental cost information mainly for monitoring, control and benchmarking. The maintenance manager finds environmental cost information not relevant for him to use and as such he has never requested it.

Internal and external factors affecting the use of EMA tools.

Table 7. Environmental cost reduction incentives

Question	*Group Engineer*	*Hotel A*	*Hotel B*	*Hotel C*
1. Do you think the hotel has provided enough incentives to motivate general managers or administrative divisions to control, or reduce environmental costs?	No incentives but directives.	No	Not necessarily expected but part of the culture to manage and reduce environmental costs	Yes. Part of the culture adopted from Green Leaf.

Table 7 provides mixed responses as not participants were positive about the question which related to the incentives provided to reduce environmental costs. Hotel A was in total disagreement to the question while Hotel B and the group engineer were not much sure about it. Hotel A was totally positive to the question.

Table 8. External factors forcing the hotel to account for its environmental impacts

Question	*Group Engineer*	*Hotel A*	*Hotel B*	*Hotel C*
9. Are any external pressures forcing the hotel to account for any of its impacts on the environment? Who imposes the pressure? How does the hotel react to the pressure and what are the actions taken?	Yes. "Foreign markets" (Tourists). The hotel assures its foreign markets about their commitments to reducing the hotels' impact on the environment.	No. N/A N/A	Yes. International visitors. The hotel's commitment to sustainable operations is disclosed in its website.	Yes. Occasionally from government but not enforced. The MM responded that there are no external pressures. Information about the hotel's commitment to minimising environmental impact is disclosed in guest cards but still needs to be updated on the website.

Table 8 illustrates that the hotel management was partly divided about the external pressures forcing the hotels to account for any of their impacts on the environment. The group engineer together with the management of hotel B agreed that there are pressures. Hotel A's management was in complete disagreement to the question together with the maintenance manager of hotel C, whilst the rest of hotel C's management was not quite sure. Mainly international visitors are said to be the ones contributing to the external forces.

6. LIMITATIONS

This study was limited to hotels within the province of KwaZulu-Natal using a single case study with embedded units approach. Generalisation should be exercised with care in terms of the findings being applicable to all hotels in South Africa. It may add value to use multiple case studies in order to increase rigour of the analysis and to compliment this study.

7. IMPLICATIONS

EMA tools used by the hotel industry remain arguably unknown in South African. This is due to the fact that limited investigation has been done in this area. This study contributes to the identification and critical evaluation of the EMA tools used by hotels based on the experiences applied by ABC Hotel Management Group. Furthermore, internal and external factors impeding the implementation of EMA tools are identified.

8. RECOMMENDATIONS

8.1. Recommendations for ABC Hotel Management Group

It is evident from the findings that the group has implemented the environmental management systems to reduce its environmental costs. The study investigated only 3 of 11 hotels managed by the group, which is indicative of the fact that the hotel is at an infancy stage in terms of implementing these systems. It is recommended that the group appoints a group environmental officer who will assist in tracing and tracking environmental costs incurred by the hotels and establish the activities performed that results in these costs being incurred. The group is encouraged to conduct workshops for its hotel management and all the decision makers to create awareness about systems that are used in reducing and managing environmental costs. Uniformity and consistency is also recommended in the application of the EMA tools across all hotels in order to maintain order and facilitate the comparability of data and to improve monitoring and controlling.

8.2. Recommendations for future research

A longitudinal case study approach can be used to identify and evaluate EMA tools used by the hotel sector. This type of study would provider a much richer and more detailed evaluation of the EMA tools used by the hotel sector. This approach can assist in determining the extent at which these tools are used and how effective are they in reducing and controlling environmental costs and how are they reported. This study used a qualitative approach and therefore a quantitative method is recommended to test the relationship between various variables.

9. CONCLUSION

The study found that the hotel group is aware of the environmental challenges and these include energy and water consumption and waste management. As such, the group developed a GEPA system to track, trace, allocate and monitor its major environmental costs. The system is linked with all the hotels managed by the group. Some of the hotels have implemented BMS to monitor and control energy and water consumption. This is linked to the GEPA system. Among the three studied hotels, it was discovered that the implementation of EMA tools is not consistent across the board and not all hotels have installed systems that facilitate the reduction of major environmental costs.

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SIZE OF RETAIL BUSINESSES AND THEIR LEVEL OF ADOPTION OF GLOBAL SOURCING

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Abstract

This article uncovers the relationship between the size of retail businesses and their level of adoption of global sourcing and also discusses the challenges faced by shoe retailers in Cape Town, South Africa. A mixed method approach was used to collect and analyse data from a census group of 40 shoe retailers within and around Cape Town. The data was collected using questionnaires and in-depth interviews. The results of the study reveal that the size of the business plays an important role in the adoption of global sourcing. The results also reveal that smaller businesses find it difficult to acquire the resources required to execute an effective global sourcing operation.

Keywords: Global Sourcing, International Procurement, Offshore Outsourcing, Internationalisation

1. INTRODUCTION

The era of globalisation has formulated vast platforms for ingenuity. One such platform that has captured the attention of most companies around the world is global sourcing (Trent & Monczka, 2003). The essence of globalisation dictates the eradication of geographical boundaries and focus on bringing commodities, people and information closer together through the use of technology. Advanced technology has influenced companies to adopt global sourcing. In addition to that, extreme levels of competition brought to the fore the need for the creation of sustainable competitive advantage as one of companies' strategic of priorities (Zeng, 2003). Cost saving has also been one of the major attributes that compelled most companies to consider global sourcing which has been documented to be capable of reaching cost savings of 10 – 40% compared to local sourcing (Frear, 1992; Minahan, 1996).

Global sourcing has also drawn great attention within the retail industry because of the cost saving benefits, which has seen an inspired renewed emphasis resulting in aggressive expansion and development within the areas of global sourcing (Jonsson & Tolstoy, 2013). Cho & Kang (2001) indicated that since business operation between production companies and retail companies are different, the same should apply to their global sourcing operations.

According to Trent & Monczka's (2005) global sourcing evolution diagram, businesses adopt different sourcing strategies (global sourcing has three distinctive stages which are further explained in the literature review below) of global sourcing based on their size and resources availability. The shoe retail industry in Cape Town has been heavily active in terms of adopting global sourcing in all its three stages (domestic sourcing, International procurement and global sourcing). According to the Department of Trade and Industry (2013), the city has seen increased growth in imports, which indicates the rise of global sourcing strategies in the two international forms (global sourcing and international procurement). Trent & Monczka (1992) established that global sourcing is distinguished into three main categories, namely: domestic sourcing, international procurement, and global sourcing. All these categories have been successfully adopted by shoe retailers in Cape Town. The terms global sourcing will be used in this paper interchangeably to represent all three stages.

This paper aims to understand major components of global sourcing, particularly the establishment of relationships between sourcing strategies and the size of a business. Challenges faced by shoe retailers to adopting sourcing strategies will be discussed, as it is an area that has not yet been explored. Most literature discussed focuses on production challenges of global sourcing (Cho & Kang, 2000). The field of retailing has limited documented sources on global sourcing hence this paper aims to also satisfy this need and add more information to the body of knowledge.

2. LITERATURE REVIEW

Trent and Monczka (1991:4) define global sourcing as the collaboration and coordination of procurement necessities across "global business units, identifying common merchandise, supplier, technology and processes". Schneid (2004:3) concurs with the definition and posits that global sourcing is an organised purchasing, marketing and strategic orientation of supply-chain management on a worldwide scale. Vasudeva (2011:58) has a similar perspective on the definition of Trent and Monczka (1991:4) and Schneid (2004:3); he describes global sourcing as "proactively integrating and coordinating common items and materials, processes, designs, technologies and suppliers across worldwide purchasing, engineering and operating locations".

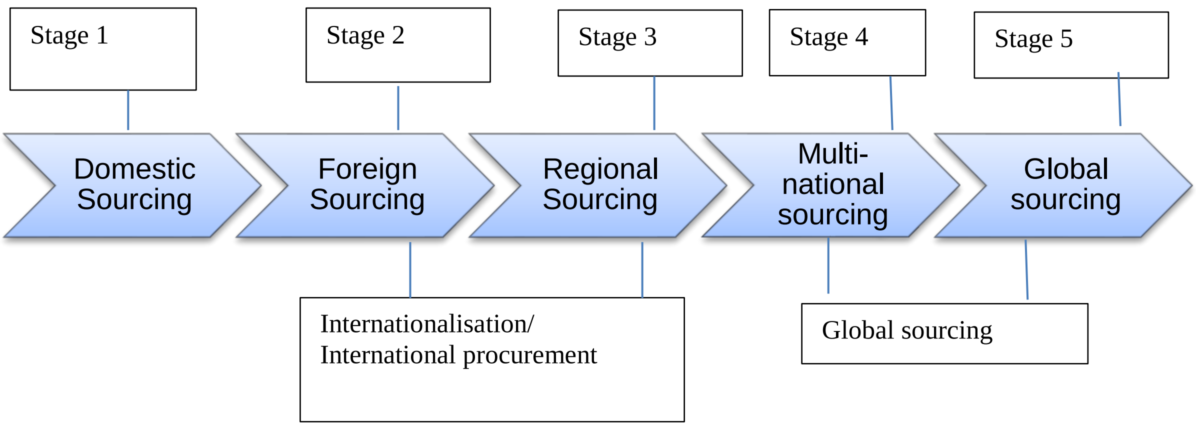
The above definitions highlight certain key areas that determine global sourcing. These include production and purchasing from foreign markets, advancement in technology, price economies and coordination of resources and information. These factors are the benchmarks for an effective global sourcing strategy. Trent & Monczka (2005) identified other factors which are equally crucial to an effective global sourcing operation; and they include executive commitment of global sourcing, rigorous and well-defined processes; availability of required resources; integration through information technology; supportive organizational design; and structured approaches to communication methodologies to measuring cost savings.

2.1. Global sourcing evolution

Trent & Monczka developed a well-recognised global sourcing diagram that depicts the five major stages of global sourcing. These stages compose of the essence of domestic sourcing, international procurement and global sourcing. The premise of this diagram is based on the belief that business growth also influence the sourcing strategy adopted by a business. The bigger the business, the more likely it is to possess vital resource for sourcing operations. Global sourcing comprises of different stages depending on the resources, the willingness of management and the size of the company. Trent and Monczka (1991:4) create a development process and mention the different characteristics within the stages.

Below is a structured diagram showcasing the buying evolution within companies, according to Trent and Monczka (2003:614). The diagram is recognised by Hong and Holweg (2005) as the commonly used explanation of global sourcing.

Figure 1. Global sourcing evolution diagram



Source: Trent and Monczka (2003:614)

According to Trent & Monczka (2003:613), a business goes through a development continuum of evolution. The authors further mention that most businesses start up from domestic sourcing and only internationalise when their businesses and operations expand. This point is supported by Rajagopal & Bernard (1993:4) who argue that sourcing evolves with the maturity of the business through a continuum and the significance of integrating resources within the organisation to ensure competitive efficiency. Trent & Monczka (2003:613) observe that there is a large number of companies at the early stages of development, specifically stages 1 and 2, which is the opposite of the last stages of development (stages 4 and 5) where companies are fewer. The authors postulate that, as the process matures, there are fewer and fewer firms that practise the upper levels of global sourcing. The reason for this decrease in number is that companies only reach the two stages when they have realised a worldwide sourcing position (Trent & Monczka, 2003:613).

Mohammad & Julien (2010:2) explain Trent & Monczka's (2003:613) model as developing from sourcing locally to an international strategically coordinated sourcing strategy. The authors' further point out that domestic sourcing involves acquiring merchandise locally, which is within the boundaries of the country. Stage 2 encompasses both local sourcing and outside-border sourcing.

Stage 3 is depicted by Mohammad and Julien (2010:2) as "worldwide buying as part of purchasing strategy". Instead of international procurement being a supporting tool to complement local procurement, in this stage it is the main sourcing tool for the organisation. Global sourcing is encompassed by stages 4 and 5 where there is an integration of resources and strategies on a worldwide scale. The difference between the two stages is that stage 4 includes both regional and worldwide purchasing strategies while stage 5 is dedicated to worldwide purchasing only.

2.2. Why global sourcing?

After understanding what global sourcing is, the next logical question is to ask: why global sourcing? This section will discuss the reason why companies are investing so heavily in resources to ensure that they fully benefit from the advantages of using global sourcing.

Global sourcing can implicate a cost reduction of 15 to 30% compared to local sourcing (Cho, 2001:542). This, amongst many, is the main reason why companies have been swayed to the idea of implementing global sourcing. PWC (2010:5) concur and points out that global sourcing is a solution to competitiveness and survival in the modern business world. This, amongst many, is the main reason companies are exploring the option of global sourcing compared to sourcing domestically. Platts (2010:320) agrees with this reasoning and is of the opinion that the likely destination for most companies that practise global sourcing is China and Vietnam. The reason why China is regarded as the most suitable location for global sourcing is the price advantage it offers its clients (Frear, 1992:2; Minahan, 1996:65; Mankino, 1999:42).

However, despite the opinion of Frear (1992:2), Minahan (1996:65) and Mankino (1999:42) who suggest that China is the most economic location to manufacture and acquire products, Platts (2010: 320) and Peterson (2000:29) are of the notion that China is not the cheapest place to acquire products because an average of 50% of the quoted prices are additional costs, while companies perceive additional costs to be only 25%, hence indicating that companies do not comprehensively measure costs for global sourcing.

Global sourcing is adopted by most companies because it improves their competitiveness. Companies that employ global sourcing are in a position to offer better products at affordable prices. Global sourcing also enhances a company's image as it attracts recognition from suppliers and the world of its existence and vision. Foreign markets offer better quality products and, in some cases, products which are scarce or difficult to acquire. Another factor which fuels buyers to acquire from foreign markets is the better delivery terms in which the suppliers offer competitive lead times (Frear, 1992:2).

According to PWC (2010:7), another reason why companies source globally is to access qualified personnel. There are products which can only be produced by skilled and trained personnel who are unavailable in local markets, so companies have no choice but to source products from foreign markets that have the skilled personnel. PWC (2010:8) go on to point out that global sourcing facilitates the fragmentation of interdependent business units by seeking strategic alignment.

2.3. Advantages and disadvantages of global sourcing

Jean (2008:266) illustrates advantages and disadvantages associated with implementing global sourcing. These advantages and disadvantages are depicted below.

Table 1. Advantages and disadvantages of global sourcing

Advantages	*Disadvantages*
Increased size of potential supply base	Have to deal with foreign institutions such as border law enforcement agencies
Lower production cost, especially for labour intensive production	Have to deal with foreign cultures which could affect communication
Increased technical experience, mostly for high technology production	Have to deal with foreign languages which could affect communication
More flexible to switch between supply sources	Need to pay import duties where applicable
Enjoy benefits of economies of scale	Increased transportation costs and supply chain uncertainty
Source of intermediate products closer to raw materials	Forward integration by foreigner suppliers, patent infractions possible
Raw materials only available from foreign sources	Quality problems
Focus on core competencies	Negative effects on employee commitments and legitimacy at home base
Reliance on independent suppliers, and decreased ability to keep abreast of emerging technical requirement	

Source: Jean (2008:266)

A common but vital benefit of global sourcing is its ability to reduce costs; this is amongst the main reasons global sourcing has been a major priority for most companies (Liu et al., 2008:436; Monczka & Morgan, 2000:86; Tsai et al., 2008:415). Contrary to the perception of Zeng and Army (2003:367), Christopher et al, (2011:70), and Trent and Monczka (1991:4) that global sourcing facilitates cost saving in firms, other authors suggest that there is a need for a balance between outsourcing and insourcing. Jean (2008:266) argues that if a firm outsources (global source) all of their activities this can lead to a deficiency in innovation, bargaining power and a loss of identity of the firm.

On the other hand, firms that insource all of their activities run the risk of failing to utilise the powerful incentives supplied by markets (Jean, 2008:266). As the company does more offshore outsourcing the highlighted disadvantages above become more and, inversely, if a firm insources all of its activities the advantages highlighted above become less (Jean, 2008:266).

According to Jean's (2008:266) Table, global sourcing influences the advancement in technology through exposure. Trent and Monczka (2003:609), Monczka and Morgan (2000:86) and Fagan (1991: 23) all concur with Jean (2008: 266) and explain that newly discovered technology is used to explore new markets and enhance the company's ability to source globally.

Through global sourcing the quality of products also improves (Trent & Monczka, 2003:608; Humphreys et at., 1998:176) as firms enjoy diversity in options (Jean, 2008:266). According to Fagan (1991:23) the availability of a big supply base also makes it possible for sourcing firms to acquire scarce or rare materials or products.

Despite the advantages mentioned above, global sourcing exposes users to vast challenges such as a decrease in earnings due to hidden costs (Fagan, 1991:23; Tsai et al., 2008:416). Other challenges include hyping transport costs and supply-chain risks due to the potential breakdown of modes of transportation (Jean, 2008: 266). This also leads to longer lead times which disrupt the company's plans and the firm's competitive strategy as well as customer expectations of the business (Fagan, 1991, Fitzgerald 2005:16).

According to Trent and Monczka (2005:25) and Jean (2008:266), global sourcing faces cultural difference challenges. These authors further point out that when different people with different backgrounds and cultures meet to trade this usually complicates the process of trade – especially if the trading parties have little information on each other's customs and cultures – and results in misunderstandings or even no trading at all.

Not only can cultural difference hinder sourcing operations but so can political instability (Liu et al., 2008:437; Fagan, 1991:23; Fitzgerald, 2005:17; and Manuj & Mentzer, 2008:133). Developing countries are commonly affected by political instability and to conduct global sourcing in such regions is very difficult.

Lui et al. (2008:435); Fagan (1991:24); and Trent & Monczka (2005:25) all agree that exchange-rate fluctuations are another limiting factor to global sourcing because they make the activities very unpredictable. The global sourcing budget is mostly affected by this challenge and it forces most companies to formulate pragmatic means to ensure minimal damage to budgets set. Budgets enable companies to know their cost savings through global sourcing but this is not possible if the budget is constantly disrupted. This also affects the expected trading costs of companies because they have to pay for any budget variances encountered (Fagan, 1991).

As mentioned earlier by Jean (2008:266), global sourcing involves an increase in rules and regulations that involve abiding by foreign and local laws on imports and trade. According to Trent and Monczka (2005:25), these rules and regulations involve acquiring and filling in the necessary paperwork both foreign and domestic; this is known to be very tedious and time-consuming in the event of the company performing the process itself.

3. METHOD

The sample groups for this research were derived from major shoe retail clusters within the city which included areas in and around Cape Town CBD; Woodstock, Salt River, Parow, Paarl, Kenilworth and Lansdowne. The research implemented a census sampling technique to select participants which ensured high volumes of data and improved reliability of information.

A case study format was selected as the best research strategy to use as it involved the analysis of "units" in the form of different shoe retailers with different business formats and operations. Baxter and Jack (2008) explained that for a case study to be one, it involves a unit of analysis known as a case hence supporting the selection of a case study for this research. Yin (2003) recognized that case studies are flexible and they can be easily manipulated to suit a research depending on case, context and type of research. This influenced the decision to select a single-embedded case study as it best suited this type of research with multiple units within one major case.

The sub-units comprised of 80 shoe retailers who operate within the above mentioned areas. Logistics managers, retail buyers and executive management (owners, directors or functional department heads) were the primary respondents aimed to answer the research questions which were administered through a research questionnaire and in- depth interviews. These two data collection tools represented two different types of research philosophy, interprevitism and positivism. According to Lin (1998), these two schools of thought were once regarded as incompatible due to their comprehension of the area under study. However, he further outlines that the two compensate one another's flaws and improves the output of the research.

This reasoning highly influenced the research philosophy adopted for this study. A mixed method approach was employed, also known as triangulation, involving the use of both qualitative and quantitative means of data collection. As indicated earlier, in-depth interviews (which are qualitative in nature) and survey questionnaires (quantitative in nature) were administered to respondents. The use of triangulation also aided in asserting the validity and reliability of the information obtained through cross referencing information (Golafshani, 2003). 80 survey questionnaires were distributed to the target respondents through the implementation of the snow ball effect and pick and drop system. Irawati (2012) explains the snow-ball effect as process of inquiring richly informed research participants or people about locating prospective respondents based on the premise that they know the industry or people in that field of interest.

The data was analysed differently since they represented two very different paradigms. Survey questionnaires (quantitative data) were processed using Statistical Package for Social Science (SPSS) which provided descriptive statistics of the findings, in the form of mean, frequencies, standard deviation and percentages. Qualitative data was analysed through content analysis which involved coding the findings and presenting them in graphs, charts and percentages.

4. RESULTS, DISCUSSION AND CONCLUSION

The study focused on 40 shoe retailers within and around Cape Town. A total of 80 questionnaires were administered to different functional managers within targeted shoe retail companies. However, 62 questionnaires were brought back contributing to a response rate of 77.5%. According to Ray (2012:333), Mugenda & Mugenda (2003) a response rate above 75% should be regarded as 'fortunate' as it is very rare to achieve such a feedback rate. The results comprise of findings from both qualitative and quantitative methods incorporated into this research. They are used to complement each other through substantiating findings from either paradigm.

4.1. Size does matter

The study also aimed to evaluate the relationship between sourcing strategy and size of business. Trent & Monczka (1992; 2002; 2005) have continuously pointed out that as the business grows bigger, so does the development of sourcing strategy. However, very little has been documented on the relationship between the two above mentioned variables. This section explains the effect of size of business to the sourcing strategies selected within a shoe retail format.

Stimpson & Farquhason (2015) emphasise that there is no rule of thumb when evaluating the size of a business. However, there are some ways which can be used to distinguish or compare businesses. The use of number of employees as a determinant for organisational size has been considered as fairly accurate, which as a result was used to for this section.

Table 2. Cross tabulation between number of staff and sourcing strategy

Employee * Sourcing strategy used Cross tabulation					
Count					
		Sourcing strategy used			Total
		Domestic sourcing	International procurement	Global sourcing	
Employees	5 and below	27	4	1	32
	6- 15	0	5	2	7
	16-50	0	6	0	6
	51 or more	0	2	15	17
Total		27	17	18	62

	Value	*Df*	*p-value (2-sided)*	*Exact p-value (2-sided)*
Pearson Chi-Square	75.566[a]	6	.000	.000
N of Valid Cases	62			

There is a significant relationship between the size of a company, represented here by the number of employees, and the sourcing strategy used by the companies ($x^2 = 75.566$, d.f. = 6, p-value < 0.001). The results support the findings of Trent & Monczka (1992, 2002, 2005) as there is an evident relationship between the variables, and importantly the similarity of the premise to the shoe retail industry. 5 of the 32 respondents who have 5 employees and fewer adopt IP and GS while all 17 of the respondents with 51 and more employee implement global sourcing.

The number of branches retailers have was also used as a determinant of organizational size. Most successful retail establishments are normally chains and from these chains stores, one can grasp an overview of the size of a business hence the reason of using it as a factor in this research.

Table 3. Cross Tabulation between number of store and sourcing strategy

Crosstab					
Count					
		Sourcing strategy used			*Total*
		Domestic sourcing	*International procurement*	*Global sourcing*	
Number of branches available	1-5	26	4	1	31
	6-20	1	6	1	8
	21-more	0	7	16	23
Total		27	17	18	62

Chi-Square Tests						
	Value	*Df*	*p-value (2-sided)*	*Exact p-value (2-sided)*	*Exact p-value (1-sided)*	*Point Probability*
Pearson Chi-Square	53.305[a]	4	.000	.000	.001	
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 2.19.						
b. The standardized statistic is 6.468.						

There is a significant relationship between the number of branches and the sourcing strategy used by shoe retailers in Cape Town ($x^2 = 53.305$, df = 4, p-value < 0.001). Shoe retailers with less branches mainly source domestically, evidenced by 26 of the 31 shoe retailers practising domestic sourcing (83.87%). Of the 23 participants who have 21 or more branches, 16 indicated that they source globally, while 7 indicated international procurement and none sourced domestically. The opposite was true, with only 1 respondent indicating they source globally, 4 practiced international procurement and 26 sourced domestically. This shows that the number of branches does indicate the sourcing strategy adopted by the retailers.

The level of investment management is prepared to make for global sourcing has been highlighted as crucial to an organization that is pursuing advancement in IP and GS (Trent & Monczka 2005). However, similar to organizational size, it is speculated rather than tested, the relationship between investment and sourcing strategy implemented. Therefore, this section aims to unveil the relationship of the two within a shoe retail based format.

Table 4. Cross tabulation between sourcing strategy and level of investment in global sourcing

Crosstab					
Count					
		Sourcing strategy used			***Total***
		Domestic sourcing	***International procurement***	***Global sourcing***	
Investment in global sourcing	Strongly agree	1	6	12	19
	Agree	3	4	6	13
	Neutral	9	6	0	15
	Disagree	10	1	0	11
	Strongly disagree	4	0	0	4
Total		27	17	18	62

Chi-Square Tests				
	Value	***Df***	***p-value (2-sided)***	***Exact p-value (2-sided)***
Pearson Chi-Square	38.298[a]	8	.000	.000
a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is 1.10.				

There is a strong relationship between level of investment and sourcing strategy (x^2 = 38.298, df = 8, p-value < 0.001). Table 3 above highlights a total of 18 respondents who source globally and feel that their global sourcing operation is well funded. This indicates that global sourcing and international procurement require investment, which is what shoe retailers are doing to support their sourcing operations.

4.2. Challenges faced by retailers when adopting global sourcing

Shoe retailers who identified themselves as major participants in GS and IP explained that despite the advantages, GS and IP have challenges which may hinder the entire procurement process of organisations. Such reasons have forced some retailers to remain sceptical about moving further with the GS evolutionary stages (Trent & Monczka, 2002).Some shoe retailers have based their procurement processes on sourcing intermediaries who absorb all the risk and ensure provision of comfortable debt payback periods. Since cash flow is a challenge for small to medium sized enterprises (Picard, 2002), most shoe retailers pursue opportunities where they can enjoy credit while continuing practicing business, and this as a result has made intermediaries very popular in Cape Town.

Retail establishments Stock Keeping Units (SKU) levels of most Cape Town shoe retailers are smaller to those of other global sourcing companies which significantly affects the production of the designs of shoes. Manufacturers and suppliers dictate that production only commences when a specific number of shoes is ordered for one range which in turn is not economically viable for most shoe retailers in the city. As a result, most shoe retailers are utilizing the services of intermediaries since they are still interested in the advantages associated from international procurement.

The activities of multinational companies in the GS and IP realm have created a difficult platform for smaller companies or retailers to also participate. Manufacturers and suppliers alike have set stipe standards which include paying a deposit of 50% of the total cost of an order, which in a rational sense is difficult to achieve for most shoe retailers in the city. This is also accompanied by other design and sourcing costs which to most shoe retailers are considered unnecessary and inconvenient. This data is supported by Steinle & Schiele (2008) who identified the negative influence of suppliers on unwanted or list preferred clients who in this scenario are small to medium sized enterprises with very little spending budgets. They further explain that these customers are least prioritized since their contribution to their overall sales is minimum hence dedicating less effort to making sales with these establishments.

Juttner et al. (2003:198) explain that great distance pose a great risk when sourcing. This is also a challenge since there are multiple alternatives to sourcing, particularly shoes. South Africa has been very active in terms of clothing and footwear production and despite the great emergence of IP and GS, it remains a lucrative source of shoe merchandise hence the complicating global sourcing adoption. Sourcing domestically, according to retailers, serves as a symbol for patriotism for their country and importantly offers a peace of mind in terms of quality assurance. Retailers are under the assumptions that locally produced shoes are of better quality as compared to imports which as a result justifies the prices and cost associated with them.

5. CONCLUSION

As with global sourcing of production companies, shoe retailers abide to the same laws of global sourcing and international procurement with information sharing and collective decision making as the back-bone of the whole strategy. As mentioned earlier, this proves valuable to coordinate and formulate global logistical network and identify potential financial threats through analysing and tweaking processes to shorten the travelling distance as well as ensure that economies of scale are enjoyed through global network configurations.

It was also observed that there is significant relationship between sourcing strategy and level of investment, number of employees and number of branches one company has. All these three factors determine the size of a retail establishment as they are normally the benchmarks used to distinguish or evaluate the size of a business. The results tested positive with regards to the relationship between the size of the business and its ability to implement global sourcing. This may be because the nature of global sourcing stipulates resource demanding operations which can only be supported by larger corporations and the same applies within the shoe retail spectrum.

An increase in human resource personnel in particular significantly influences the adaptation of global sourcing as the strategies require experienced and qualified people to execute them (Trent & Monczka, 2005). This has been supported by the results as there has been a significant relationship of the two variables. It also goes on to support how much dependency global sourcing has on human resource since it is vastly used within all major global sourcing activities.

The essence of the strategy remain the same despite different business formats, however its significance may not be as great as compared to production industries, particularly in Cape Town. The emergence and dependency on sourcing intermediaries has become very popular especially considering that most shoe retailers within the city are small to medium sized enterprises hence the need for their aid. The sourcing intermediaries' ability to offer credit in the form of 30-day payment plans, assortment of merchandise as compared to sourcing one single range from overseas and peace of mind as they absorb all risk and responsibility to get the merchandise from over-seas make them a better option for retailers.

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GOVERNANCE AND REGULATORY ISSUES: MICROFINANCE AND DEVELOPMENT OF RURAL COMMUNITIES IN NEPAL

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Abstract

Microfinance Institutions (MFIs) that have a mission to provide credit to the poorest of the poor appear to be the panacea for rural poverty and hardship and bring forward a promise of better tomorrows. However, MFIs as a means of expanding financial inclusion and competing with the informal financial sector are not such a success story in rural Nepal. The increasing demand for cash to meet social and religious obligations in largely subsistent village economies is increasingly supported by short-term seasonal migration. The removal of working-age males from communities produces a range of unanticipated and not necessarily desirable outcomes. MFIs, it is suggested, could ameliorate the problem and positively contribute to improved sustainable development outcomes.

Keywords: MFI, Seasonal Labour Migration, Nepal, Cash Need, Policy Implication

1. INTRODUCTION

In this article the financial and social benefits of expanded Microfinance Institution (MFI) outreach[9] in rural Nepal are examined. Central government policy makers and research funders emphasize the necessity to develop MFIs to uplift the social and economic situation of the poor in developing nations. Potentially, significant gains in outreach are realistically achievable in the context of remote village settings where there is currently little access to cash. The cash requirements among the rural poor are increasing as more and more activities, such as the purchase of chattels and livestock plus other transactions such as religious festivals and weddings, now require money.

The barter economy has operated well but is gradually waning in importance as urban habits gain more traction in remote communities. MFI services, in particular credit and savings extension, can be achieved by removing the access barriers in rural areas (McIntosh et al., 2011& (Bos & Millone, 2015). Acceptance of small amounts as deposits may encourage a saving practice and contribute to building confidence in saving for the future among poorer communities. Access to finance can contribute to a long-lasting increase in income by raising investment in income-generating activities (Agbaeze, 2014) and to a possible diversification of income sources. An accumulation of assets may be achieved and importantly a smoothing consumption, which may reduce vulnerability to illness. Drought and crop failures are ongoing issues in rural communities but slow and steady improvements in education, health and housing through the deliberate choices of borrowers who are in improving economic spaces will make for better lives. In addition, access to finance can contribute to an improvement of the social and economic situation of women who have very, very limited opportunities at present. Finally, microfinance may have positive spillover effects in addition to the direct economic and social improvements obtained by the borrower (Zhou and Takeuchi, 2010). The positive contribution microfinance can make to reducing poverty has convinced many governments, non-government organizations (NGOs) and individuals to put effort into supporting MFIs and their activities.

MFIs have also received criticism, including their failure to reach the ultra-poor (Scully, 2004 & (Lønborg & Rasmussen, 2014), and not adequately providing benefits through financial services and programs (Aghion and Bolton, 1997). The tension between financial performance and outreach is manifest in the lack of confidence from the MFI sector and seeing the risk that the ultra-poor present as borrowers. Hulme and Mosley (1996) suggested that the poorest of the poor, the so-called core poor, are generally too risk averse to borrow for investment purposes. Therefore, they benefit only to a very limited extent from microfinance schemes (Newman et al., 2014, & (Lønborg & Rasmussen, 2014). Staff of microfinance institutions may prefer low-risk exposure, if bad debts are unfavorable in terms of bonuses or advancement, then seeing ultra-poor as extremely credit risky promotes a desire to avoid them (Hulme and Mosley, 1996). MFI practices may also lead to the exclusion of the core poor, such as a requirement to save before a loan can be granted (Kirkpatrick and Maimbo, 2002; Mosley, 2001; (Lønborg & Rasmussen, 2014).

In an economy where rural workers receive payment in kind, there is little money in circulation. The opportunity to acquire additional poultry or grow a roof garden to supplement in-kind receipts with cash sales requires an initial investment. If

[9]Outreach relates to the number of customer served by an MFI and the benefit the borrower achieves from the credit (Lafourcade et al., 2005).

there are no MFIs operating in the area, then the moneylender, a traditional source of money, who some now consider high-country loan sharks, is one option. Migration has long been an important livelihood strategy for the people of rural Nepal. Whenever the population has risen to such an extent that people can no longer secure a livelihood, they have migrated elsewhere. Even today, poor people pursue short-term seasonal[10] migration as a livelihood strategy in Nepal. The migratory worker culture is becoming a staple pattern for survival rather than a process of generating surplus cash to invest in money-producing agriculture or trade. Often this form of work is necessary even where moneylenders operate. This is now a common situation for rural people, particularly those in more remote villages

The poorest rural people in Nepal own no land, have no regular income sources, collateral or financial literacy. The tyranny of remoteness is an obstacle too large to address through an immediate policy change. Small incremental steps are more likely to be successful. Development of investment lending in rural communities will stimulate a trickle-down effect through paid day-labor having cash in hand.. Aghion and Bolton (1997) find that the trickle-down mechanism can lead to a unique steady-state redistribution, improving the production efficiency of the economy. Applying this trickle-down mechanism in Nepal may enhance economic growth and in turn further contribute to the expansion of lending and saving activities. In Nepal, those who have more wealth and are more capable of a managing resources will be creating jobs through investment and therefore producing more business or businesses. This would encourage people to work more to earn more. This process leads to local economic growth and wealth creation that benefits everyone, not just those who invest.

2. NEPAL BACKGROUND

Nepal is one of the world's least developed countries located in the north of South Asia. According to the World Bank (2014) the annual per capita income of USD750 ranks at 157th of 187 countries in world in the Human Development Index. More than 80% of the total population lives in rural areas and their livelihood depends on agriculture and related activities (World Bank, 2014).

A landlocked republic surrounded to the north by China and to the south, east, and west by India, Nepal has potential to grow its economy capitalizing on its location, sandwiched between the two emerging giants of India and China. Geographically, it is divided in three zones: a) high mountains and the Himalayas in north, b) small mountains and hills in middle, and c) the plain (Terai) in the south.

Nepal and India share a 1,778 km border that is very porous, making it difficult to capture accurately data on cross-border movement and undocumented migration. There is an 'open' border as per the agreements of a bilateral treaty signed in 1950. According to the Treaty, Nepalese and Indians can travel and work across the border and are treated on a par with local citizens. Rural Nepalese, who have long been suffering poverty, unemployment and more recently a civil war, migrate to India in their thousands every year.

The Central Bureau of Statistics (2011a) estimated that nearly 30% of the population of 28 million live on less than USD14 per person per month. Some of the causes for the poverty are disparities of caste, gender, and geography. Stimulation of migration, according to Bhattarai (2007) is a main source of income to ameliorate poverty, unemployment, declining natural resources, and more recently the Maoist insurgency.

Bhattarai (2006) argues that there are reasons to migrate from Nepal such as limited employment opportunities, deteriorating agricultural productivity and armed conflict. Further, he observes that many villagers go abroad to work for a while, returning with some money and the experience of living in a different geographical location. However, what is clear is that most would be worse off if they were depending solely on local employment (Walsh and Jha, 2012).

3. PROFILE OF A VILLAGE

Dekaha is a village where people engage in short-term seasonal labour migration. Dekaha is a village in the Village Development Committee (VDC) of Ekarahiya located in the Mahottari district in the Janakpur Dham zone, southeastern Nepal. It is 25km from the district headquarters, Mahottari and 7km from Janakpur. The VDC Ekarahiya consists 1441 households of approximately 12,000 people with Dhekaha consisting of 400-500 households with a total population of 3,000 (Central Bureau of Statistics, 2014).

The village has access to a primary school and post office but does not have infrastructure such as transport and communication, nor are there services such as health and other basic facilities. The village economy mainly depends on agriculture laboring and animal rearing. Most inhabitants do not own land and are dependent on day labor for subsistence. The landowners and farmers of a neighboring village normally hire workers for agricultural or domestic work each morning on a daily basis.

Agriculture in the area depends on rainfall for cultivation. Some landowners in the neighboring village have pumps to access underground water for irrigation and this is just enough to make it worthwhile for Dekaha's day laborers. Dekaha, however, faces frequent drought and irrigation sources are very limited. The entire village would otherwise be completely dependent on rainfall without some small ponds. These supply water for bathing, cleaning clothes and livestock drinking water. There are also a few wells and bores in this area. An international non-government organization (INGO) donated hand pumps for the village to obtain drinking water. Farmers grow traditional crops such as rice, wheat, maize, paddy and jowar. The agricultural wage per day is NRs. 100 (USD0.98)[11] for males and NRs.70 (USD0.68) for female labor.

In Dekaha, the main credit supplying sources are commercial banks, MFIs and cooperative banks, which all require collateral for loans. These

[10] Seasonal migration comprises a period of a few weeks or months and implies a regular return of migrants to the original place (Shrestha 2009; Department for International Development, 2007)

[11] NRB foreign exchange rate at the date of 03 Aug 2015, USD1= NRs102.3

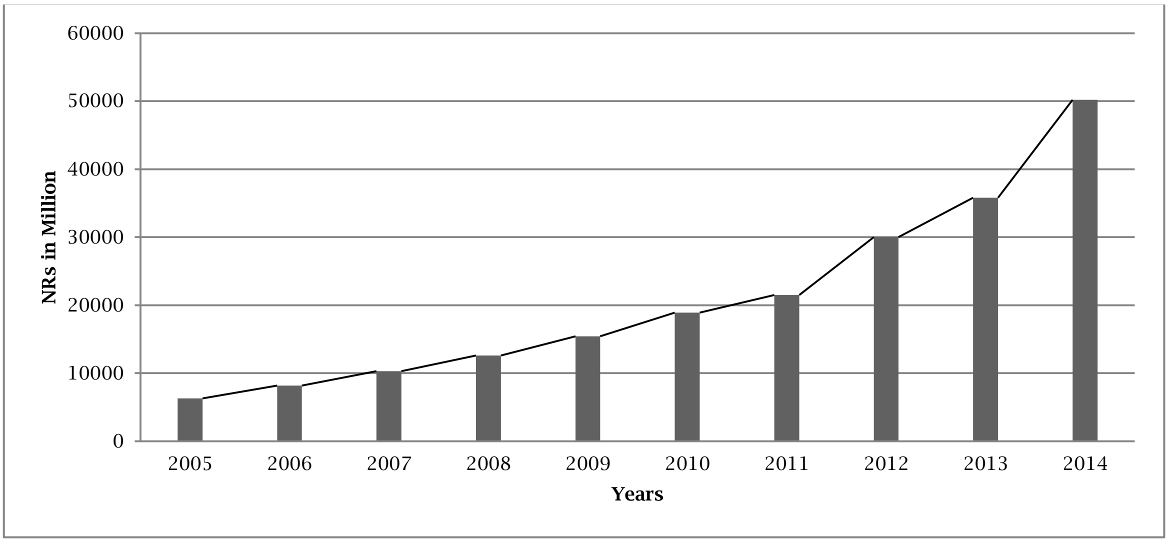
institutions do not have branches in this village. People have to travel at least 7 km to Janakpur or 25 km to Jaleswor for credit purposes. However, recently, the Grameen Bank opened a center 3km away from the village to ease access to the credit process. There are also informal sources of credit, including moneylenders, traders, relatives and friends. One of the peculiar features of the village is that work is only available for a few months in the agricultural fields – it is seasonal work and after the monsoon, in order to generate cash, men in particular migrate from the village to various destinations in India.

4. EVOLUTION OF INSTITUTIONAL MICRO CREDIT ACTIVITIES

The formal banking system started in 1937 by establishing the Nepal Bank Limited with credit and deposit financial services to the commercial sector in Kathmandu and some urban areas in Nepal. In 1956, the Nepal Rastra Bank (NRB) was established as the central bank of Nepal to monitor and administer the banking system to control the money with a view to improving the lives of people.

The Nepal Rastra - Central Bank established the Agricultural Development Bank (ADB) in 1968 to support farmers by providing credits and marketing support for agriculture and its products. It was the beginning of the rural financial services the first microfinance in Nepal. In the process of developing the standard of living for the deprived sector and rural regions, the NRB directed that all commercial banks should invest a portion of their resources for these needy groups. Furthermore, NRB mandated for all the commercial banks to invest 5% of their sources in rural development projects with 80% to be in agriculture. There is a steady upward trend in MFIs lending as reflected in Figure 1.

Figure 1. Asset/ Liabilities of Microfinance Development Bank (MFDB) and Rural Development Bank (RDB) for 2005-2014



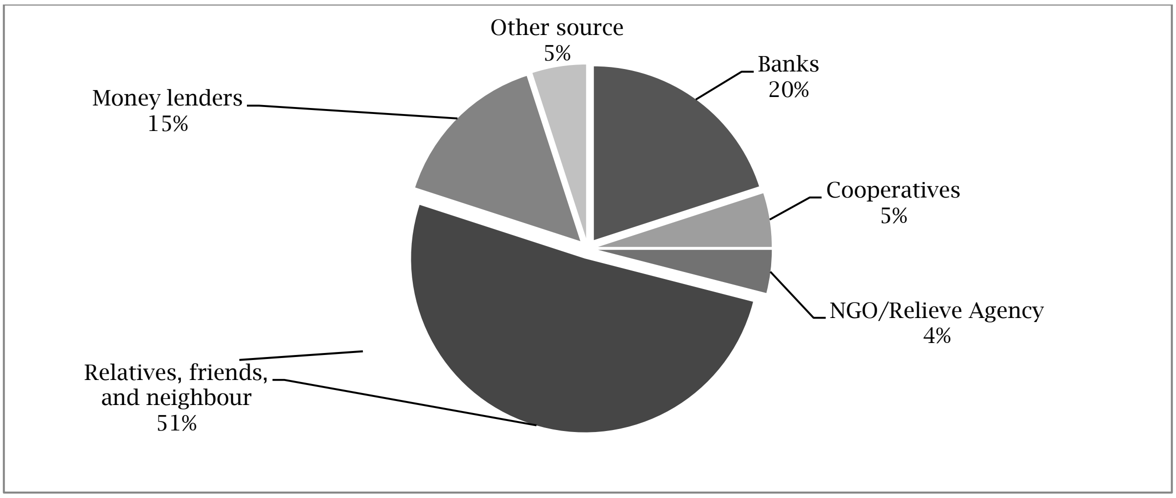
Data source: (Nepal Rastra Bank, 2014a)

Regional disparity is a consideration for the NRB, which encourages the private sector to participate by providing financial services in the rural areas of Nepal. In the process of facilitating the financial service to the rural region, the NRB opens its doors to participating with the private sector, to continuous development and to modifying its Acts to regulate banking and financial services (Shrestha, 2009). The NRB should be playing a positive role in forming and executing the policies for the financial sector to enrich rural people through access to financial services as a minimum. The financial sector is still in its infancy and needs more nourishing in order for it to provide services to all corners of the country. Financial services are still limited and focused more on urban rather than rural areas. The rural poor, in the interior regions, consequently have no financial services and depend traditional methods of dealing with their financial needs.

The formal sector's loan fund supplies, as shown in Figure 2, is 29% of total funds and is constituted by 20% from banks, 5% from cooperatives, and 4% from NGO/relief agencies. The informal financial sector in rural Nepal is widespread, supplying 71% of funds with relatives, friends and neighbors being the largest component with 51%, moneylender provide 15%, and a further 5% comes from other sources. The informal financial services come from property owners, merchants, farmer-lenders, goldsmiths, pawnbrokers, friends and relatives or informal group institutions such as dhikuti, dharambhakari, and guthi (United Nations Capital Development Fund, 2011).

The easy approach to personal credit, a short-term loan with quick access, and flexibility with or without collateral, is a popular informal financial service in rural Nepal. In most cases, the informal sector provides loans on the same day or within a week as a maximum. Most importantly, from the borrowers' perspective, lenders are flexible with the repayments. Borrowers in rural view them more favorably than MFIs. The forms of collateral preferred by lenders include gold or silver ornaments, bonding land or property, in some cases livestock, and even in the form of labor services.

Figure 2. Fund suppliers



Data source: (Central Bureau of Statistics, 2011b)

The interest rates charged by the informal fund providers range from 25% to 60% and in some cases 100% compounded annually. Informal fund providers receive the labor services and small gifts, in addition to the repayments, given by the borrowers as a way of keeping warm relations with the fund providers.

The availability of widespread informal financial services in rural areas suggests outreach would occur if MFIs were present and offering suitable terms. Efforts to date by the NRB to encourage formal financial institutions to establish themselves in rural areas have met with limited success.

5. MFIS OPERATIONS IN RURAL NEPAL

Banking services allow people to develop savings, which in turn will help them to improve their livelihoods and meet unexpected expenses. Importantly, savings will increase the likelihood of obtaining a loan for investment purposes. Local investment activities will help local economies grow and stimulate job opportunities. This will be an improvement upon the current situation where many cannot access financial services provided by the larger financial institutions, which effectively increases the income inequality gap. The poor remain trapped with debts for medical expenses, social obligation and sometimes consumption from which there is no escape and no way forward to earn money.

Statistics reported by the NRB 2013/14 reveal that approximately 40% of the Nepalese population now have a bank account, which is far greater than the 26% in 2006. However, it is unknown whether there have been multiple accounts opened by the same person, which might cause distortions in the per person calculation. Opening a bank account requires holding identification documents, which many rural people do not have, and distance to a bank, time involved, and the opportunity cost of lost laboring pay all suggest there are significant costs to accessing a bank (Demirguc-Kunt and Klapper, 2012).

The Central Bureau of Statistics (2011b) shows there are 40% and 44% of households that have access to financial services in less than or equal to half an hour and more than an hour's distance respectively. Rural households' access to financial services comes to 27%, compared to 89% of urban households. Furthermore, the percentage of households able to access banking services within an hour is highest in the plain (Terai) region at 75%, while the hilly region is 45% and the mountainous region is 17%. Even though the plains have the highest number of households with access to banking services, the interior parts of the plains region do not have ready access to banking services. In 2014, India made it compulsory for all people to have a bank account in order to be eligible to get loans and government benefit payments (Lakshami, 2014).

The Central Bureau of Statistics (2011b) indicates that during the last two decades there has been little change in the number of people taking out loans. The number of households receiving loans increased but proportionally the non-included households remained constant. Any progress is not good enough to tackle rural people's financial needs.

Table 1. Statistics of household loans, 1995/96 - 2010/11

Description	***Nepal Living Standards Survey***		
	1995/96	2003/04	2010/11
Number households receiving loans	1,924	2,538	3,715
Percent of households receiving loans	61.3	68.8	65
Average number of loans received	1.6	1.6	1.6
Number households having outstanding loans	1,830	2,468	3,566
Percent of households having outstanding loans	58.4	66.7	62.6
Average number of outstanding loans	1.5	1.6	1.5

Data source: (Central Bureau of Statistics, 2011b)

Central Bureau of Statistics' (2011b) data in Table 1 show the percentage of households receiving loans decreased in 2011 to 65 from 68.8 in 2004. However, the average number of loans remains constant at 1.6. The percentage of outstanding loans declined from 66.7 in 2004 to 62.6 in 2011, while average outstanding loans in 2011 are the same as in 1996. The financial institutions have not promoted a scheme to reach poor households or increased their outreach and service to those people who are still unattended.

The majority of the rural households have a low chance of getting financial institution support because: (i) they lack of physical collateral; (ii) the lengthy process of banking services discourages financially illiterate folk; and (iii) financial institutions are more focused on urban than rural areas in credit allocation.

Cumbersome processes for completing loan application documentation is a step too far for many financially illiterate poor. The supporting documents, recommendations, and guarantors heighten this disparity of access between services rural and urban. This significantly increases the likelihood that rural poor will only have the informal sector of relatives/friends/neighbors or moneylenders for credit purposes.

Table 2 presents demographic and MFI information for the Janakpur region. Four of the six districts show an improvement in the number of people per branch, i.e. a lower number, while one is unchanged and one has a very significant decline. When a branch closed in Ramechhap there was a big increase in people per branch. When the transport difficulties are included, the low level of service provided in rural areas is compounded. There is no internet or mobile banking in these areas.

Table 2.MFIs in Janakpur

Zone	*Districts*	*MFIs Branches*		*Population*	*Population per branch*	
Janakpur Dham		2013	2014		2013	2014
	Sarlahi	21	21	769729	36654	36654
	Dhanusha	19	23	754777	39725	32816
	Mahottari	15	20	627580	41839	31379
	Dolakha	4	5	186557	46639	37311
	Ramechhap	3	2	202646	67549	101323
	Sindhuli	7	11	296192	42313	26927

Data source: (Nepal Rastra Bank (NRB), 2014a)

A consequence of obtaining a loan from an MFI or the informal sector is the struggle to generate cash to service such loans, which may lead to short-term migration. Success stories are few, but occasionally working overseas does pay off. Pragas[12] and his three brothers spent their childhood as domestic help at Dekaha neighboring villages. Their teen years were bonded labor and rickshaw pulling. They tried hard to pay back the debt their parents assumed on different occasions from moneylenders, normally from the same landlord where Pragas and his siblings were working as domestic help and later as bonded labor. Their parents took credit for consumption, medication for elders and themselves, and a daughter's marriage and were barely able to provide food for the family.

Pragas got married, after his sister, and was unable to manage on his earnings consumption expenses and servicing the debt burden. They started a group for workers to short-term migrate to India. Their earnings from migrating work were enough for consumption but not debt repayment. Migration to foreign lands, such as Qatar and Malaysia, became popular among group members. Pragas decided to go to Qatar after meeting with an agent from a labor consultancy in Kathmandu. He took a loan of NRs 100,000 from a neighboring village's moneylender. He worked for three years at Qatar and then returned home. He manages to repays the credit but does not save money for investment.

He borrowed again to return to Qatar and this time took his two other brothers. In Qatar, he knew where to go and what to do and did not need other people's assistance. He returned to Nepal after three years with his brothers. This time they paid back the credit and bought a small piece of land where he built his own bamboo house. He spent all his earnings on building house and the buying land. He did not have savings but he was reluctant to go abroad again.

He started investigating local credit options, visiting banks that operated in the nearest towns; Janakpur and Jaleswor, the district headquarters. His time in Qatar had given him greater confidence, especially relating to financial matters. He was unable to get any help from banks, so he borrowed from a moneylender and started a business; a tea stall at his village. This time he is confident he will be able to pay back the moneylender from his local earnings. His wife and mother help him to run the tea stall and he makes regular debt repayment instalments to extinguish his debt. He is able to send his kids to school. MFIs can assist people like Pragas, making their life easier by providing credit facilities at the local level instead of through urban-based financial institutions. Credit facilities in rural communities save time and ease the access to credit for simple people. They can motivate rural people to get involved in financial activities to accumulate cash for their family's wellbeing.

Labor migration and remittances have their own role to play in household economic development. However, migration also has a role to play in human capital accumulation. The longer-term migrant worker, using their caste based vocation with which they grew up, may receive an injection of new competencies through working in a foreign land. Sunam (2014), in a Nepalese village case, discusses how one man developed his tailoring skills and established a tailoring business after returning home with their savings from Qatar.

Those who do not have skills can accumulate benefits by acquiring new skills working overseas

[12]Personal friend of researcher

and the exposure they gain puts them to the fore of the crowd to do things differently. These people are asset to their country from what they accumulate during their stay abroad. The foreign sojourn promotes entrepreneurship, and transferrable knowledge and skill (Dahal, 2014; Aghion and Bolton, 1997). The new working culture, habits, behavior, norms and ideas (Levitt and Lamba-Nieves, 2010) may help them to be able to start their own small businesses with the little savings accrued. Their engagement in economic activities contributes to the country's economic development. As the local economy improves, new opportunities for self-employment arise and there are job opportunities for others. The success of these new businesses will provoke others to do the same. MFIs' initiations are also potentially capable of promoting significant economic success for the poor. MFIs are essential in a situation where there is minimal employment creation (Nepal Remittance Association (NRA), 2014) while government and private sectors sleep (Karobar, 2015). The MFIs' role is vital to help poor escape the poverty trap and have a better life.

Short-term migration has arisen as the way of self-help. The wages earned through migration are a vital source of cash but it a cycle of poverty with little likelihood of escape. Money earned through short-term migration, in most cases, dissipates through repayment, partially or fully, to moneylenders, friends or others who supplied loans. When the purpose of the credit is for consumption, weddings, medical expenses, or travel expenses to find work it becomes a vicious circle. There are no surplus funds available for investment in productive use. MFIs may be able break the poverty cycle. A lack of education and financial literacy contributes to the repetitious cycle. Without mentoring and financial planning assistance, there are limited prospects for creating wealth from the meagre funds available.

6. CASH GENERATION

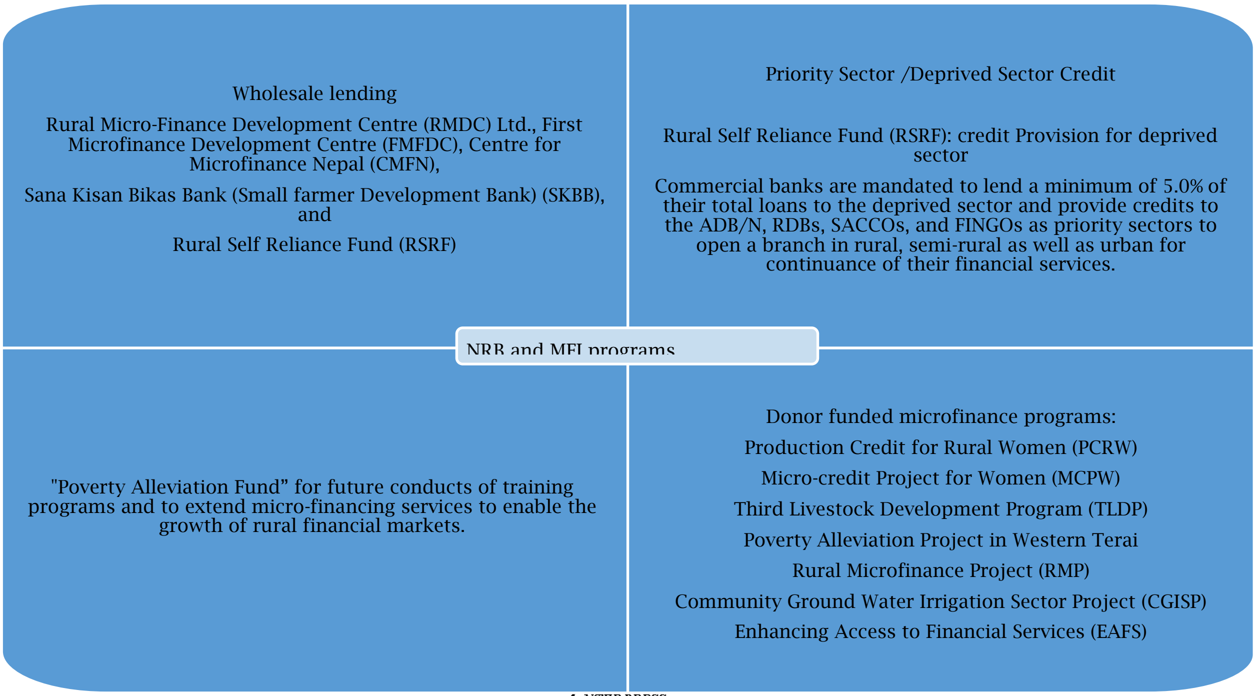
Credit supplier continue to meet the increasing demand for cash. As demand increases so does the cost of credit. The lack of financial inclusiveness in Nepal, as reflected in Figure 1, reflects a low-level of penetration by the formal sector. The informal sector operating in a largely unregulated setting means there are good arbitrage opportunities in lending money. Seasonal migration (also known as labor circulation) has also long been a major feature of livelihoods in rural Nepal (Rose and Scholz, 1980). In rural settings, the majority of family members engage in migratory work. Almost without exception, at least one member of each family leaves the village in search of a job in a nearby town or city and often in the Indian border area.

Cheaper transportation costs and readily available transport facilities from the Indian boarder to cities in India encourage short-term migration. The major border crossing points from Nepal into India are serviced by railway and road transport to major Indian cities. Costs associated with short-term migration principally consist of transportation, food for the journey and funding a couple of days at the destination while finding employment. These expenses consume the majority of money provided by friends, relatives, and local moneylenders.

7. POSITIVE ACTIONS TOWARD MICROFINANCE IN NEPAL

There is a range of initiatives, established by successive administrations, to promote financial services and improve rural production and the quality of life for village people. In Figure 3 below, major programs are noted. There is potential to rationalize the various schemes but no consolidation has occurred. Overlapping programs, present a moral hazard problem and some exploit these to their advantages while others fall through the gaps.

Figure 3. NRB and MFIs programs



The Central Bureau of Statistics (2011b) reports an 80% use of no collateral loans. The figure is 5% higher than the second survey of 2004 and 6% higher than first survey in 1996. This shows that the presence of MFIs and their services has produced an improvement upon the previous decade. This performance has reduced pressure on land and housing as well as other categories: ruminant collateral loans, which have reduced to 12% and 3% in 2011 from 14% and 9% in 2004 (Central Bureau of Statistics, 2011b). MFI financial services in Nepal have made it compulsory to an open account for their clients for their savings, credits and repayments and a savings account for saving purposes.

8. CAPITAL BUILDING

The need for cash for consumption and other purchases creates opportunities for the informal money suppliers to capitalize their investments. Informal sector operators who supply cash to needy poor to fulfil their consumption and other needs are accumulating plenty of cash and growing their incomes. Capital is being limited to the money suppliers. The borrowers are unable to get rid of the debt. The moneylenders are in most cases landowners. In the case study region, landowners are selling land for prices five to eight times higher than the price a decade ago. This gives moneylenders even more cash for their credit supply business and those landowners in the credit business find money lending less risk than sole dependence on agriculture and agricultural products. The gap between wealthy and poor is increasing. MFIs can intervene, bringing their financial services to the poor people in rural, as well as urban, areas for investment and creation of job opportunities at local level (Newman et al., 2014).

9.SUSTAINABILITY

The improvement of agricultural production through self-sufficiency to capital accumulation is essential for the rural poor of Nepal. The traditional way of agriculture forces people to be unemployed where they live or, through economic necessity, to look for employment opportunities elsewhere (Department for International Development, 2007; Walsh and Jha, 2012). From Table 3 it is apparent that the majority of households depend on non-agricultural activities more than agricultural for most of their income. Table 3 also indicates that among for those who do not own land that non-agricultural activities are very significant. There is a reversal for the land-owning portion of the population. The sufficiency of the agricultural products for the landless households is too low at approximately 5%, implying that 95% are not self-sufficient. However, the situation is completely different for landholders.

Table 3. Households and their dependence on agricultural and non-agricultural activities

	Total				Main source of income in the household		Sufficiency of agriculture produce	
	Number of holdings	Area (ha)	Farm population	Average household size	Agriculture	Non-agriculture	Sufficient for household consumption	Insufficient for household consumption
Holding without land	9,327	172.7	52,538	5.6	2,484	6,842	489	8,838
Holding with land	71,517	64,804.5	433,462	6.1	53,597	17,920	35,474	36,044

Data source: (Central Bureau of Statistics, 2013)

Encouraging the development of efficient markets for agricultural products, in the sense of transparency regarding prices and a regulatory framework to minimize corruption and cartel practices, is an essential component for encouraging agricultural investment. A greater confidence in fair prices for agricultural products will, coupled with access to capital through MFIs, will expand the quantity and range of produce available to consumers. There does need to be a market and transport for crops produced.

A recent problem relating to ginger production in Nepal serves as a salutary lesson. Nepal is the third largest producer of ginger after India and China (Prasain, 2014, February 12). The Nepalese farmers having limited training and no access to technical advice on pre- and post-production of ginger to reduce spoiling of this perishable crop by rhizome rot (Nepal Trade, 2014). The lack of a processing plant at local level means export is essential and more than 60% of Nepali ginger goes to India (Gurung, 2013). Indian importers process the ginger adding value (Gurung, 2013) and re-export it internationally.

The farmer while benefiting from the sale is not benefiting from the added value of processing. A producers' cooperative to store, dry and process ginger may be viable but requires investment.

Without access to capital, farmers have no option but to sell ginger to the intermediaries at the offered price or face the ginger rotting (Gurung, 2013).

A market, supported with soft interventions to ensure there is no monopsony present and ginger can reduce the trend of migration or foster reverse migratory trends (Mercy Crops, 2014). The intervention of the financial institutions to facilitate the proper market for the ginger, collecting ginger and establishing processing centers in production regions will benefit growers and the economy. MFI support for individual growers and smaller entrepreneurs will promote a vibrant industry context. MFIs inclusion of rural area has significant and positive impact on people lives in Nepal (Rajbanshi, Huang, & Wydick, 2015) which may support the local and country economy in long term. Furthermore, Lønborg and Rasmussen (2014) find MFIs supported people living is better even though they are poor.

The flow-on effect in terms of better diet, improved health and less reliance on imported perishables will be considerable (Walsh and Jha, 2012 & (Mazumder & Lu, 2015). Government intervention in supporting a more open market is a necessary component of a sustainable solution for the cash poor families to 'ginger up' their local economies. This will have direct impact on the agricultural jobs in the region. An increase in agricultural activity will affect employment opportunities and may translate to downstream processing activities (Walsh and Jha, 2012).

Investment in lifestyle changes is not a one-off capital injection. A loan to buy a female kid (goat) can be a start. Support for good nutrition, access to good semen for breeding, basic equipment for milk collection and distribution/sale and care for kids will require ongoing investment. A small enterprise that is successful will repay the capital and interest. If it grows larger, then there is likely to be ongoing leverage required and this is good business for the MFI.

Poultry farming – duck, chicken or geese – can provide a source of protein to the family and produce for sale. When planned and managed at the local level it is obvious that not every poultry owner needs a drake, rooster or gander. The possibility of borrowing with payment in kind for the service can lead to further spin-off business.

Cash crops offer potential and do not necessarily require much land to get started. Roof gardens are common and there is potential to improve with a small injection of capital for quality seedlings and nutrients. The conversion of livestock manure through composting or liquefying is a basic source of nutrients. There is the potential for commonalities. If peas are grown, then pea-hay provides a good source of feed for livestock during the winter months.

MFI credit and on the ground agricultural extension advice is important. In communities where literacy is low schooling is unlikely to provide the necessary knowledge and skills to bolster production, manage risks and improve productivity. MFIs individually or jointly supporting extension services can assist in remedying the knowledge/skill gaps.

Progress is happening in some matters as shown in Table 4, which presents several performance metrics. There additional MFI activities, including both more staffing and lending but there is no evidence indicating an inclusion of the rural poorest of the poor. Delays are costly in terms of quality of life –morbidity rates, health, education and social structures and national cohesion

The number of staff in MFIs has increased due to the number of registered MFIs increasing from 18 in 2010 to 37 in 2014. The Table 4 progress report shows that total staff involvement in MFIs increased from 3296 to 5715, which is 31% and 32% for 2013 and 2014 respectively. There is a significant jump of 78% in MFI branch establishment from 2012 to 2014. The number of centers increased by 42% for 2013 and reduced by 29% in 2014. The sharp downfall in members, number of borrowers and number of passive members points to a potential ineffectiveness in MFIs' programs. The closing of centers and staff inefficiency in promoting outreach to the neediest people remains a concern. MFIs' distribution of the microfinance loan improved 41% and then dropped 36% in 2014. This is indicative of the MFI focus towards a profit objective in making loans rather than prioritizing an outreach perspective.

Microfinance loans repaid dropped in 2014 to 30% from 42% in 2013 and outstanding MFI loans increased to 84% in 2014 from 30% in the previous year. Loan loss provision in 2014 reached 31%, up from 15% in 2013. These figures do raise some concerns about MFIs' staff efficiency and program effectiveness in urban as well as rural areas. The number of depositors declined to 27% in 2014 from 31% in 2013, which would be concerning if it becomes a trend. The total saving-to-total-loan ratio reduced in 2014 to 28% from 31% in 2012. This is only a small reduction and when combined with the share of compulsory savings in total savings the decline does start to raise concerns. The proportion of compulsory savings to total saving assumed to be MFIs borrowers, reduced to 35% in 2014 from 38 % in 2013 and 41% in 2012.

10. WHY DOES MICROCREDIT NOT REACH MANY OF THE POOR?

Rural poor in Janakpur, indicated they did not join the programs because they lacked the skills in the particular specified program or they lacked labor resources as family members were already fully committed and sometimes out of Nepal. Some mentioned that they are afraid of the consequences if they failed to meet a loan repayment. Most people did not want to join the program because they thought MFIs charged high interest rates. Prospective borrowers can readily compare the cost related to a loan with of the charges made by local moneylenders but the knowledge to do this is not available. Rules and regulations that borrowers must accept when taking the loan from an institution appear too demanding compared with the flexibility of moneylenders. An MFI loan is formal and does not give a grace period to commence making loan instalments, and this gives a bad impression of the MFI program vis a vis moneylenders. People preferred not to deal with an MFI even when one became available.

Another perspective respondents gave was that the staff of these institutions were picky and did not reach out to the households of the rural poor. It is because of the pressure placed on field staff from their senior officers to collect loan repayments and to make sure people do not default. If Field staff performance measured by the percentage of repayment of the loan and no defaults, then an adverse selection failure arises. Prospective borrowers who appear most likely to repay the loan and exhibit low default risk get the money. The poor and unskilled rural people who are the target clients are excluded.

Partnering arrangements with the local communities for MFIs that have a policy to encourage local people to take responsibility to ensure payment of loans are difficult. When requested to be local representatives there is general reluctance, on the part of villagers, to take on the task. The possibility of default discourages village members from wanting to be responsible for uncomfortable action. The confidence level of repayment on a group loan diminishes with individual member's poverty level. MFI field staff play a significant role in choosing groups and their respective members. If non-performing loans have a bearing on the field staff's performance record there is low risk taking. Typically, there is no confidence that the poorest people will make their loan repayments on time, which effectively excludes them from consideration for taking out loans. Barriers within the MFI and doubts in the community combine to ensure a maintenance of the moneylender hold on the poor and social pressures from short-term migratory labor continuing.

Table 4. MFIs in Nepal

Indicator	***2014***	***2013***	***2012***	***2011***	***2010***
No. of MFIs	37	31	24	21	18
				Changes	
				2013	2014
Total no. of Staff	5715	4319	3296	0.31	0.32
No. of Branches	1062	813	598	0.36	0.31
No. of Centers	73076	56503	39895	0.42	0.29
No. of Groups	290368.2	280871.2	215128	0.31	0.03
No. of Passive Groups	11020	9959	8844.4	0.13	0.11
No. of Members	1476636.85	1542345	1163712	0.33	-0.04
No. of Passive Members	52846	68543	61811	0.11	-0.23
No. of Borrowers	1030914	1060315	848974	0.25	-0.03
Total loans disbursed	249169122	181155300.9	129519366.8	0.40	0.38
Microfinance Loan	201572927.3	147887362.6	104856050.1	0.41	0.36
Micro Enterprise Loan	16610437.93	11301362.11	7900618.787		
Other Loan	30985756.73	22789231.14	16762697.91		
Loans Recovered	199152117.7	149228936.1	108504536.3		
Microfinance Loan Repaid	164999794.1	127082834.6	89545338.64	0.42	0.30
Micro Enterprise Loan Repaid	11323438.36	7865274.145	5786789.956		
Other Loan Repaid	22828885.25	14280881.88	13172407.66		
Total Loans Outstanding	50302718.17	31926362.24	21014830.54		
Microfinance Loan Outstanding	36753899.68	19984277.54	15317580.39	0.31	0.84
Micro Enterprise Loan Outstanding	5394309.343	3436076.441	2109430.783		
Other Loan Outstanding	8154509.148	8506008.42	3597397.82		
Overdue Loan	470825.3157	527067.1495	668542.7994		
No. of Overdue Borrowers	32742	30044	52585		
Total Interest Recovered	12258424.1	8552126.779	5595176.416		
Total Due Interest	474816.965	450136.9224	468863.9296		
Loan Loss Provision	1058900.39	807060.935	702705.4045	0.15	0.31
No. of Depositors	1451453.5	1142160	866222	0.32	0.27
Total Savings	14200338.24	9917091.892	6409471.449		
Compulsory Saving	5019172.834	3793767.201	2600161.822		
Optional Saving	4659335.561	3253525.832	2200609.475		
Other Savings	3731066.188	2338395.547	1265497.466		
Saving from People	790763.6595	531403.3114	343202.6858		
Total Saving/Total Loan %	28%	31%	30%		
Total Microenterprises Loan/Total Loan %	11%	11%	10%		
Microfinance Loan / Total Loan Outstanding	73%	63%	73%		
Compulsory Saving in Total Savings Ratio	35%	38%	41%		
Loan Recovered Ratio	83%	85%	83%		
Loan Recovered to loan disbursed ratio	82%	86%	85%		

Data source: (Nepal Rastra Bank, 2014b; Nepal Rastra Bank, 2014c; Nepal Rastra Bank, 2014d)

11. SUMMARY

Nepal through recognizing short-term migratory labor, as an economic and social cohesion issue can promote the alternative model of an enhanced quality of life for rural poor through the provision of connecting sources of cash, viz. microfinance. This requires no additional organization or large-scale bureaucratic injection of resources. Rather it requires MFIs to say collectively that they will move to address the problem of rural poor in selected regions. There are establishment costs as there are no offices or personnel in the remote regions.

MFIs, in the modern sense, emerged with a mission of providing low interest loans to the poorest of the poor. They were, and are, a key component of financial inclusion. However, when financial performance becomes the key consideration above outreach, then managing risk gains greater sway. There tends to be a safety first goal in lending and this almost inevitably results in an urban drift. Also if MFI staff receive bonuses for achieving lending targets, then this sends a clear signal, encouraging staff to maximize safe lending rather than promoting outreach to the poor.

There is a lack of goal congruence for Nepalese Government, Central Bank, and MFI boards and management. Regulation and directives generate adverse selection outcomes and the way forward requires an incentivizing of MFI activities in rural communities, which is largely fiscally neutral and has minimal monitoring costs. A trickle-down effect could be helpful and may start to build some confidence among Nepal's poor population that MFIs can be trusted and they can be working partners, because they encourage increased employment through the MFIs' financial services activities and income generation opportunities.

The village committee team, which is the hallmark of rural lending by sub-Sahara African MFIs, has potential at the village level. Where there is an informal financial sector operating, e.g. a moneylender, then it may be possible to license them to be an MFI representative. It would be a first step toward more financial formality and, more importantly, open a low cost channel to the village poor. Structuring the remuneration to achieve goal congruence between loan shark and MFI may prove interesting but it is unlikely to be insurmountable. For the moneylender, a move to cooperation rather than regulatory interference is preferable.

An adaption of the adage "that money makes the world go round" for rural Nepal could be "a lack of money makes the people go around".

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SHORT-RUN UNDERPRICING AND ITS DETERMINANTS: EVIDENCE FROM AUSTRALIAN IPOS

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Abstract

To find out whether the Australian IPOs are underpriced and what the determinants are, this study investigates the short-run market performance of 254 IPOs by industry, listing year and issue year over the period 2006 to 2011.To measure the short-run performance, the first listing day returns are divided into the primary market which is calculated based on the first day beginning prices and issue prices, the secondary market which is estimated based on the first day closing and opening prices and total market which is calculated based on the first day closing prices and issue prices. Then it is extended to the post-day listing analysis which includes returns up to 10 days. To find out the determinants of underpricing, this study estimates binary and multiple regression models with the offer, firm and market characteristics. The marginal probability analysis was also carried out to estimate the associated probability of each determinant which shows a directional change in the short-run market performance. The study found that overall the Australian IPOs are underpriced by 25.47% and 23.11% based on the average abnormal return (AAR) in the primary and total market, which is statistically significant at 1% and 5% level respectively. However, the secondary market analysis indicates that the Australian IPOs are overpriced by 1.55% on the AAR and it is statistically significant at 5% level. The examination of post listing returns shows that Australian IPOs are underpriced based on the average cumulative abnormal return (CAR) and it signals that investors' wealth can be diluted due to overpricing in the long-run. The primary, total and post listing analysis shows that the industrial sector IPOs are more attractive to investors whereas the chemical and material sector IPOs are less attractive compared to other sectors. The IPO period, time to listing, listing delays, total net proceeds ratio, issue price, attached share option and the market volatility are the main determinants for the observed underpricing. The marginal probability analysis also shows that market volatility and total net proceeds ratio have a significant impact on the level of underpricing. As far as the investors' wealth is concerned, the study shows that the short-run market performance analysis should consider both the first day return including primary and secondary market and the post-day return. Study concludes that short-run market performance is sensitive to the market, industry and listing & issue year and determinants to the model.

Keywords: Australian IPOs, Underpricing, Binary Models, Marginal Probability Analysis
JEL Code: G12, G14, G32

1. INTRODUCTION

The evaluation of the short-run market performance of IPOs[13] has been paid much attention in prior studies due to the wealth of initial investors in different countries. Underpricing[14] of IPOs is widely accepted as a short-run market phenomenon which is also considered as a universal phenomenon. This phenomenon was first documented in the finance literature by Stoll and Curley(1970), Logue(1973), Reilly(1973) and Ibbotson(1975). To test the underpricing phenomenon, most of the researchers used the first listing day average return which is defined as the closing price performance which covers the period from issuing date to ending of the first trading day[15] [Ritter (1987), Finn and Higham (1988), Ibbotson, Sindelar and Ritter (1994), Lee, Taylor & Walter(1996), Chan, Wang and Wei (2004), Omran (2005), Dimovski and Brooks(2005), Loughran and Schultz (2006), Chang et al.(2008) and Moshirian, Ng & Wu (2010),].

[13] An IPO, refer as initial public offering which is the first sale of a corporation's equity shares to investors on a public stock exchange and it is known as unseasoned equity.

[14] Dimovski and Brooks (2004) stated that the issue price of a newly listed company's shares being below the price at the shares subsequently trade is known as underpricing. The underpricing is considered as transferring wealth from issuing firm to initial IPO investors.

[15] The positive (negative) average return of the first listing day is known as the underpricing (overpricing).

However, analysing the short-run market performance based on the first-day return may not provide sufficient information to investors. The reasons are that (1) the investors do not know much about the newly listed companies, (2) the motive of speculative investors in the very first day to earn higher profit, (3) the market needs to have a reasonable time period to settle down in the short run, (4) this closing price performance (first day return) does not provide clear an answer who is the beneficiary of short-run underpricing, and (5) the price variation in the beginning and closing of the first trading day.

In order to overcome the reasons (1), (2) and (3) which are associated with the first day return, some researchers suggested to extend the evaluation period from the first day return to the post-listing day return. Ritter (1991) also documented that short-run market performance can be evaluated using an initial period including both first day and post-day return. Thus, they have used both the first day return and the post-day return to measure the short-run market performance [Sohail, Raheman and Durrani(2010); Kenourgios, Papathanasious and Melas (2007); Aktas, Karan and Aydogan(2003); Finn and Higham (1988)]. The post-day return is calculated as the cumulative abnormal return (CAR) and buy-and-hold return (BHR).To overcome the reasons (4) and (5), other researchers have argued that the short-run market performance should be evaluated using opening price performance which splits the first day return into two parts such as the first day primary market return and the secondary market return. The primary market return covers the period from the issuing date to the beginning of the first trading date and the secondary market covers from the beginning to ending of the first trading date. Therefore, Edwards and Hanley (2010), Bradlet et al. (2009), Chang et al. (2008), Aggarwal and Conroy (2000), Schultz and Zaman (1994) and Barry and Jennings (1993) have used the opening price performance which includes primary (offer-to-open) and secondary (open-to-close) market returns.However, a review of past Australian IPO studies has indicated the followings: (1) the short-run market performance has not been evaluated using the opening price performance such as the first day primary market return and the secondary market return and (2) the post-day return has been given less attention to evaluate the short-run market performance. This type of IPO short-run market performance analysis could provide more valuable information for investors.

Having indentified the importance of analysing the short-run underpricing (short-run market performance) using the first day primary market, secondary market, total market and post-day returns, it is necessary to find out the resons for underpricing. Ritter (1998) and Ritter and Welch (2002) studies provided a list of asymmetric information theories such as the winner's curse, signalling, uncertainty, agency cost etc. to explain the resons (determinants) for the short-run underpricing. These theories have been tested by many IPO researchers developing multiple regression models with different determinants. However, the multiple regression model identifies only the determinants but it does do not provide the associated marginal probabilities (risks) of determinants which shows the changes in underpricing. These marginal probabilities are more important for IPO investors due to the change in economic and financial factors which cause higher uncertainity in the IPO market.Therefore, some researchers have used binary regression models to estimates the associated probability of occurrence compared to the multiple regression model, providing more information to IPO investors for their investment decisions. The marginal probability shows the directional changes in the short-run market performance, which is used to find out which is the most important determinants that causes the changes in underpricing. A review was undertaken on previous Australian IPO studies shows that the determinants of short-run underpricing have not been analysed with the aid of a combination of binary regression and marginal probabilty analysis.

Therefore, this research paper seeks to examine (1) whether Australian IPOs are underpriced in the short-run using the first day primary market return, secondary market return, total market return and the post-day return and (2) what are the reasons for short-run underpricing with the aid of logit and probit binary regression models and a marginal probability analysis. The post-day returns are calculated up to 9 trading days after the first listing day. The average market adjusted abnormal return (AAR) is used to measure the short-run performance in the first day primary market, secondary market and total market and the average cumulative abnormal return (CAR) used in the post-listing period.

The remainder of this article is organized as follows. Section 2 reviews the evidence on underpricing. Section 3 covers the data and methodology. Section 4 discusses the results and analyses and section 5 concludes.

2. EVIDENCE ON SHORT-RUN UNDERPRICING

The Australian IPO market has been widely examined by many researchers over the past years. Finn & Higham (1988) reported that Australian industrial and commercial IPOs are underpriced by 29.2%. Lee et al.(1996), How et al. (1995) and Dimovski et al. (2011) also reported that the industrial sector IPOs are underpriced in the short-run market by 11.86%, 19.74% and 29.6% respectively. However, Dimovski and Brooks (2008) and How (2000) documented that mining IPOs are underpriced by 13.3% and 107.18% and respectively. Nguyen et al. (2010) found that resource IPOs are underpriced by 16.13%. Dimovski and Brooks (2005) and Dimovski and Brooks (2004) also found that Australian mining and energy IPOs and industrial and resource IPOs are underpriced by 17.93% and 25.6% on the first day return respectively. Silva Rosa et al. (2003) reported that venture capital-backed and non-venture capital-backed IPOs are underpriced by 25.47% whereas Gong and Shekhar (2001) found privatized IPOs are underpriced by 11.96%. Bird and Yeung (2010) and Bayley et al. (2006) also found that Australian IPOs are underpriced by 37.35% and 26.72% respectively.

US IPO market has been researched extensively by many researchers over the last two decades. Johnston and Madura (2002) have studied the internet and non-internet IPOs during the period of 1996 to 2000 and the study shows that the initial returns are more favourable for internet than non-internet firm IPOs. Further, the study shows that the level of underpricing of internet firms does not become statistically significant due to the demise of the internet sector. They investigated a sample of 366 IPOs and the average initial return was 78.5 per cent. The US IPO market was also analysed by Loughran & Schultz (2006) and Ritter & Welch(2002) who reported that the average initial day returns were 18.1 per cent and 18.8 per cent respectively. Further, Ibbotson(1975), Ritter (1987), and Ibbotson, Sindelar & Ritter (1994) reported that initial day returns are between 11.4 per cent and 47.8 per cent.

Moshirian, Ng and Wu (2010) examined the price performance of emerging and developed Asian markets and found that China, Korea, Malaysia, Hong Kong, Japan and Singapore are underpriced on the first day returns by 202.93%, 70.3%, 61.81%, 21.43%, 34.04% and 33.10% respectively. The study of Sohail, Raheman and Durrani (2010) indicated that Pakistan IPOs are underpriced under the general state of economy by 42.17%, 40.99%, 37.35%, 38.17% and 39.38% on the close of 1st, 5th, 10th, 15th & 20th days respectively. Chan, Wang and Wei (2004) also analysed the Chinese IPO market and found that the average level of underpricing in A-shares and B-shares are 178% and 11.6% respectively. Further, Banerjee, Hansen and Hrnjic (2009) found that on average investors of Singaporean IPOs out-perform (underpricing) in the short-run.

The evidence from the international literature on underpricing shows that the level of underpricing and its determinants could vary according to the sample period, state of the economy, nature of the market, industry etc. Therefore, there is a need to measure the level of underpricing and find out its determinants by market in the current time period due to the different state of economic condition.

3. DATA AND METHODOLOGY

3.1. Data and Sample Selection

In order to analyse the short-run market performance of Australian IPOs, all IPO data was collected from the Connect 4 database (www.connect4.com.au) which is more specialised for IPOs. The study examines listed fixed price offering equity[16] IPOs in the Australian securities exchange (ASX) from January 2006 to January 2011. A sample is selected based on the random sampling method by industry or sector as a main criterion. To analyse IPOs by industry, all the listed IPOs during this period are sub divided into seven sectors using the industry criterion. The financial sector IPOs and the property & equity trust or close-End funds IPOs are excluded from the sample following the other researchers (Dimovski and Brooks, 2004 and Ahmad-Zaluki, Campbell and Goodacre, 2007)[17]. Mergers, takeovers and restructuring schemes are also eliminated from the sample because it undeservedly impacts on the IPO companies' performance. Due to the large number of listed IPOs in the resource sector, the selected sample from this industry represents only 33% of the total listed IPOs while other sectors represent 100%. Finally, we selected 254 IPO for this study as a sample based on the availability of data which represents 47% of the total listed IPOs in January 2006 to January 2011.

The table 2 shows the number of sample companies, offer proceeds (issue price per share * number of issued shares) and money left on the table (the first day returns in terms of AUS $) which are classified by industry, listed year and issued year. In comparison of number of IPOs with the offer proceeds by industries, the resource sector has 56% of the sample IPO companies but it gives only 12% of the total sample offer proceeds. Industrial sector represents 18% of the sample IPO companies and it contributes 65% of the total sample proceeds which is the highest offer proceeds under the industries. The industrial sector has the highest value for money left on the table compared to all other sectors which shows that on an average market price of industrial sector is higher than other sectors. The utility sector indicates a negative value for the money left on the table which shows the wealth of the investors in this sector diluted compared to all other sectors. When examining the listing years, money left on the table has the negative values in 2010 and 2011 due to higher issue price compare to the first listing day market price. Issue years 2008 and 2010 have the negative values for money left on the table due to higher issue prices.

3.2. Methodology

Having selected the sample of IPO companies by industries, listing years and issue years, then the market prices of sample companies were selected from the Morningstar database (www.morningstar.com.au).To measure the market performance of IPOs, this study selected the first day adjusted[18] opening and closing market prices, and the post-listing day adjusted prices.

In order to calculate abnormal returns, the first listing day primary, secondary market and total market raw returns are calculated using the following equations.

$$PR_i = \frac{P_{i,b} - P_{i,o}}{P_{i,o}} \tag{1}$$

Where,
$\boldsymbol{PR_i}$ = the first listing day primary market raw return for security i measures between the issue price and beginning of the first listing day price

[16] An IPO in which the price is set and quoted in the prospectus and remains unchanged until completion of the offer.

[17] These researchers mentioned that IPOs in Finance, Trust, and Closed-Ends Funds sector are not comparable with non-financial companies. These companies' annual reports are normally prepared according to the different statutory requirements.

[18] Adjusted prices are those prices adjusted for any dilution factors such as bonus issues, rights issues, options etc.

$\boldsymbol{P_{i,b}}$ = the beginning price of security i at the first listing date
$\boldsymbol{P_{i,o}}$ = the issue (offer) price of security i at the time of issue

$$SR_i = \frac{P_{i,c} - P_{i,b}}{P_{i,b}} \quad (2)$$

Where,
$\boldsymbol{SR_i}$ = the first listing day secondary market raw return for security i measures between the beginning price and the closing of the first listing day
$\boldsymbol{P_{i,c}}$ = the closing price of security i at the first listing day
$\boldsymbol{P_{i,b}}$ = the beginning price of security i at the first listing date.

$$TR_i = \frac{P_{i,c} - P_{i,o}}{P_{i,o}} = [(1 + PR_i) \times (1 + SR_i)] - 1 \quad (3)$$

Where,
$\boldsymbol{TR_i}$ = the first listing day total market raw return for security i measures between the issue price and closing of the first listing day price
$\boldsymbol{P_{i,c}}$ = the closing price of security i at the first listing day
$\boldsymbol{P_{i,o}}$ = the issue (offer) price of security i at the time of issue
$\boldsymbol{PR_i}$ = the first listing day primary market raw return for security i
$\boldsymbol{SR_i}$ = the first listing day secondary market raw return for security i

From the above raw returns (PR_i , SR_i and TR_i), the market-adjusted abnormal/ excess returns are calculated to measure the short-run market performance in the primary, secondary and total market. The abnormal/excess return is considered as a superior performance measure relative to the raw return because it adjusts market return of each IPO. The market return can be calculated by using ASX indices such as ASX 200, ASX 300 etc. However, this study used All Ordinary Index as a market benchmark to measure the abnormal/excess market returns because this price index covers 95 per cent of the listed company prices in the ASX (http://en.wikipedia.org/wiki/All_Ordinaries). All Ordinary Index were obtained from the DataStream database. The following equations are used to calculate the market-adjusted abnormal (AR) return and the market-adjusted average abnormal return (AAR).

$$AR_{it} = R_{it} - R_{mt} \quad (4)$$

Where,
$\boldsymbol{AR_{it}}$ = the market-adjusted abnormal rate of return for company (i) in period (t)
$\boldsymbol{R_{it}}$ = the rate of return for company (i) in period (t) from PR_i, SR_i, and TR_i
$\boldsymbol{R_{mt}}$ = the rate of return on the benchmark (market) during the corresponding time period (t)

$$AAR_t = \frac{1}{n}\sum_{i=1}^{n} AR_{i,t} \quad (5)$$

Where,
$\boldsymbol{AAR_t}$ = the market-adjusted average abnormal return, **n** = the number of IPO companies in period (t)

To determine whether the average raw and abnormal returns are statistically significant, this study uses the following t-statistics [Ritter(1991), Brown and Warner (1985), Omran (2005)].

$$t(AAR) = AAR_t * \frac{\sqrt{n_t}}{\sigma_t} \quad (6)$$

Where,
$\boldsymbol{AAR_t}$ = the market-adjusted average abnormal return for day t
$\boldsymbol{\sigma_t}$ = the cross-sectional standard deviation of the return for day t.

From the above market-adjusted average abnormal return, this study calculates the cumulative market-adjusted average abnormal return(CAR) following the past studies [Ritter(1991) and Aktas, Karan and Aydogan(2003)]. This measure is useful to analysis the short-run performance of IPOs after the listing. Therefore, the CAR is calculated for nine post-listing days by using the following equation[19].

$$CAR_{q,s} = \sum_{t=q}^{s} AAR_t \quad (7)$$

Where,
$\boldsymbol{CAR_{q,s}}$ = the market-adjusted post-day listing return (performance) from event day q to event day s

The t-statistic for the cumulative market-adjusted average abnormal return is computed as follows [Aktas, Karan and Aydogan (2003)].

$$t(CAR) = \frac{CAR_t}{\sigma(CAR)_t} \quad (8)$$

Where,
$\boldsymbol{\sigma(CAR)_t} = \sigma(AR)_t * (t+1)^{1/2}$
$\boldsymbol{\sigma(AR)_t}$ = the variance of market-adjusted abnormal return over t days

The short-run market performance models are estimated by using the binary and multiple regression statistical models. The binary models are estimated using logit and probit regression models and multiple regression models are estimated using the Ordinary least square (OLS) method. The dependent variable in the binary models is defined as "1" and "0".The underpricing[20] is considered as "1" and overpricing as "0". The dependent variable of the multiple regression models is taken as natural log value of market-adjusted abnormal returns in the short-run market. The explanatory variables in all these models are given the in table 2. In addition to these explanatory variables, the industry represent dummy variables are also tested with these models with a view to capture the industry effect. The binary and multiple regression models are estimated with the Eviews (version 7) statistical package. The determinants of the short-run underpricing (short-run market performance) can be identified with aid of the binary and multiple regression models.

[19] The CAR is calculated after considering the first listing day total market return (TR).
[20] The Underpricing (overpricing) is defined as positive (negative) market-adjusted abnormal returns in the short-run IPO market

Table 2: Issue, firm and market characteristics

Explanatory variables	*Variable in the model*	*Variable measure*	*Expected sign*	*Variable proxy for theory*
Issue Characteristics				
IPO period (time given to invest)	IPOP	Period from opening to closing days of the offer which is measured in calendar days	Negative	Rock hypothesis
Oversubscription ratio	OVER	Number of demand shares over the number of shares offered	Positive	Signalling hypothesis/Rock hypothesis
Issue price	*ln* (PRICE)	Offer price of the issue	Negative	Signalling hypothesis/Uncertainty hypothesis
Offer size	*ln* (OSIZE)	The number of offered shares x issue price	Negative	Uncertainty hypothesis
Listing delay	LISD	Time period between the proposed listing date and the actual listing date which is measured in business days	Positive/ negative	Uncertainty hypothesis/Rock hypothesis
Total listing period (time to listing)	TOTP	Time period between the issued date and the listed date which is measured in business days	Negative	Rock hypothesis
Issue cost ratio	ICOR	Total Issue cost relative to the total offer proceeds. The total issue cost includes ASIC fee, ASX fee, broker commission, manager fee, annual report fee, legal cost, industry report fee, printing fee, other cost	Positive	Uncertainty hypothesis
Total net proceeds ratio	TNPR	1 minus issue cost ratio	Negative	Uncertainty hypothesis
Underwriter availability	UWRA	This is a dummy variable which defines 1 for "underwritten IPOs" and 0 for 'Not underwritten IPOs "	Positive	Signalling hypothesis
Attached share option availability	ATOA	Some issued IPOs are attached with a free share option and some are not. This is a dummy variable which defines 1 for "yes" and 0 for 'No"	Negative	Agency-cost hypothesis
Oversubscription option availability	OVSO	Some IPOs are accepted oversubscription and some are not. This is a dummy variable which defines 1 for " yes" and 0 for 'No"	Positive	Signalling hypothesis/Rock hypothesis
Recover of working capital	WICP	Some issued IPOs recover their working capital needs from the initial issued capital and some are not. This is a dummy variable which defines 1 for "Yes" and 0 for 'No"	Positive	Uncertainty hypothesis
Firm Characteristics				
Book value per share	*ln* (BOOKV)	Total equity capital divided by the number of equity shares	Positive	Signalling hypothesis
Original ownership	OWSH	Percentage of shares retained by original owners	Positive/ negative	Signalling/agency-cost /ownership dispersion hypothesis
Firm Age	*ln* (1+FAGE)	Number of years between the year of creation and listing	Negative	Uncertainty hypothesis
Firm size	*ln* (FSIZE)	Total assets at the end of the year preceding the IPO of an issuing firm	Negative	Uncertainty hypothesis
Market Characteristics				
Market volatility	MV	Standard deviation of daily market returns over the two months before the closing date of the offer	Positive	Uncertainty hypothesis
Average market return	RETU	Square value of the average daily market returns over the two months before the closing date of the offer	Positive	Uncertainty hypothesis
Market sentiment	MS	Changes in the All Ordinary Index (AOX) from the date of the issue to the AOX to the day of the listing	Positive	Uncertainty/Signalling hypothesis
Hot issue market	HC	Hot issue market is identified as issue year using IPO volume and first day return where number of IPOs and average first day returns (in the sample) are greater than the sample's average. This is a dummy variable which defines 1 for "hot issue market" and 0 for "otherwise"	Positive	Hot issue market hypothesis

Table 3. Number of sample companies, offer proceeds and money left on the table by industry, listing year and issue year

Sample Classification	*Number of IPOs*	*%*	*Offer Proceeds[1] (AU$ 000')*	*%*	*Money left on the table[2] (AU$ 000')*
By Industry					
Resources (Energy, Metals & Mining)	143	56%	1279743	12%	113727
Chemicals/Materials	4	2%	953400	9%	113042
Industrials	46	18%	6717995	65%	190481
Consumer Discretionary/Staples	31	12%	588975	6%	72296
Information Technology	20	8%	645582	6%	96831
Telecommunication	4	2%	22573	0%	2749
Utilities	6	2%	79750	1%	-7020
Total	**254**		**10288018**		**582106**
By Listing Year					
2006	68	27%	2856066	28%	216233
2007	91	36%	1607983	16%	244248
2008	29	11%	361219	4%	166584
2009	17	7%	368500	4%	45445
2010	41	16%	5045650	49%	-85511
2011	8	3%	48600	0%	-4893
Total	**254**		**10288018**		**582106**
By Issue Year					
2005	9	4%	53296	1%	19299
2006	69	27%	2887770	28%	191578
2007	96	38%	1666183	16%	421421
2008	19	7%	272019	3%	-10911
2009	16	6%	332000	3%	52203
2010	45	18%	5076750	49%	-91484
Total	**254**		**10288018**		**582106**

Note:

1. Issue price per share X Number of issued shares

2. Money left on the table indicates the first day returns in terms AU $ earned by initial investors. This is calculated by: (Market price per share - Issue price per share) X Number of issued shares

Multiple regression Model

$$\begin{aligned} ln[R_i] = \alpha &+ \beta_1 IPOP_i + \beta_2 OVER_i + \beta_3 lnPRICE_i + \beta_4 lnOSIZE_i + \beta_5 LISD_i + \beta_6 TOTP_i + \beta_7 ICOR_i + \beta_8 TNPR_i \\ &+ \beta_9 UWRA_i + \beta_{10} ATOA_i + \beta_{11} OVSO_i + \beta_{12} WICP_i + \beta_{13} lnBOOKV_i + \beta_{14} OWSH_i \\ &+ \beta_{15} ln(1+FAGE_i) + \beta_{16} lnFSIZE_i + + \beta_{17} MV_i + \beta_{18} RETU_i + \beta_{19} MS_i + \beta_{20} HM_i + \sum_{i=1}^{6} \beta_i D_i \\ &+ \varepsilon_i \end{aligned} \tag{9}$$

Logistic Model

$$\begin{aligned} ln\left[\frac{P_i}{1-P_i}\right] = \alpha &+ \beta_1 IPOP_i + \beta_2 OVER_i + \beta_3 lnPRICE_i + \beta_4 lnOSIZE_i + \beta_5 LISD_i + \beta_6 TOTP_i + \beta_7 ICOR_i + \beta_8 TNPR_i \\ &+ \beta_9 UWRA_i + \beta_{10} ATOA_i + \beta_{11} OVSO_i + \beta_{12} WICP_i + \beta_{13} lnBOOKV_i + \beta_{14} OWSH_i \\ &+ \beta_{15} ln(1+FAGE_i) + \beta_{16} lnFSIZE_i + + \beta_{17} MV_i + \beta_{18} RETU_i + \beta_{19} MS_i + \beta_{20} HM_i + \sum_{i=1}^{6} \beta_i D_i \\ &+ \varepsilon_i \end{aligned} \tag{10}$$

Probit Model

$$\begin{aligned} P_i = \alpha &+ \beta_1 IPOP_i + \beta_2 OVER_i + \beta_3 lnPRICE_i + \beta_4 lnOSIZE_i + \beta_5 LISD_i + \beta_6 TOTP_i + \beta_7 ICOR_i + \beta_8 TNPR_i \\ &+ \beta_9 UWRA_i + \beta_{10} ATOA_i + \beta_{11} OVSO_i + \beta_{12} WICP_i + \beta_{13} lnBOOKV_i + \beta_{14} OWSH_i \\ &+ \beta_{15} ln(1+FAGE_i) + \beta_{16} lnFSIZE_i + + \beta_{17} MV_i + \beta_{18} RETU_i + \beta_{19} MS_i + \beta_{20} HM_i + \sum_{i=1}^{6} \beta_i D_i \\ &+ \varepsilon_i \end{aligned} \tag{11}$$

Where, $\boldsymbol{R_i}$ is market-adjusted abnormal returns (AR) or cumulative abnormal returns (CAR), $\boldsymbol{ln[R_i]}$ is the natural log value of the AR or CAR, $\boldsymbol{P_i}$ is the probability of underpricing (1) occurs in the short-run market, $\boldsymbol{1-P_i}$ is the probability of underpricing does not occur or the overpricing (0) occurs in the short-run market, $\boldsymbol{ln\left[\frac{P_i}{1-P_i}\right]}$ is the natural log value of the odds ratios (in other words the probability of occurring) for the event of underpricing (1) occurrence, $\boldsymbol{IPOP_i}$ is a period from opening to closing days of the offering firm i, $\boldsymbol{OVER_i}$ is the oversubscription ratio of firm i, $\boldsymbol{lnPRICE_i}$ is the natural log value of the offer price of firm i, $\boldsymbol{lnOSIZE_i}$ is the natural log value of the offer size of firm i, $\boldsymbol{LISD_i}$ is the period of listing delay of firm i, $\boldsymbol{TOTP_i}$ is the total time period for listing of firm i, $\boldsymbol{ICOR_i}$ is the issue cost ratio of firm i, $\boldsymbol{TNPR_i}$ is the total net proceeds ratio of firm i, $\boldsymbol{UWRA_i}$ is the underwriter availability of the offer in firm i, $\boldsymbol{ATOA_i}$ is the attached share options available with the offer of firm i, $\boldsymbol{OVSO_i}$ is the oversubscription option of firm i, $\boldsymbol{WICP_i}$ is the working capital recovery from the offer proceeds of firm i, $\boldsymbol{lnBOOKV_i}$ is the natural log value of the book value per share of the firm i, $\boldsymbol{OWSH_i}$ is the original ownership of firm i, $\boldsymbol{ln(1+FAGE_i)}$ is the natural log value of the age of issuing firm i, $\boldsymbol{lnFSIZE_i}$ is the natural log value of the size of issuing firm i, $\boldsymbol{MV}$ is the market volatility, $\boldsymbol{RETU}$ is the average market return before the closing date of the offer, and $\boldsymbol{MS}$ is the market sentiment, $\boldsymbol{HM}$ is the hot issue market dummy, $\boldsymbol{D_i}$ = industry dummy variables such as $\mathbf{D}_1$=dummy for resource industry, $\mathbf{D}_2$= dummy for chemical/material industry , $\mathbf{D}_3$= dummy for industrial sector, $\mathbf{D}_4$= dummy for consumer discretionary/staples industry, $\mathbf{D}_5$= dummy for information technology industry, and $\mathbf{D}_6$= dummy for utilities industry. The telecommunication industry is captured in the intercept term. $\boldsymbol{\beta_i}$ is the coefficient of the explanatory variables and $\boldsymbol{\varepsilon_i}$ is the error term of the model[21]

The marginal probability analysis is based on the logistic binary regression model and it measures the likelihood of changing in probability (Δp) associated with the underpricing (short-run market performance) due to a change in the explanatory variables. The marginal probabilities are very important for IPO investors for their investment decisions. Therefore, the marginal probability (Δp) has been estimated by using the following probability equations.

$$P_i = \frac{e^{\propto + \sum_{i=1}^{n} \beta_i X_i}}{1 + e^{\propto + \sum_{i=1}^{n} \beta_i X_i}} \tag{12}$$

$$\Delta p = \beta_i P_i (1 - P_i) \tag{13}$$

Where, $\boldsymbol{P_i}$ = the probability of underpricing (1) occurs in the short-run market, $\boldsymbol{\Delta p}$ = marginal probability, $\boldsymbol{\beta_i}$ = Coefficient of each explanatory variables, $\boldsymbol{X_i}$ = the average value of each explanatory variables.

5. RESULTS AND DISCUSSION

This section provides the statistical analysis and the results which are derived from the methodology that are discussed in section 4.2. The discussion on empirical findings of the short-run market performance on the first listing day returns and the post-day listing returns are presented in sections 5.1. The estimated models based on the short-run market returns are discussed in section 5.2. The discussion on the marginal analysis is shown in section 5.3.

5.1. The short-run market performance

The short-run market performance was evaluated by using the first trading day market-adjusted abnormal returns and the post-day cumulative abnormal returns. The findings of the first trading day market-adjusted abnormal returns are discussed under the first day primary market, the secondary market and the total market. Furthermore, the discussion is continued by industries, listing years and issue years under the primary, secondary and total market. The first trading day returns and post-day returns are given in table 4 and 5 respectively.

5.2. The first trading day returns of IPOs

Table 4 shows that sample companies are underpriced in the primary market by 25.47% based on the market-adjusted abnormal return which is statistically significant at 1% level. In comparison with the primary market returns, the Australian IPOs are overpriced in the secondary market by 1.55% which is statistically significant at 5% level. The first day total return indicates that all sample Australian IPOs are underpriced at 23.14% on the market adjusted abnormal return which is statistically significant at 5% level.

If we examine IPOs by industries, in the primary market, the highest level of underpricing can be seen in industrial sector IPOs which is 68.03% based on abnormal returns. However, this underpricing level is not statistically significant. The resources sector IPOs are generally underpriced by 16.64% which is statistically significant at 1% level. The level of underpricing (23.88% on abnormal returns) in the telecommunication sector is also statistically significant at 10% level. The information technology sector IPOs are also underpriced on abnormal returns by 14.14%.In contrast with IPOs in other sectors, the chemical and material sector IPOs are overpriced by 10.91% based on abnormal returns. It is interesting to see that this sector IPOs earned negative returns in the very first day primary market. However, this negative return is not statistically significant. According to the closing price secondary market, the highest average overpricing level on abnormal returns can be seen in the utility sector (7.54%) and the lowest is in the resources industry (0.70%).The average overpricing levels in the chemical & material sector is 6.35%. The overpricing level (4.66% on abnormal returns) in the information technology industry is not statistically significant. In the secondary market, underpricing has not been found in any sectors. Total market return analysis shows that the highest level of underpricing can be seen in the industrial sector IPOs which is 65.31% based on abnormal returns. However, this underpricing level is not statistically significant. The resources sector IPOs are generally underpriced by 15.69% which is statistically significant at 1% level. The levels of underpricing (16.77% based on the abnormal return) in the telecommunication sector is also statistically significant at 10% level. The chemical and material sector IPOs are overpriced by 15.94% based on the abnormal return compared to the other sectors because it gives a negative return for their investors.

The listing year analysis shows that the highest level of underpricing takes place in the primary market in year 2008 based on abnormal returns by 106.37%. This level of returns is not statistically significant. In listing years 2006, 2007

[21] The logit and probit regression models are differ due to the error term of each of the models. The cumulative distribution of the error term can be seen in a logit model and the normal distribution can be seen in a probit model (Kulendran and Wong, 2001, p. 423). Further, they mentioned that the results of these binary models will not vary unless the sample size is large.

and 2010, listed IPOs are underpriced on abnormal returns by 17.62%, 16.38% and 14.02% respectively and these are also statistically significant at 1% level. The IPOs in listing year 2009 are underpriced by 9.1% which is not statistically significant. The Australian IPOs are overpriced in 2011 by 4.12% on abnormal returns. The statistical significance cannot be seen in this overpricing level. The listing year classification of the secondary market shows that IPOs are not underpriced based on abnormal returns in listing year 2008 which is not statistically significant. Statistically significant overpricing levels can be found in 2007 and 2010 only. Listed IPOs in 2007 and 2010 are overpriced by 1.90% and 2.99% respectively. These rates of overpricing are statistically significant at 10% and 5% levels. In the total market, the highest underpricing level in 2008 is 101.26% on abnormal return. But this underpricing level is not statistically significant. Only in listing year 2011, the overpricing is reported as 6.65% which indicates that negative returns are given to investors in this listing year. IPOs are underpriced by 16.85%, 13.83% and 10.60% in 2006, 2007 and 2010 respectively. These levels are also statistically significant at 1% and 5% levels.

When we examine IPOs in the primary market by the issue year, the highest underpricing level can be seen in 2005 based on abnormal both return which is not statistically significant, while the lowest in 2006 which is statistically significant at 5%. The issued IPOs in 2010 are underpriced by 11.15% which is also statistically significant at 1% level. In issued years 2007 and 2009, the IPOs are underpriced by 46.73% and 12.57% respectively which are significant at 10% and 5% levels. In the Australian IPO market, the overpricing has not been found in any issued years because the negative returns have not reported in these periods. Only statistically significant overpricing can be found in the secondary market in issued year 2007 and 2010. In 2007 and 2010, issued IPOs are overpriced by 2.09% and 2.58% respectively and these are significant at 5% level. The IPOs issued in all years are overpriced in the secondary market except in 2008. The first day total market returns analysis shows that the highest level of underpricing can be seen in the issue year 2005 which is 56.06%. However, this underpricing level is not statistically significant. The statistically significant underpricing levels can be found only in issue years 2006, 2007 and 2010. In 2010, the issued IPOs are underpriced by 8.34% which is statistically significant at 1% level. Issued IPOs in 2006 and 2007 are underpriced by 42.58% and 7.37% respectively. These underpricing levels are statistically significant at 10% level. In comparison with the industry and listing year analysis, the overpricing has not been found under the issue year analysis.

5.3. The post-day returns of IPOs

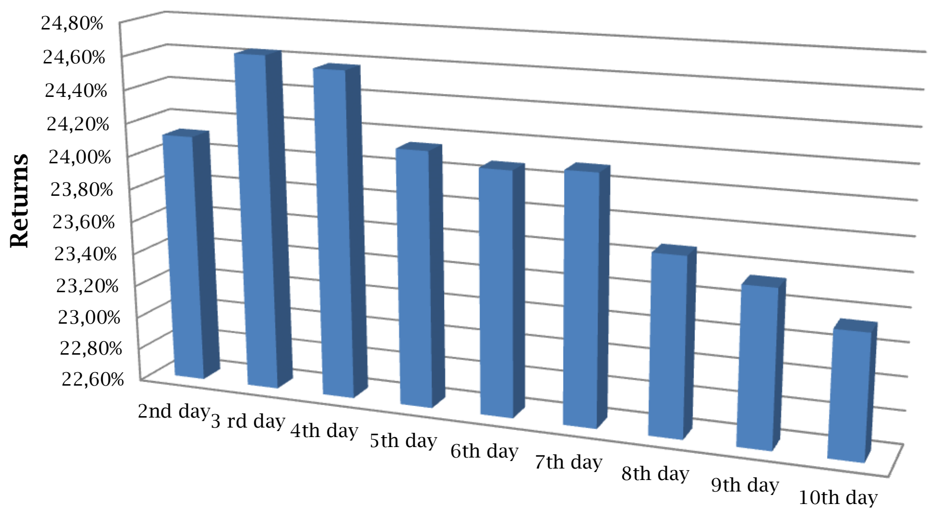
This section analyses the post-day returns by calculating the cumulative abnormal return (CAR) for nine post listing days. The calculated average cumulative abnormal returns of all sample IPOs for the nine post listing days are shown in figure 1.

Table 4. First Trading Day Returns: Primary, Secondary and total Markets

Sample Classification	N	Primary Market		Secondary Market		Total Market	
		AAR (%)	t-stat	AAR (%)	t-stat	AAR (%)	t-stat
All sample companies	254	25.47	2.58***	-1.55	-2.29**	23.14	2.40**
By Industries							
Resources	143	16.64	4.26***	-0.71	-0.76	15.69	3.93***
Chemicals/Materials	4	-10.91	-0.64	-6.35	-2.08	-15.94	-0.96
Industrials	46	68.03	1.31	-1.15	-0.84	65.31	1.28
Consumer Discretionary/Staples	31	18.29	1.40	-1.89	-0.97	13.71	1.42
Information Technology	20	14.14	1.12	-4.66	-1.69	9.80	0.73
Telecommunication	4	23.88	2.38*	-4.56	-0.64	16.77	2.83*
Utilities	6	10.09	0.71	-7.54	-2.00	1.09	0.08
By listing year							
2006	68	17.62	2.58***	-0.60	-0.45	16.85	2.47**
2007	91	16.38	3.79***	-1.90	-1.83*	13.83	3.15***
2008	29	106.37	1.27	0.09	0.04	101.26	1.25
2009	17	9.10	1.35	-2.05	-0.50	9.18	0.91
2010	41	14.02	5.26***	-2.99	-2.06**	10.60	3.58***
2011	8	-4.12	-0.48	-3.28	-1.40	-6.65	-0.75
By Issue year							
2005	9	62.45	1.43	-3.65	-0.59	56.06	1.34
2006	69	7.82	2.13**	-0.58	-0.49	7.37	1.79*
2007	96	46.73	1.84*	-2.09	-2.05**	42.58	1.72*
2008	19	9.42	0.90	0.88	0.23	10.90	0.93
2009	16	12.57	2.23**	-1.36	-0.45	12.20	1.45
2010	45	11.15	3.74***	-2.58	-1.99**	8.34	2.64***

N= Sample size, **AAR**= Average market-adjusted abnormal return
* statistically significant at 10% level,
** statistically significant at 5% level,
*** statistically significant at 1% level

Figure 1. The calculated average CARs for the nine post listing days from 2006 to 2011



The table 4 provides only the post-day listing returns for the 3rd, 6th and 10th days by all sample companies, industries, listing years and issue years. All sample IPO companies are underpriced based on CARs by 24.63%, 24.07% and 23.35% in the 3rd, 6th, and 10th days respectively. However, only day 6 is statistically significant at 10% level. The post-day listing returns of all IPOs are decreasing from the 3rd date to the 10th day.

All IPOs in industries are underpriced except the chemical and material sector. Only IPOs in the industrial sector are statistically significant at 1% level in all three post listing days and underpriced by 68.94%, 67.84% and 66.30% in the 3rd, 6th, and 10th days respectively. The chemical and material industry is overpriced in the 3rd, 6th and 10th days by 16.03%, 18.41% and 23.34% respectively. Only the return in day 6 is statistically significant at 1% level.

The highest level of underpricing is found in the listing year 2008 which is statistically significant at 1% level. In 2008, the average levels of underpricing in the 3rd, 6th and 10th days are 98.97%, 98.21% and 95.91% respectively. The listed IPOs in 2011 are overpriced only in the 3rd day and 6th day and underpriced in the 10th day. However, these overpricing levels are not statistically significant.

The issued IPOs from 2005 to 2010 are underpriced in the 3rd, 6th, and 10th day but issued IPOs only in 2005 are statistically significant in all three days. In 2007, the underpricing levels are statistically significant only in the 3rd and 6th day. The overpricing has not been found in these issue years

Table 5. Post-day Returns

Sample Classification		Day 3		Day 6		Day 10	
	N	CAR (%)	t-stat	CAR (%)	t-stat	CAR (%)	t-stat
All sample companies	254	24.63	1.50	24.07	1.75*	23.35	0.74
By Industries							
Resources	143	17.52	0.99	17.23	1.14	17.00	0.42
Chemicals/Materials	4	-16.03	-1.19	-18.41	-9.32***	-23.34	-1.18
Industrials	46	68.94	5.47***	67.84	6.54***	66.30	5.94***
Consumer Discretionary/Staples	31	11.14	0.58	9.56	0.69	7.34	0.49
Information Technology	20	9.98	1.39	9.83	0.79	10.13	0.90
Telecommunication	4	15.42	1.54	17.26	1.95	13.12	1.60
Utilities	6	6.34	0.26	6.82	0.87	10.01	0.62
By listing year							
2006	68	22.04	0.92	18.56	1.70*	19.21	1.03
2007	91	14.92	1.34	15.27	1.14	12.45	0.35
2008	29	98.97	4.68***	98.21	4.39***	95.91	3.78***
2009	17	7.57	0.74	9.41	0.72	10.40	0.89
2010	41	11.25	1.39	12.20	1.01	11.61	0.82
2011	8	-7.48	-0.95	-5.68	-0.72	6.99	0.07
By Issue year							
2005	9	63.82	2.34**	58.68	4.78***	55.00	3.07***
2006	69	11.44	0.52	8.43	0.80	8.68	0.47
2007	96	42.96	2.84***	43.27	2.66***	41.00	1.15
2008	19	10.51	1.01	10.89	0.66	7.56	0.35
2009	16	11.85	1.27	13.06	1.00	12.53	1.26
2010	45	8.44	1.03	9.65	0.89	12.36	0.27

N= Sample size, CAR= Cumulative Average Abnormal Return
* statistically significant at 10% level, ** statistically significant at 5% level, *** statistically significant at 1% level

5.2. The estimated models for the short-run market performance

This section estimates binary and multiple regression statistical models with a view to identify the significant determinants of the short-run market performance. In section 5.1, the short-run IPO market performance is identified as the underpricing which measured using short-run abnormal returns. The estimated binary and multiple regression models for the primary, secondary, total and post-day listing market are presented in table 6 and 7 respectively. To eliminate multicollinearity issue, highly correlated variables are excluded from the estimated models. Only the statistically significant explanatory variables are reported in these estimated models which indicate only the issue and market characteristics as the short-run determinants. The firm characteristics are not statistically significant in these estimated models. Some of the industry represent dummies are also significant in the estimated regression models. LR and F statistics of the estimated models in table 6 and 7 are significant at 5% levels which indicate that models are valid. The calculated diagnostics test statistics such as Durbin-Watson (DW), Lagrange Multiplier (LM) and White Heteroscedasticity (WH) for the error terms in table 7 are statistically insignificant at 5% level which indicates the robustness of the multiple regression models. The significant determinants of the short-run underpricing in the estimated models are discussed under the issue and market characteristics as follows.

5.2.1. Issue characteristics

The statistically significant issue characteristics in the estimated binary and multiple regression models are listing delay (LISD), IPO period (IPOP), total period (TOTP), total net proceeds ratio (TNPR), issue price (PRICE) and attached share option availability (ATOA). In table 6, the LISD is a significant variable in the all binary estimated models except the secondary market model and also it is significant in the primary market multiple regression model. The TOTP is only significant in the estimated all total market models in table 6 and 7. The IPOP and TNPR are significant only in the all estimated binary market models except the total market. The PRICE and ATOA are only significant in the multiple regression secondary market and total market respectively. The relationship between the underpricing (short-run market performance) and these significant variables is examined using the estimated models below.

5.2.2. Underpricing (short-run market performance) and listing delay (LISD)

The estimated regression models in table 6 and 7 shows that LISD is negatively and significantly associated with the level of underpricing which is statistically significant at 1% level for the all estimated binary models except the secondary market model and 5% level for the primary multiple regression model. The result shows lower LISD IPOs are more underpriced compared to the higher LISD IPOs. It may suggest that increasing LISD will lead to decrease the demand of informed investors' because informed investors think this issue is not an attractive issue to invest and they withdrawing from the market. In other words, this may give an opportunity to uninformed investors to invest in this issue. This situation may lead to minimize the winner's curse problem and much underpricing is not necessary to attract uninformed investors. Therefore, According to the Rock's hypothesis, we cannot expect a higher level of underpricing with longer delay in listing. The finding is consistent with the Australian prior studies in IPO performance [How, (2000) and Lee et al. (1996)]. They found that listing delay is an important variable of the underpricing in Australian IPOs and can be used to test the Rock's hypothesis. According to the uncertainty hypothesis, however, Chowdhry and Sherman (1996) found that the longer time period of listing indicates more uncertainty about the offer. Mok & Hui (1998), Su & Fleischer (1999), Megginson &Tian (2006) and Zouari et al. (2011) also found a positive association between the level of underpricing and LISD.

5.2.3. Underpricing (short-run market performance) and IPO period (IPOP)

The primary market, total market and post-day market binary regression models in the table 6 show that the IPOP coefficient is negative and it is statistically significant at the level of 1% in the primary and total market and 5% in the post-day market. This shows that if the IPOP is increased it leads to decrease the level of underpricing. The finding argues that the level of underpricing can be reduced due to the uninformed investors (Rock, 1986). If the IPOP is increased it may gives chance to uninformed investors to invest in this offer. Therefore, the future demand may decline due to the less number of uninformed investors in the market and relative high level of underpricing cannot be used to attract or compensate uninformed investors who suffer from the winner's curse problem. Therefore, we can expect at a lower level of underpricing with longer IPO period according to the Rock's hypothesis.

5.2.4. Underpricing (short-run market performance) and total listing period (TOTP)

The estimated secondary market models in table 6 and 7 show that there is an inverse relationship between underpricing and TOTP. This implies that IPOs with higher TOTP tend to have lower level of underpricing. Rock (1986) found that underpricing can be used to attract uninformed investors who exist due to the winner's curse problem. This problem indicates that informed investors do not give a chance to uninformed investors to invest when the offer is attractive and they withdraw from the market when the offer is unattractive. Lee et al. (1996) also found that quickly sold issues (longer issues) are more underpriced (less underpriced) due to the higher (lower) level of informed demand. How (2000) found that there is a statistically significant negative relationship between underpricing and time to listing. The finding is statistically significant at 1% level and consistent with the Rock's hypothesis.

5.2.5. Underpricing (short-run market performance) and total net proceeds ratio (TNPR)

The table 6 shows that there is an inverse association between underpricing and TNPR of the issuing company. This finding implies that higher the TNPR of an IPO firm, lower the level of underpricing based on the estimated binary models except secondary market model is. It could be argued that there is a lower risk for the IPOs with greater TNPR, which results in lower underpricing. If TNPR increases, the future investors feel this offer as lower risk investment for them. They cannot earn higher return on this investment because this is considered as a low risk investment. Therefore, the lower prices can be expected due to the lower risk. As a result of the lower prices, the higher levels of underpricing can be seen in the short-run IPO market. Dimovski and Brooks (2004) have also reported a negative association between retained capital and the level of underpricing. The retained capital is a similar variable to the TNPR which shows what percentage of equity capital retained by an IPO company after paying issue cost. Therefore, our result is consistence with the uncertainty hypothesis ant it is statistically significant at 1% level for the estimated total and post-day market models and 5% level for the binary primary market.

5.2.6. Underpricing (short-run market performance) and issue price (PRICE)

In table 7, the multiple regression secondary market model shows that there is an inverse relation between the underpricing and the issue price (PRICE). The empirical evidence also shows an inverse relationship between the offer price and the level of underpricing. This relationship may exist due to higher uncertainty or higher demand for lower price of IPO's. Ibbotson, Sindelar & Ritter(1988) found that firms that offer with very low prices usually record a high level of underpricing. Fernando, Krishnamurthy & Spindt(1999) found a U-shaped association between these two variables and they pointed out that the offer price may also indicate the extant of underpricing but its level seems to have little economic significance. Certo *et al.*(2003) and Slama Zouari et al. (2011) suggest that higher offer prices indicate lower uncertainty regarding the future performance of the firm. Furthermore, Jain and Kini (1999) found that a low offer price is associated with lower short term performance. The past researchers argue that lower priced-offers are underpriced relative to the higher priced-offers due to the high risk and speculative trading. Therefore, the result is consistent with the uncertainty hypothesis and it is also statistically significant at 5% level.

5.2.7. Underpricing (short-run market performance) and attached share option availability (ATOA)

The multiple regression total market model in table 7 indicates that there is a negative relationship between underpricing and ATOA. The result indicates that the attached free share option for subscribers increase agency cost and hence reduces the level of underpricing. Grossman and Hart (1982) and Williams (1987) argue that high leverage reduces agency costs and increases firm value by encouraging managers to act more in the interests of equity holders. Once the attached free share option is exercised by the existing share holders, the leverage level goes down. Therefore, the agency cost goes up due to the low leverage. Finally, the firm value may decrease due to the low market price. If the market price goes down the level of underpricing also goes down. Therefore, the negative relationship can be seen between the level of underpricing and attached share option. This finding is supported by Dimovski and Brooks (2004) who found a negative relationship between underpricing and attached share option. How and Howe (2001) have investigated package initial public offerings (PIPOs)[22] in order to test the agency-cost hypothesis but their findings have not confirmed this hypothesis. However, our finding confirms the agency cost hypothesis and it is statistically significant at 5%.

5.2.8. Market characteristics

Only the market volatility (MV) and the market return (RETU) are statistically significant variables in the estimated binary and multiple regression models. The market volatility is a significant variable in the binary primary market in table 6 and the multiple regression total and post-day market models in table 7. The market return is only significant in the multiple regression models such as secondary, total and post-day markets. The relationship between the level of underpricing and each of these significant variables is explained as follows.

5.2.9. Underpricing (short-run market performance) and market volatility (MV)

According to the estimated binary primary market model in table 6, the market volatility (MV_{t-60}) appears to be positively related to underpricing, indicating that the IPO firms with higher market volatility tend to have higher degree of underpricing in the primary market. In other words, lesser the market volatility of the firm, low riskier the firm, the lower the level of underpricing will be. This relationship is also consistence with the uncertainty hypothesis, which in turn also supports the normal hypothesis of a risk-return relationship. This result is also statistically significant at 10% level. However, the unexpected sign has been found between underpricing and market volatility when models are estimated by the multiple regression. According to the estimated multiple regression models for total market and post-day market in table 7, the market volatility (MV_{t-10}) appears to be negatively related to underpricing, indicating that the IPO firms with lower market volatility tend to have higher underpricing in the total and post-day markets. In other words, lesser the market volatility of the firm the higher the level of underpricing will be. This result is statistically significant at 5% level. The past researchers [How, Izan and Monroe (1995) and Omran (2005)] have found a similar relationship between underpricing and market

[22] PIPOs are known as IPOs with common stock and warrants. In Australia, share warrants are called share options (how and Howe, 2001).

volatility under the multiple regression model. However, these researchers also mentioned the expected sign of this relationship as positive. We can argue that the positive sign of this relationship can be found when we analyse using the binary regression model because this type of model indicates the likelihood of occurrence. When we analyse using multiple regression model it may gives a negative relationship between these two variables because it indicates values of occurrence under real market behaviour. However, this result is not consistence with the uncertainty hypothesis.

5.2.10. Underpricing (short-run market performance) and market return (RETU)

In table 7, the estimated regression models for the total market and the post-day market indicate a positive relationship between underpricing and $RETU_{t-1}$. This shows that the higher (lower) $RETU_{t-1}$ tend to have the higher (lower) underpricing. The market return is a major component of a firm's return which can be used to estimate the reward for the market risk (risk premium). In other words, the first day total return of the firm varies according to the market return. This result is consistent with the uncertainty hypothesis. The positive relationship between these two variables in the total market is statistically significant at 5% level and the post-day market is at 10% level. In comparison with this finding, the estimated multiple regression secondary market model indicates a negative relationship between underpricing and $RETU_{t-3}$ and this relationship is statistically significant with 5% level. However, this finding does not confirm the uncertainty hypothesis.

5.2.11. The marginal probability analysis on the short-run market performance

This section analyses the marginal probability associated with the significant variables in the short-run IPO market in Australian based on the logistic estimated models in table 6. Marginal analysis is used to find out which is the most important explanatory variables that contribute to the change the short-run market performance. The calculated marginal probability associated with the variables in the short-run market (based on the first day returns) such as primary, secondary and total markets are presented in table 8 and the post-day market (based on the post listing returns) in table 9.

Table 8. The change in probability (Δp) due to a change in explanatory variables

Variables	**Primary market**	**Secondary market**	**Total market**
TOTP		$\Delta p=-0.041 \times 10^{-3}$	
IPOP	$\Delta p=-0.071 \times 10^{-3}$		$\Delta p=-0.076 \times 10^{-3}$
LISD	$\Delta p=-0.063 \times 10^{-3}$		$\Delta p=-0.080 \times 10^{-3}$
TNPR	$\Delta p=-0.169 \times 10^{-1}$		$\Delta p=-0.212 \times 10^{-1}$
MV_{t-60}	$\Delta p= 0.160 \times 10^{0}$		

Note: Negative sign indicates an inverse relationship between explanatory variables and underpricing whereas positive sign shows direct relationship between these. Where, Δp = marginal probability, TOTP = total listing period in days, IPOP = IPO period in days, LISD = listing delay in days, TNPR = total net proceeds ratio and MV_{t-60} = market volatility of 60 days period prior to closing date of the offer.

Table 8 shows the calculated marginal probabilities for the significant explanatory variables in the primary, secondary and total markets. Except MV_{t-60}, all other explanatory variables in these market models have a negative sign. The negative sign for IPOP shows that if IPOP is increased by one day then the probability of change to overprice or decrease in the level of underpricing is 0.071×10^{-3} for the primary market and -0.076×10^{-3} for the total market .The positive sign for MV_{t-60} in the primary market indicates that if the market volatility increases by one unit then the probability of change to underprice or decrease in the level of overpricing is 0.160×10^{0}. The negative sign for LISD indicates that if listing is delayed by one day then the probabilities of change to overprice or decrease in the level of underpricing are 0.063×10^{-3} and -0.080×10^{-3} for the primary market and the total market respectively. A one unit increase in TNPR will result in a decrease in the probability of occurrence of underpricing by -0.169×10^{-1} and -0.212×10^{-1} for the primary and total markets respectively. The market volatility (MV_{t-60}) and TNPR are the most important explanatory variables in the primary and total market models. Only one explanatory variable is significant under the secondary market model which is the total period (TOTP). The negative sign for TOTP indicates that a day increase in the total period will result in a decrease in the probability of the level of underpricing or an increase in the probability of overpricing by 0.041×10^{-3}.

Table 9. The change in probability (Δp) due to a change in explanatory variables

Industry dummy	**IPOP**	**LISD**	**TNPR**
D_1	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.241 \times 10^{-1}$
D_3	$\Delta p=-0.055 \times 10^{-3}$	$\Delta p=-0.055 \times 10^{-3}$	$\Delta p=-0.206 \times 10^{-1}$
D_4	$\Delta p=-0.069 \times 10^{-3}$	$\Delta p=-0.069 \times 10^{-3}$	$\Delta p=-0.259 \times 10^{-1}$
D_5	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.241 \times 10^{-1}$
D_7	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.065 \times 10^{-3}$	$\Delta p=-0.244 \times 10^{-1}$
Average Marginal Prob.	$\Delta p=-0.064 \times 10^{-3}$	$\Delta p=-0.064 \times 10^{-3}$	$\Delta p=-0.238 \times 10^{-1}$

Note: Negative sign indicates an inverse relationship between explanatory variables and underpricing whereas positive sign shows direct relationship between these. Where, Δp = marginal probability, IPOP = IPO period in days, LISD = listing delay in days, TNPR = total net proceeds ratio, D_1= dummy for resource industry, D_3= dummy for industrial sector, D_4= dummy for consumer discretionary/staples industry, D_5= dummy for information technology industry, and D_7= dummy for utilities industry.

Table 6. Estimated binary (logit and probit) regression models for the short-run market performance

Short-run Market Performance	**Estimated Logit Model from January 2006 to January 2011**	**N**	**LR statistics**	**Probability (LR stat.)**	R^2
Primary market	$ln\left[\frac{P_i}{1-P_i}\right]$= 8.591 - 0.034 **IPOP**– 0.030 **LISD** – 8.073 **TNPR** + 76.348 **MV**$_{t-60}$ (0.005)*** (0.001)*** (0.028)** (0.100)*	254	28.60551	0.000009	8.9%
Secondary market	$ln\left[\frac{P_i}{1-P_i}\right]$= 0.334 - 0.017 **TOTP** (0.016)**	254	6.925333	0.008498	2%
Total market	$ln\left[\frac{P_i}{1-P_i}\right]$= 10.090 - 0.033 **IPOP** - 0.038 **LISD** - 9.173 **TNPR** (0.006)*** (0.000)*** (0.012)***	254	35.42371	0.000000	10.5%
Post day market	$ln\left[\frac{P_i}{1-P_i}\right]$= 8.828 - 0.028 **IPOP** - 0.028 **LISD** - 10.481 **TNPR** + 2.216 **D**$_1$ + 2.650 **D**$_3$ + 1.858 **D**$_4$ + 2.223 **D**$_5$ + 2.173 **D**$_7$ (0.016)** (0.001)*** (0.005)*** (0.013)** (0.005)*** (0.052)* (0.028)** (0.081)*	254	35.00782	0.000027	10.28%
	Estimated Probit Model from January 2006 to January 2011				
Primary market	P_i= 5.020 - 0.021 **IPOP**– 0.018 **LISD** – 4.665 **TNPR** + 44.276 **MV**$_{t-60}$ (0.005)*** (0.000)*** (0.029)** (0.102)*	254	28.51855	0.000010	8.97%
Secondary market	P_i= 0.205 - 0.010 **TOTP** (0.013)***	254	7.034133	0.007997	2%
Total market	P_i= 5.874 - 0.019 **IPOP** - 0.022 **LISD** - 5.301 **TNPR** (0.006)*** (0.000)*** (0.013)***	254	35.05781	0.000000	10.41%
Post day market	P_i= 5.318 - 0.017 **IPOP** - 0.017 **LISD -** 6.324 **TNPR** + 1.359 **D**$_1$ + 1.619 **D**$_3$ + 1.133 **D**$_4$ + 1.341 **D**$_5$ + 1.319 **D**$_7$ (0.014)*** (0.001)*** (0.012)*** (0.009)*** (0.003)*** (0.043)** (0.024)** (0.077)*	254	35.15332	0.000025	10.32%

*Note: Figures in brackets indicate the significance levels. Negative sign indicates an inverse relationship between explanatory variables and dependent variable whereas positive sign shows direct relationship between these. Where, N = sample size, TOTP = total listing period in days, IPOP = IPO period in days, LISD = listing delay in days, TNPR = total net proceeds ratio, MV_{t-60} = market volatility of 60 days period prior to closing date of the offer, D_1= dummy for resource industry, D_3= dummy for industrial sector, D_4= dummy for consumer discretionary/staples industry, D_5= dummy for information technology industry, D_7= dummy for utilities industry. LR statistics test the joint hypothesis that all slope coefficients except the constant are zero. Probability is the p value of the LR test statistics. R^2 is the McFadden R-squared. * statistically significant at 10% level, ** statistically significant at 5% level, *** statistically significant at 1% level*

Table 7. Estimated multiple regression models for the short-run market performance

Short-run Market Performance	**Estimated Multiple Regression Model for the period from January 2006 to January 2011**
Primary market	$ln[AR]$= 0.109 - 0.002 [**LISD**] + 0.111[**D**$_3$] (0.053)* (0.076)* N =254 F=3.574 Prob.(F)= 0.029 AdjR^2 = 2% DW = 2.046 LM = 0.831 WH = 0.773
Secondary market	$ln[AR]$= 0.140 - 0.026 ln[**PRICE**] - 0.001 [**TOTP**] - 289.258 [**RETU**$_{t-3}$] - 0.032 [**D2**] + 0.021 [**D3**] + 0.013 [**D4**] -0.005 [**D5**] (0.028)** (0.000)*** (0.041)** (0.53) (0.332) (0.571) (0.868) - 0.059[**D**$_6$] - 0.049[**D**$_7$] (0.270) (0.258) N =254 F=4.294 Prob.(F)= 0.000 AdjR^2 =10% DW =2.113 LM = 0.539 WH = 0.127
Total market	$ln[AR]$= 0.189 - 0.185 [**ATOA**] - 15.062 [**MV**$_{t-10}$] + 330.027 [**RETU**$_{t-1}$] + 0.108 [**D3**] (0.059)* (0.015)** (0.0316)** (0.094)* N =254 F=3.319 Prob.(F)= 0.011 AdjR^2 = 4% DW =2.007 LM = 0.989 WH = 0.966
Post day market	$ln[CAR_{10}]$ = 0.206 - 16.62 [**MV**$_{t-10}$] + 282.196 [**RETU**$_{t-1}$] - 0.416[**D**$_2$] (0.017)** (0.10)* (0.064)* N =254 F= 3.176 Prob.(F)= 0.025 AdjR^2 = 3% DW =2.100 LM = 0.321 WH = 0.999

*Note: Figures in brackets indicate the significance levels. Negative sign indicates an inverse relationship between explanatory variables and dependent variable whereas positive sign shows direct relationship between these. Where, AR = abnormal (excess) return, CAR_{10} = cumulative abnormal return in post listing day 10, N= sample size, LISD = listing delay in days, PRICE= issue price, TOTP = total listing period in days, $RETU_{t-1}$= square value of average market return before one day of the closing date of the offer, $RETU_{t-3}$= square value of average market return before three days of the closing date of the offer, ATOA = attached share option availability and MV_{t-10} = market volatility of ten days period prior to closing date of the offer, D_1= dummy for resource industry, D_2= dummy for chemical/material industry, D_3= dummy for industrial sector, D_4= dummy for consumer discretionary/staples industry, D_5= dummy for information technology industry, D_6= dummy for telecommunication industry, D_7= dummy for utilities industry, Prob.(F)= significant level of the F-statistic , $AdjR^2$ is the adjusted R-squared, F= F-statistic, DW = Durbin-Watson statistic to test serial correlation, LM = Lagrange multiplier chi-square statistics to test serial correlation, WH = White heteroscedasticity test to test the constant error variance, * statistically significant at 10% level, ** statistically significant at 5% level, *** statistically significant at 1% level*

Table 9 shows the calculated marginal probabilities associated with the significant variables in the post-day market based on the industry dummies. Table 6 shows that some industry dummies were statistically significant on the return in the post-day listing market .The post day market model also show an inverse sign for the explanatory variables.

The resource industry and the information technology industry dummies show similar marginal probabilities for the significant explanatory variables whereas the other industry dummies indicate different marginal probabilities in relation to each significant variable. The highest marginal probability of the all explanatory variables shows in the consumer discretionary industry whereas the lowest probabilities in the industrial sector. However, a considerable difference cannot be seen among the probabilities of the explanatory variables in different industries. Therefore, the average marginal probability is also estimated for each of the explanatory variables. According to the average marginal probability, TNPR is the most important variable of the post-day market due to the highest marginal probability compared to others. The negative sign for TNPR indicates that If TNPR is increased by one unit then the probability of change to overpricing or decrease in the level of underpricing is 0.238 $x10^{-1}$.

6. CONCLUSIONS

This research paper has evaluated the short-run market performance of the Australian IPOs listed from 2006 to 2011 using the first listing day returns and the post-day listing returns. The first listing day returns are analysed by considering the first listing day opening price primary market, the closing price secondary market, and the total market using the average abnormal returns. The post listing returns are analysed using the average cumulative abnormal returns. This study identifies the issue, firm and market characteristics as determinants of short-run underpricing with the aid of binary and multiple regression models. A marginal probability analysis was carried out to measure the risk associated with the determinants of short-run underpricing.

The analysis based on the first listing day primary market returns, total market returns and the post-day listing returns shows that Australian IPOs are underpriced in the short-run. This finding is lined up with the underpricing phenomenon of IPOs, which is widely accepted as a universal phenomenon. Although the Australian IPOs are underpriced, the post-day listing return indicates that the level of underpricing is slowly decreasing after the listing particularly from 7th day to 10th day period. The decreasing trend of post listing returns is in line with the findings of Aktas, Karan and Aydogan(2003), Kenourgios, Papathanasious and Melas (2007) and Kazantzis and Thomas (1996). However, Sohail, Raheman and Durrani(2010) argue that this trend can be expected only up to the 10^{th} day under the normal economic condition. The decreasing trend of post-listing returns signal that investors' wealth can be diluted due to overpricing in the long-run.

Having identified that the IPOs are always underpriced based on the first listing day opening price primary market, the closing price secondary market return analysis indicates that the Australian IPOs are overpriced by 1.55% on abnormal returns. Study found that there is a substantial variation in the first listing day returns between the opening price primary and the closing price secondary markets. This may occur due to the speculative behaviour of investors in the market. In contrast with this finding, however, Chang et al.(2008) documented that the Chinese IPOs were underpriced by 1.55% in the first day closing price secondary market[23]. The closing price secondary market analysis may be useful to the investors because the first day primary market high returns are due to the lack of information and speculative behaviour of the investors.

The analysis of short-run IPO market performance by industries, listing years and issue years shows that there is a substantial variation in the level of short-run performance. When we examine the IPOs by the industries, IPOs issued by chemical and material industry are overpriced in the primary market, the secondary market and the total market. Industrial sector IPOs are underpriced on abnormal returns by 68.03% in the primary market and 65.31% in the total market which are the highest levels of underpricing relative to other sectors. The resource sector IPOs are underpriced in the primary and total markets, which is statistically significant at 1% level. In contrast to the resource sector, the telecommunication sector IPOs are also underpriced in both markets which is also statistically significant. The listing year analysis found that IPOs in the primary market and the total market are underpriced except in listing year 2011 and overpriced in the secondary market. In the primary and the total markets, the levels of underpricing in year 2006, 2007 and 2010 are statistically significant at 1% on abnormal returns. In 2011, the levels of overpricing in primary, secondary and total markets are not statistically significant. The level of overpricing in the secondary market is statistically significant in 2007 and 2010.The issue year analysis shows that IPOs are underpriced in the primary market and the total market and overpriced in the secondary market except 2008. Issued IPOs in all markets are underpriced in 2008 but it is not statistically significant. In the secondary market, statistically significant overpricing levels can be found only in 2007 and 2010. The statistically significant underpricing levels in the both markets primary and total can be seen in all issue years except 2008 and 2005.

The post day return analysis shows that the industrial sector IPOs are more attractive than all other sectors. The industrial sector IPOs are underpriced on CARs by 68.93%, 67.84% and 66.29% in the 3^{rd}, 6^{th} and 10^{th} days respectively. These underpricing levels are statistically significant at 1% level. However, IPOs in the chemical and material industry are not attractive to investors because it is overpriced based on the CAR measure for all days. The IPOs listed in 2008 are also underpriced by 98.97%, 98.21% and 95.91 in the 3^{rd}, 6^{th} and 10^{th} days and these underpricing levels are statistically significant at 1%. In listing year 2011, the negative

[23] We have not compared our findings directly with prior research findings of Australian IPOs because we are unaware of any study that has focused on the first day primary and the closing price secondary market in relation to the Australia.

average cumulative abnormal returns in day 3 and day 6 have been found which indicates that listed IPOs in this year are overpriced. The overpricing IPOs cannot be found in the issue year analysis because the negative returns have not been reported. The statistically significant underpricing levels can be seen in issue year 2005 and 2007. However, in overall, the post-day listing analysis shows that the wealth of the investors has been decreasing as the time goes on.

The determinants of underpricing in Australia IPOs are the IPO period (IPOP), time to listing (TOTP), listing delays (LISD), total net proceeds ratio (TNPR), the market volatility (MV), issue price (PRICE), time to listing (TOTP), attached share option availability (ATOA) and market return (RETU). These determinants confirm that the issue and market characteristics are more important than the firm characteristics when explaining the short-run underpricing in Australian IPOs. The IPO period, time to listing, listing delays support Rock's hypothesis while the total net proceeds ratio, market volatility, market return and issue price confirm the uncertainty hypothesis. The attached share option availability supports the agency cost hypothesis. The marginal probability found that increasing (decreasing) of market volatility (MV) and decreasing (increasing) of total net proceeds ratio (TNPR) lead to increase (decreasing) the level of uncertainty which causes to increase (decrease) the level of underpricing in short-run. Study concludes that short-run market performance is sensitive to the market, industry, listing & issues years and models.

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THE IMPACT OF SERVICE QUALITY ON THE VIABILITY OF START-UP BUSINESSES

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Abstract

A 3-year long survey was conducted in the Tshwane geographical region of Gauteng Province in South Africa in order to identify and quantify key predictors of adequate municipal services that are routinely provided to customers who operate newly established small businesses in the City of Tshwane, Pretoria, South Africa. Data was collected by using a structured, pre-tested and validated questionnaire of study from a stratified random sample of size 1, 058 small businesses. The key objective of study was to assess the relationship between viability in small businesses and the provision of quality municipal services by the City of Tshwane. The study was conducted against the background of a high failure rate among newly established small businesses in the City of Tshwane. The study was conducted over a 3-year period (2012 to 2014). Data was collected monthly during the three-year period of study on socioeconomic variables that are known to affect the perception of business operators on the quality of municipal services to business operators and the general public. Statistical procedures such as cross-tab analyses, panel data analysis, Markov Chain Monte Carlo (MCMC) algorithms and Bayesian methods were used for estimating parameters. The study showed that there was a significant association between positive perception of business operators on the quality of municipal services provided to them and viability of businesses. The results showed that 87% of viable businesses were satisfied with the quality of routine municipal services that were provided to them by the City of Tshwane. The corresponding figure for non-viable businesses was only 14%. The viability of businesses was significantly influenced by 3 predictor variables. These predictor variables were: lack of capacity for fulfilling the business and entrepreneurial needs of newly established businesses [Hazard Ratio = 3.58; P=0.000; 95% C. I. = (1.45, 5.46)], inappropriate policy [Hazard Ratio = 3.19; P=0.000; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programmes directed at newly established small businesses [Hazard Ratio = 2.89; P=0.000; 95% C. I. = (1.24, 4.77)], in a decreasing order of strength. Similar findings were obtained from the analyses of in-depth interviews.

Keywords: City of Tshwane, Small businesses, Municipal services, Perception, Hazard ratio

1. INTRODUCTION AND BACKGROUND TO STUDY

The primary study was conducted by Khale and Worku (2015) by following up 1, 058 start-up small, micro and medium-sized enterprises (SMMEs) in the Tshwane region of Gauteng Province in South Africa. The key objective of study was to assess the relationship between viability in small businesses and the provision of quality municipal services by the City of Tshwane. The study was conducted against the background of a high failure rate among newly established small businesses in the City of Tshwane. The study was conducted over a 3-year period (2012 to 2014). Data was collected monthly during the three-year period of study on socioeconomic variables that are known to affect the perception of business operators on the quality of municipal services to business operators and the general public.

According to Brownson (2014), Henrekson (2014), Marivate (2014), Khale (2015), Seeletse (2012) and Worku (2014), one key obstacle to sustained growth and viability in small businesses is failure to provide small businesses with high quality and efficient municipal services. The aim of the study was to assess the relationship between the provision of adequate municipal services and viability in newly established SMMEs conducting business in and around the City of Tshwane. Findings obtained from the study conducted by the South African Small Enterprise Development Agency (2013) have shown that 60% of all newly established small businesses in South Africa fail within their first year of operation. The study conducted by Marivate (2014) shows that the quality of routine municipal services that are provided to newly established SMMEs is grossly inadequate. The study by Khale (2015) has shown that lack of efficient municipal services is a key predictor of failure in newly established businesses in the City of Tshwane. A study conducted by the South African Department of Trade and Industry (2013) has pointed out that the degree of support provided to newly established SMMEs in all parts of South Africa is grossly inadequate. As a result of inadequate municipal services, newly established SMMEs are seen failing in a number of areas of specialization (Khale, 2015; Marivate, 2014; South African Chamber of Commerce and Industry, 2013;

South African National Department of Trade and Industry, 2013; South African Small Enterprise Development Agency, 2013; Ladzani & Netswera, 2009).

The aim of the study was to assess the impact of quality services on the viability of start-up SMMEs in the City of Tshwane. The study aimed to identify key causes of failure in newly established businesses in Tshwane. According to the South African Small Enterprise Development Agency (2013: 1-5), although the South African Government promotes the growth and development of small and medium-sized enterprises by massively investing in local institutions such as the South African Centre for Small Business Promotion (CSBP), Ntsika Enterprise Promotion Agency and Khula Enterprise Finance, the failure rate in newly established South African small and medium-sized enterprises is as high as 60%. The study conducted by Ladzani and Netswera (2009: 17-19) has found that small and medium-sized enterprises often fail due to lack of access to finance and lack of entrepreneurial skills.

2. OBJECTIVES OF STUDY

The overall objective of study was to assess the relationship between viability in small businesses and the provision of quality municipal services by the City of Tshwane. The study had the following specific objectives:

- To assess the relationship between viability in newly established SMMEs in the Tshwane region of Gauteng Province and the provision of quality municipal services to small businesses;
- To estimate the percentage of newly established SMMEs in the Tshwane region of Gauteng Province that fail in their first three years of establishment;
- To identify factors that adversely affect sustained growth and viability in small and medium-sized enterprises in the Tshwane region of Gauteng Province;
- To propose suitable and feasible remedial actions that could assist small and medium-sized enterprises in the Tshwane region of Gauteng Province;

3. LITERATURE REVIEW

Studies conducted by Ladzani and Netswera (2009), Seeletse (2012), Marivate (2014), Brownson (2014), Henrekson (2014), Shree and Urban (2012), Booysens (2011), Bezuidenhout and Nenungwi (2012), Asah, Fatoki and Rungani (2012), Edoho (2015) and Worku (2014) have shown that the key obstacles for sustained growth and development in newly established SMMEs in South Africa are lack of entrepreneurial skills, lack of access to finance, poor vocational skills, cumbersome bureaucratic problems and lack of adherence to the fundamental principles of good governance in the management and administration of newly established SMMEs. Khale (2015) has found that newly established SMMEs in Gauteng Province are adversely affected as a result of poor municipal services. The annual report issued by the South African Small Enterprises Development Agency (SEDA, 2014) has also pointed out that newly established SMMEs fail due to lack of adequate municipal services. According to SEDA (2014), small, micro and medium-sized enterprises (SMMEs) are defined as enterprises that employ less than or equal to 250 employees. SMMEs are also defined as an enterprise with a maximum asset base of about 10 million Rand excluding land and working capital in which between 10 and 300 employees work. Marivate (2014) defines an SMME as an enterprise that has an asset of between 2, 500 and 20 million Rand excluding the cost of land and working capital. There are various business structures that are suitable for small businesses.

Studies conducted in the City of Tshwane by Khale (2015) and Marivate (2014) have shown that the quality of municipal services that are being provided to start-up businesses operating in Tshwane are of poor quality, and that sustained viability in SMMEs was being undermined as a result of this. A similar finding has been reported by the South African Chamber of Commerce and Industry (2013), the South African National Department of Trade and Industry (2013), the South African Small Enterprise Development Agency (2013) and Ladzani and Netswera (2009). The study was prompted by the need to improve the plight of struggling start-up businesses in the various parts of Tshwane by improving the quality of municipal services that are needed routinely by SMMEs operating in the various geographical parts of Tshwane, South Africa.

According to a report issued by the South African Chamber of Commerce and Industry (2013:2-3), more than 30% of the total gross domestic product of South Africa is attributed to small and medium-sized enterprises. About 20% of all units exported by South Africa are produced by small and medium-sized enterprises.

4. METHODS AND MATERIALS OF STUDY

The design of study was longitudinal (2012 to 2014). Data was gathered (Khale, 2015) from a random sample of 1058 small, micro and medium-sized businesses conducting business in and around the City of Tshwane. Monthly data was gathered on a large number of socio-economic variables that affect the long-term survival of businesses. Data were gathered on the perception held by owners and operators of SMMEs on the quality of routine municipal services that are provided to SMMEs by municipal officials and employees. Additional data was collected from the businesses selected for the study on several socioeconomic variables that are known to affect viability in SMMEs. Examples of such variables are the duration of operation, amount of startup capital, level of education of business operators, level of skills of business operators, suitability of business premises, level of support provided by the South African Department of Trade and Industry to small businesses, source of finance, amount of loan borrowed by business operators, profit made, total revenue, operational cost, access to training opportunities on business operations, supervisory assistance, tax amount, method used for tax assessment, access to supplies needed by businesses, demand for goods and services in the local market, perception on level of assistance provided by the government, etc. Data collection was made by the City of Tshwane Metropolitan Municipality (Khale, 2015).

Statistical data analyses were performed by using Pearson's chi-square tests of association (Hair, Black, Rabin and Anderson, 2010), panel data analysis (Cleves, Gould & Gutierrez, 2004) and Marcov Chain Monte Carlo (MCMC) algorithms (Browne & Goldstein, 2010: 453-473). Makov Chain Monte Carlo (MCMC) algorithms (Browne and Goldstein, 2010: 453-473) were used for performing bootstrapping simulations. MCMC algorithms are used for solving multilevel problems that involve the construction of constrained variance matrices in cases where linear estimation techniques fail to produce theoretically reliable estimates of parameters. The statistical package STATA version 13 (STATA Corporation, 2013) was used for data entry and analyses.

5. RESULTS OF STUDY

The results showed that there was a statistically significant association between sustained viability in small businesses and positive perception on the quality of routine municipal services delivered to small businesses. The results showed that 87% of viable businesses were satisfied with the quality of routine municipal services that were provided to them by the City of Tshwane. The corresponding figure for non-viable businesses was only 14%. Table 1 shows the general characteristics of two groups of businesses (viable and non-viable businesses). The table provides frequency proportions for 6 key predictors of viability in small businesses. It can be seen from Table 1 that 631 of the 1058 businesses that took part in the study (59.64%) were viable whereas 427 of them (40.36%) were not viable. The table shows that the perception held by owners and operators of viable businesses were relatively more positive in comparison with the perceptions held by the owners and operators of non-viable businesses with regards to capacity, policy, the suitability of training programmes provided to newly established businesses, the ease of securing loans, entrepreneurial skills and past history of bankruptcy. Viable businesses were operated by owners and managers with relatively higher levels of entrepreneurial skills. Non-viable businesses were characterized by inability to secure loan needed for business operation (65%) and past history of bankruptcy (54%). The corresponding figures for viable businesses were only 27% and 13% respectively.

Table 1. Group proportions with regards to the financial viability of small businesses

Predictor variable	Viable (n=631)	Not viable (n=427)
Perception on the quality of municipal services provided to newly established SMMEs	Positive: 87% Negative: 13%	Positive: 14% Negative: 86%
Capacity for fulfilling the business and entrepreneurial needs of newly established SMMEs	Adequate: 71% Inadequate: 29%	Adequate: 28% Inadequate: 72%
Policy used for supporting newly established small businesses	Adequate: 56% Inadequate: 44%	Adequate: 31% Inadequate: 69%
Presence of tailor-made training programmes for owners and operators of SMMEs	Adequate: 69% Inadequate: 31%	Adequate: 34% Inadequate: 66%
Ability to secure loan needed for business operation	Easy: 73% Difficult: 27%	Easy: 35% Difficult: 65%
Level of entrepreneurial skills of business owners and operators	Adequate: 74% Inadequate: 36%	Adequate: 33% Inadequate: 65%
Past history of bankruptcy	Yes: 13% No: 87%	Yes: 54% No: 46%

Table 2, below, shows adjusted hazard ratios estimated from panel data analysis in which the Cox Proportional Hazards Model was used. It can be seen from the table that failure in small businesses was significantly influenced by 3 predictor variables. These 3 influential predictor variables were: negative perception on the quality of municipal services provided to newly established businesses [Hazard Ratio = 3.58; P=0.000; 95% C. I. = (1.45, 5.46)], inappropriate policy [Hazard Ratio = 3.19; P=0.000; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programmes directed at newly established small businesses [Hazard Ratio = 2.89; P=0.000; 95% C. I. = (1.24, 4.77)], in a decreasing order of strength.

Table 2. Adjusted hazard ratios estimated from panel data analysis

Variable	*Adjusted Hazard Ratio	P-value	95% C.I.
Negative perception on the quality of municipal services	3.58	0.000	(1.45, 5.46)
Inappropriate policy	3.19	0.000	(1.39, 5.28)
Lack of tailor made training programmes	2.89	0.000	(1.24, 4.77)

** Adjustment was done for geographical location, age of owner and gender*

The percentage of overall correct classification for the fitted logistic regression model was equal to 88.53%. The P-value for the Hosmer-Lemeshow goodness-of-fit test was equal to 0.1109 > 0.05, thereby indicating that the fitted logistic regression model was theoretically reliable.

The adjusted hazard ratio of the variable "Negative perception on the quality of municipal services" is 3.58. This shows that businesses that were owned or operated by people with a negative perception on the quality of municipal services provided to newly established businesses were 3.58 times as likely to fail in comparison with businesses that were owned or operated by people with a positive perception on the quality of municipal services provided to newly established businesses. The adjusted hazard ratio of the variable "inappropriate policy" is 3.19. This shows that businesses that were owned or operated by people with the perception that the City of Tshwane was implementing inappropriate policy on the growth and development of newly established SMMEs were 3.19 times as likely to fail in comparison with businesses that were owned or operated by people with the perception that the City of Tshwane was implementing an appropriate policy on the growth and development of newly established SMMEs. The adjusted hazard ratio of the variable "lack of tailor made training programmes" is 2.89. This shows that businesses that were owned or operated by people with the perception that the City of Tshwane did not have a tailor made training programme for newly established SMMEs were 2.89 times as likely to fail in comparison with businesses that were owned or operated by people with the perception that the City of Tshwane has a tailor made training programme for newly established SMMEs".

5.1. Results obtained from Makov Chain Monte Carlo (MCMC) algorithms

Makov Chain Monte Carlo (MCMC) algorithms (Browne and Goldstein, 2010: 453-473) were used for performing bootstrapping simulations. MCMC algorithms are used for solving multilevel problems that involve the construction of constrained variance matrices in cases where linear estimation techniques fail to produce theoretically reliable estimates of parameters. MCMC algorithms are used extensively as part of Bayesian analysis. Table 3 shows adjusted regression coefficients estimated from MCMC algorithms.

At the 5% level of significance, influential predictor variables of satisfactory performance are characterized by estimated regression coefficients that differ from 0 significantly, P-values that are smaller than 0.05, and 95% confidence intervals that do not contain the number 0.

Table 3. Adjusted linear regression coefficients estimated from MCMC algorithm

Predictor variable	**Adjusted linear regression coefficient*	*95% Confidence Interval*	*P-value*
Negative perception on the quality of municipal services	1.29	(0.79, 3.41)	0.000
Inappropriate policy	1.18	(0.76, 3.39)	0.000
Lack of access to tailor made training programmes	1.08	(0.64, 3.27)	0.000

** Adjustment was done for geographical location, age of owner and gender*

The estimates obtained by using MCMC algorithms and Bayesian analysis were fairly similar to estimates obtained from panel data analysis.

6. DISCUSSION OF RESULTS

The results showed that 87% of viable businesses were satisfied with the quality of routine municipal services that were provided to them by the City of Tshwane. The corresponding figure for non-viable businesses was only 14%. The study found that nearly 60% of the 1058 business owners and operators that were selected for the study were viable whereas the remaining 40% of businesses were not viable. Viable businesses were run by owners and operators who felt that the quality of municipal services provided to newly established SMMEs was generally satisfactory, whereas non-viable SMMEs were run by owners and operators who felt that the quality of municipal services provided to newly established SMMEs was not satisfactory. In general, the perception held by owners and operators of viable businesses were relatively more positive in comparison with the perceptions held by the owners and operators of non-viable businesses with regards to the quality of municipal service delivery, capacity, policy, the suitability of training programmes provided to newly established businesses, the ease of securing loans, entrepreneurial skills and past history of bankruptcy. Viable businesses were operated by owners and managers with relatively higher levels of entrepreneurial skills. Non-viable businesses were characterized by inability to secure loan needed for business operation (65%) and past history of bankruptcy (54%). The corresponding figures for viable businesses were only 27% and 13% respectively.

Results obtained from Pearson's chi-square tests of associations ($P < 0.05$) showed that businesses fail due to lack of initial capital, failure to utilize finance in accordance with business plan, high labour cost, shortage of entrepreneurial skills that are needed for operating business, adverse market conditions, difficulty in securing loans needed for business, inability to pay fees that are required for renting business premises, inability to draw up business plans, inability to do bookkeeping, the practice of selling on credit, the status of business being operated, and lack of training opportunities that are relevant to the business being operated. Businesses that failed were characterized by loss of money, inability to draw up business plans, inability to do book-keeping, inability to acquire technical and vocational skills due to shortage of finance.

Results obtained from panel data analysis and Bayesian analyses showed that failure in newly established small businesses was significantly influenced by 3 predictor variables. These 3 influential predictor variables were: negative perception on the quality of municipal services provided to newly established businesses [Hazard Ratio = 3.58; P=0.000; 95% C. I. = (1.45, 5.46)], inappropriate policy [Hazard Ratio = 3.19; P=0.000; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programmes directed at newly established small businesses [Hazard Ratio = 2.89; P=0.000; 95% C. I. = (1.24, 4.77)], in a decreasing order of strength.

The key findings of this study are in agreement with results reported by Ladzani and Netswera (2009), Seeletse (2012), Marivate (2014), Brownson (2014), Henrekson (2014), Shree and Urban (2012), Booysens (2011), Bezuidenhout and Nenungwi (2012), Asah, Fatoki and Rungani (2012), Worku (2014) and Edoho (2015). The study conducted by Marivate (2014) shows that the South African educational curriculum does not prepare potential entrepreneurs adequately for the task of operating newly established businesses. The content of the curriculum for vocational training at the high school and undergraduate level is vastly inadequate and irrelevant to the specific needs of young graduates who aspire to thrive in business. This failure constitutes a major obstacle to the growth and development in small and medium-sized businesses and enterprises in South Africa.

7. RECOMMENDATIONS

The findings obtained from the study call for intervention from the relevant stakeholders. Based on findings obtained from the study, the following recommendations are made to the City of Tshwane, the South African National Department of Trade and Industry, the South African National Department of Higher Education and Training, and the South African Chamber of Commerce and Industry with a view to improve viability in small and medium-sized enterprises operating in the Pretoria region of Gauteng Province. The recommendations have the potential for improving the plight of struggling SMMEs in the City of Tshwane.

- The City of Tshwane must develop tailor made customer service programmes that are aimed at providing efficient municipal services to newly established SMMEs that operate in the various parts of the City of Tshwane;
- The South African National Department of Trade and Industry must develop and implement tailor-made skills based training programmes on vocational and entrepreneurial activities for owners and operators of newly established SMMEs;
- It is necessary to provide mentorship and supervisory assistance to newly established SMMEs for a period of at least three years or more;
- It is vital to encourage academic and research institutions to create academic programmes in which trainees can acquire experiential training by working for businesses and industries as part of their academic training in South African institutions of higher learning. Such programmes should be jointly coordinated and funded by the South African Department of Higher Education and Training, the South African Department of Trade and Industry, and the South African Chamber of Commerce. Doing so has the potential for producing graduates who possess skills that are relevant to the actual needs of business, industry and government;
- It is necessary to monitor and evaluate the viability of newly established small businesses on a monthly basis. This task falls under the ambit of the South African Department of Trade and Industry. Such an intervention has the potential for minimizing the rate at which newly established small businesses fail in and around the City of Tshwane.

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EXTERNAL CORPORATE GOVERNANCE, TAX PLANNING, AND FIRM PERFORMANCE

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Abstract

We have attempted to theorize and empirically demonstrate the moderating effects of three external monitors (institutional investors, securities analysts, and external auditors) on the relationship between tax planning and firm performance. We propose that these monitors can affect either the form or the strength of that relationship. Data cover 73 companies listed in the Euronext 100 index for the period from 2008 to 2012. Empirical analyses are conducted using various statistical tools to identify the presence of moderator variables. Most importantly, results showed that institutional investors, securities analysts and external auditors moderate the form of the tax planning-performance relationship; it appears they involve themselves directly in the firms' tax decisions. Interestingly, we find evidence that these external monitors moderate the strength of the tax planning-performance relationship; that is, they may indirectly influence the effectiveness of firm tax strategic. Our results are insensitive to alternative measures of firm performance, to additional control variables and to alternative specifications. Our paper offers two contributions to corporate governance research. First, against a backdrop of increased attention on firms' tax planning, it provides empirical evidences concerning the nature and significance of the potential moderating effects of select external monitors on the relationship between tax planning and firm performance. Second, there is little attention about external monitors in research studies. In fact, this issue is not addressed in the literature within a European context using recent data.

Keywords: External Monitors, Tax Planning, Firm Performance, Moderating Variables

1. INTRODUCTION

There is a large body of empirical research that documents, firstly, the effect of corporate governance on firm performance (Belkhir, 2009; Boubaker and Nguyen, 2012; Pathan and Faff, 2013). Secondly, other studies have examined only the effect of corporate governance on the tax planning (Desai and Dharmapala 2006; Hanlon and Slemrod 2009). Recently, research works have turned their attention to provide evidence concerning the potential moderating effects of corporate governance mechanisms on the relationship between an independent variable such as tax planning and a dependent variable such as firm performance (Zemzem and Ftouhi, 2013a). The underlying premise is that managers and shareholders have divergent goals and risk preferences; thus managers tend to make strategic corporate decisions such as tax planning to maximize their utility rather than shareholders' wealth (Lanis and Richardson, 2012; Lanis et al., 2013).

In fact, previous literature shows how taxes influence firm financial decision making, as provided by Graham (2003), has considered the effect of taxes on financing choices, organizational form and restructuring decisions, payout policy, compensation policy, and risk management decisions. In this literature, taxes are viewed as one of many factors that shape these decisions. Only, taxes represent a significant cost for companies. In order to minimize the cost of taxation, tax planning becomes imperative. Indeed, corporations engage in various forms of tax planning activities to reduce tax payment. Thus, the movement of the tax function from a cost-center to a profit-center has led to more international tax planning.

To the best of our knowledge, the more recent studies were mainly based on internal governance mechanisms (e.g., board incentives), in part because of data unavailability and the complicated analysis involved. However, external governance mechanisms are more important in curbing managerial opportunism because they do not involve firm insiders and thus are less influenced by managers (Le et al., 2006). In this paper, we take a first step to assess the effectiveness of select external monitors (i.e., institutional investors, securities analysts and external auditors) on moderating the tax planning-performance relationship. Methodologically, we have attempted to distinguish between different potential types of moderating effects of external monitors.

Our paper makes several important contributions. Firstly, against a backdrop of increased attention on firms' tax planning, it provides empirical evidences concerning the nature and significance of the potential moderating effects of these external monitors on the relationship between tax planning and firm performance. Secondly, there is little attention about external monitors in research studies. In fact, this issue is not addressed in the literature within a European context using recent data.

Following this introduction, section 2 is devoted to present previous literature and develop testable hypotheses. From that, section 3 presents the research design which details data collection, variables measurement, and models specification. Finally, findings will be discussed and summarized in section 4. In section 5, we report the robustness checks and provide concluding remarks in section 6.

2. RELATED LITERATURE AND HYPOTHESES

Previous corporate governance studies (e.g., Le et al., 2006; Abdul Wahab and Holland, 2012) have used two basic methods to identify the presence of moderator variables: Moderated Regression Analysis (MRA) and subgroup analysis. MRA can help to identify moderator variables through examination of an interaction term in a regression model. If a significant interaction is found, the conclusion has been that the hypothesized moderator variable has a moderating effect of the form, namely a quasi or pure moderator. This analytical procedure cannot help to detect the strength of moderator variables even when the interactive term is not significant. Rather, we must use the subgroup analysis to separate the moderating effects of the form and of the strength.

As Le et al. (2006), we posit that the moderating effect of the form and the moderating effect of the strength are analogous to the direct and indirect effects of external monitors, respectively. External monitors can have direct effects when they participate actively in tax strategic plan. They may have an indirect effect when they, for example, develop internal control and compensation systems to reduce managerial opportunism. The moderating effects of select external monitors, such as institutional investors, securities analysts, and external auditors, are discussed in depth in the following section.

2.1. Institutional investors

Institutional investors such as pension funds are often major shareholders with the oversight skills of professional investors, so they have the incentive and ability to monitor executives (Le et al., 2006). Prior literature has investigated several issues associated with the presence of institutional investors as a source of external monitoring (Cornett et al., 2007; Brav et al., 2008; Elyasiani and Jia, 2010; Chung and Zhang, 2011). While monitoring by outside shareholders such as institutional investors can be beneficial (Huddart, 1993), it is also costly. Such monitoring requires independent sources of information concerning managerial actions; there are also potential liquidity costs (Noe, 2002), and free-rider problems with other shareholders (Grossman and Hart, 1980).

Institutional investors may affect tax planning performance either directly or indirectly. In recent years, extensive evidence has accrued regarding the increasing importance of institutional investors in corporate decisions (Ferreira et al., 2010; Aggarwal et al., 2011; Helwege et al., 2012). In the same time, Khurana and Moser (2012) note that the firms with higher levels of institutional ownership are less tax aggressive because the institutional owners are concerned with long-term consequences of aggressive tax strategies.

The effects of monitoring on the part of institutional investors extend to financial reporting. Moore (2012) investigates whether institutional ownership levels are associated with levels of and time-series variability in book-tax differences. He suggests that institutional ownership is negatively associated with total, permanent, and temporary book-tax differences. This finding is consistent with higher levels of institutional ownership equating to more effective monitoring of management, resulting in lower book-tax differences. Therefore, we contend that institutional investors may directly affect corporate tax planning.

Alternatively, institutional investors owners have strong capacity to actively supervise executives activities and thus provide more effective monitoring of corporate governance overall (Gillan and Starks, 2003). Some empirical evidence reveals that institutions have greater influence on executive compensation contracts (Hartzell and Starks, 2003) and to limit agency problems. By reason of their large shareholdings and voting power, Chung et al. (2002) stipulate that institutional investors play an important role in monitoring and influencing managers. It can force managers to focus on economic performance and avoid opportunities for self-serving behavior. Thus, reduces opportunistic earnings management.

Many studies demonstrate that institutional investors have been shown to positively affect the quality of a firm’s corporate governance and managerial performance (Parrino et al., 2003; Ferreira and Matos, 2008). Linking institutional ownership directly with firm value, Clay (2002) finds a positive association between level of investment by institutional shareholders and Tobin's Q. In the same line, other studies find results consistent with institutional investors monitoring in the financial reporting arena. They discover a negative association between institutional ownership level and earnings management (Chung et al., 2002).

Institutional investors could also influence firms indirectly through their preferences and trading with other dominant shareholders. In this context, Gomes and Novaes (2006) develop theoretical models which predict that large investors have an incentive to limit the self-serving agendas of controlling shareholders. Other research has shown that large non-controlling shareholders can enhance firm value via their monitoring activities of the largest shareholder (Laeven and Levine, 2008; Attig et al., 2009). Based on prior studies’ findings, we hypothesize that institutional investors may also have indirect effects on their firms’ tax performance.

Thus, we suggest the following hypotheses for testing for moderating effects institutional investors may have on the association of tax planning and firm performance.

Hypothesis 1.1 Institutional investors such as pension funds may moderate the form of the relationship between tax planning and firm performance.

Hypothesis 1.2 Institutional investors such as pension funds may moderate the strength of the relationship between tax planning and firm performance.

2.2. Securities analysts

According to Le et al. (2006), securities analysts are industry experts who specialize in collecting, analyzing, and disseminating firm-specific information to interested parties. They are recognized as external monitors in that they can overcome information asymmetry between corporate insiders and outsiders because executives can maneuver to make self-serving decisions while shareholders do not have adequate information to make judgments regarding those decisions (Comment and Jarrell, 1991; Ferris and Sarin, 2000; Boubaker and Labégorre, 2008).

In this context, Knyazeva (2007) and Yu (2008) examine the role of information intermediaries in corporate governance within the context of the effect of analyst coverage on earnings management. They found that a higher level of analyst coverage is related to less earnings management and that change of analyst coverage is negatively related to change of earnings management. In addition, the effect of analyst coverage is stronger for analysts who make better forecasts, including those from top brokerage houses and those with more experience. More generally, they suggest that the role of information intermediaries in corporate governance is potentially significant.

Added, shareholders may react to executive decisions-making and strategic vision by buying, selling, or exercising their control rights based on the information from analysts. Firm performance is affected by those reactions, particularly when performance is measured using market-based measures (Le et al., 2006). Brennan et al. (1993) find that the returns on the portfolios of firms that are followed by many analysts tend to lead those of firms that are followed by a few analysts, even when the firms are of approximately the same size. Piotroski and Roulstone (2004) examine the extent to which the financial analysts affect stock return synchronicity. They found that stock return synchronicity is positively associated with analyst forecasting activities; consistent with analysts increasing the amount of industry-level information in prices through intra-industry information transfers. In another way, the positive association is posited to be a consequence of improved intra-industry information and expertise allows them to better interpret and disseminate common information across all firms in the industry.

Additional tests show that analyst activity accelerates the incorporation of both firm specific and industry-level earnings news into prices. They found also that the analyst appears to increase stock return co-movement in one hand, on the other hand suggest that analysts facilitate the transfer of price-relevant information across peer firms. Finally, they suggest that analysts and their forecasting activities serve two roles in the price formation process: firstly, gathering and disseminate information unique to the firm. Secondly, identify and extract common information from firm, industry, and/or macro-level signals and to disseminate the value-relevant portion of such information across all firms in the industry.

In sum, securities analysts indirectly influence corporate tax planning by creating a better information environment for firms and leading to less information asymmetry. In other words, securities analysts moderate the strength of the relationship between tax planning and firm performance. Hence, we state our hypothesis in the alternative form as follows:

Hypothesis 2 Securities analysts may moderate the strength of the relationship between tax planning and firm performance.

2.3. External auditors

External auditors inspect firms' accounting reports and express an opinion as to whether financial statements are presented fairly in accordance with the applicable accounting standards. They must assert whether financial statements are free of material misstatement, whether due to error or fraud. Although empirical studies (e.g., Frankel et al., 2002; Sikka and Hampton, 2005; Freise et al., 2008; Asthana et al., 2009; Elder et al., 2013) have reported mixed finding regarding the monitoring effectiveness of external auditors, we contend that the quality of external auditors (type and industry specialization) play an important role in monitoring a firm's strategic activities such as tax planning.

Because external auditors are more concerned with opportunistic application of accounting principles that yield incoming increasing accruals, they can directly contribute to well-identified tax evasion in which financial incentives are shaped by audit, penalty, and tax rates (James, 2013). Some empirical studies stipulate that aggressive tax reporting could be constrained by external advisors, such as external auditors (Schön, 2008). Alexander et al. (2008) contend that the opportunity to engage in tax aggressiveness increases as audit independence diminishes.

Armstrong et al. (2012) show that firms may choose to use external providers for tax planning, which might weaken the link between tax director incentive compensation and measures of tax planning. Thus, external auditors may have an impact without being directly involved in the tax planning process. They may indirectly influence executives' tax decisions trough other governance activities such as designing effective internal governance mechanisms and reward systems.

Bushman and Smith (2001) contend that financial accounting is a key element to determine managers' compensation. Consequently, accurate performance measures can increase firms' profitability through incentive mechanisms. In the same line, Ting et al. (2008) consider that external auditor can be a signal for investors and they might influence disclosure. Gao and Kling (2012) measured the impact of external auditors on compliance to mandatory disclosure requirements to assess the effect of these regulatory changes. They found that auditor opinions increase the compliance to mandatory disclosure requirements. The external governance environment had a positive effect on firms' compliance to disclosure requirements. In line with this, we posit that external auditors may have either direct or indirect effects on the association between tax planning and firm performance.

Hypothesis 3.1 External auditors may moderate the form of the relationship between tax planning and firm performance.

Hypothesis 3.2 External auditors may moderate the strength of the relationship between tax planning and firm performance.

3. RESEARCH DESIGN

3.1. Sample Selection and Data Sources

The paper employs a panel dataset of firms listed on the Euronext 100 Index, which includes the 100 largest and most liquid stocks traded on Euronext during the five year period 2008-2012. A total of 37 two-digit Standard Industrial Classification (SIC) codes were represented in the sample, ranging from 10 to 95. As the nature of tax planning activities may depend on firm's expectations, regulated utilities (SIC codes 4900-4999) were excluded because they operate in an environment with specific legal and regulatory requirements. Also, in the vein of Abdul Wahab and Holland (2012), the sample is limited to non-financial firms because of the limitation of using accounting based valuation models on financial firms (SIC codes 6000-6999). Further filters were used to exclude firms with negative pretax income, extreme value of tax rates and unbalanced data. Table I presents the sample selection process which resulted in 73 firms making 365 year-end observations over the five year period with complete data for analysis.

Table I. Sample selection process

Details	*Number of companies*	*Number of observations*
Listed companies throughout the period	100	
Regulated utilities	(5)	
Finance companies	(10)	
	85	425
Negative profit before tax		(29)
Extreme value of tax rates (>1)		(9)
Unbalance data		(22)
Initial sample	73	365

We use the *Orbis* database to gather data on auditor type and percentage of stock held by institutional investors. We also obtained complementary information on tax data and financial control variables. Data regarding the number of securities analysts are collected from the *Thomson* database.

3.1. Variables Measurement

The empirical analysis in this paper is based on models that explain firm performance as a function of tax planning, external monitors and a series of control variables. Firm performance, the dependent variable that we are examining, is measured by the Return on Assets ratio (ROA). It is calculated as the net income divided by the book value of total assets. This ratio is the most used ratio to integrate accounting based performance as proxies for firm performance (Lam and Lee 2008).

The independent variable of main interest is the tax planning, which was measured using the Effective Tax Rates (ETR). It is defined as the percentage of total tax expense to pretax income. We draw on ETR in this study for two important reasons. Firstly, recent empirical tax research has found that ETR encapsulate tax planning (Armstrong et al., 2012). Secondly, ETR also denote the proxy measure of tax planning most frequently used by many academic researchers (Dyreng et al., 2008; Robinson et al., 2010; Zemzem and Ftouhi, 2013b). We next take a look at external monitors. The three mechanisms considered represent institutional ownership, securities analysts, and external auditors. Institutional ownership (IOWN) figures were identified from all shareholder owners of each sample firm, which were listed in the *Orbis* database as more than 3% owners in at least one period. The number of analysts (NA) following a firm was reported as the number of analysts' earnings estimates reported in the *Thomson* database. For a host of reasons, external audit quality is likely to be positively associated with Big 4 auditors for industrial firms. Firstly, several studies show that earnings management will be lower when the auditor is big 4 auditor (Kanagaretnam et al., 2010). Secondly, Autore et al. (2009) find higher importance for audit type where information uncertainty is higher relative to industrial firms. Finally, Healy and Palepu (2001) observe that information disclosure quality may be higher when the auditor is a brand-name auditor. However, given that our sample firms are all certified by at least one big 4 auditor, we argue that the measure of audit specialization would be more appropriate. According to the Big 4 report (2013), PWC and E&Y are the top two auditors in the tax service line. In 2012, these two firms accounted for \$7.944 billion and \$6.370 billion of tax services revenues, respectively. Therefore, we use PWC and E&Y as a proxy for auditor specialists by constructing a dummy variable PWCEY, which is coded 1 if the auditor is PWC, or E&Y, and 0 otherwise.

In our regressions, we control for various firm characteristics. The choice of control variables is based on Le et al. (2006) and Abdul Wahab and Holland (2012), and partly dictated by data availability. The first variable is the operating efficiency (OE), and it is computed by total wages and salaries to operating profit. More operational efficient firms are expected to be more profitable. It requires optimality in utilization of salaries and expenses. In addition, many researchers consider operational efficiency as a specific factor affecting profitability (e.g., Athanasoglou et al., 2008). Additionally, we control for firm leverage (LEV) defined as the total debt divided by the book value of equity. According to Le et al. (2006), firms with greater financial leverage may outperform less leveraged firms in good times and under perform in bad times. The third variable is firm size (SIZE), measured as the natural log of number of employees. Anderson and Fraser (2000) show that larger firms are more capable of diversifying risk, both geographically and by industry, than small firms. Moreover, larger firms have greater access to capital markets and thus more ability to adjust to unexpected liquidity and capital shortfalls. Finally, it has been argued that firm performance is typically associated with the industry type. Hence, we code a series of dummy variables (INDDUM) to control for industry effect (results for these variables, not reported to save space, were generally significant). Industries are identified using SIC division structure.

3.2. Models specification

The initial regression incorporating the predictor variable (ETR) and related control variables is set out below with variables as defined above:

$$ROA_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 OE_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \sum_{n=5}^{13} \beta_n INDDUM_{it} + \varepsilon_{it} \qquad \text{(model I)}$$

To assess the potentially impact of external monitors on the tax planning performance the above regression is extended by including the select variables IOWN, NA, and PWCEY to give model II as follows:

$$ROA_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 IOWN_{it} + \beta_3 NA_{it} + \beta_4 PWCEY_{it} + \beta_5 OE_{it} + \beta_6 LEV_{it} + \beta_7 SIZE_{it} + \sum_{n=8}^{16} \beta_n INDDUM_{it} + \varepsilon_{it} \qquad \text{(model II)}$$

A third regression tests whether the relationship between tax planning and firm performance is moderated by the three sources of external monitoring. In view of that, moderating variables ETR*IOWN, ETR*NA, and ETR*PWCEY are constructed by multiplying tax planning measure by IOWN, NA, and PWCEY variables, respectively.

$$ROA_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 IOWN_{it} + \beta_3 NA_{it} + \beta_4 PWCEY_{it} + \beta_5 ETR_{it} * IOWN_{it} + \beta_6 ETR_{it} * NA_{it} + \beta_7 ETR_{it} * PWCEY_{it} + \beta_8 OE_{it} + \beta_9 LEV_{it} + \beta_{10} SIZE_{it} + \sum_{n=11}^{19} \beta_n INDDUM_{it} + \varepsilon_{it} \qquad \text{(model III)}$$

To perform the study, we followed the method for identification of moderators proposed by Sharma et al. (1981). Specifically, we used a MRA to examine whether these external monitors can affects the form of the relationship, and we used Subgroup Analysis to examine whether they influenced the strength of the relationship. The proposed framework consists of four steps discussed below:

Step 1: Determine whether the hypothesized moderator variable interacts with the predictor using the MRA procedure (see model III). If there is a significant interaction, then proceed to step 2. Otherwise, go to step 3.

Step 2: Determine whether the moderator variable is a quasi or pure moderator by testing whether it is significantly correlated with the criterion variable (ROA). If it is, then it is a quasi moderator variable. If not, it is a pure moderator variable. Both quasi and pure moderators influence the form of the predictor-criterion relationship.

Step 3: Determine if the hypothesized moderator is related to the criterion or predictor variable. If it is, it is not a moderator. If it is not related to either the predictor or criterion variable, proceed to step 4.

Step 4: Split the total sample into subgroups on the basis of the suspected moderator and test of significance for differences in predictive validity across subgroups. If significant differences exist, the variable is a homologizer. Otherwise, it is not a moderator and the analysis is concluded.

4. RESULTS

Table II reports means, standard deviations and *Pearson* correlations relating to the resulting sample of 365 firm year-end observations using the *Stata* econometric software. Our key dependent variable is performance measured by ROA ratio. The table shows that on average, sample firms generate profit in relation to its overall resources of about 5%, with a standard deviation of 5.5%. Focusing on the independent variables, the mean value of ETR is about 26%. The standard deviation is 13.75%, which highlights the dynamic nature of tax planning. For each of the three external monitors, the mean is: IOWN (12.12%), NA (20.75), and PWCEY (0.73), with standard deviations of 11.62%, 7.33, and 0.45, respectively. The firm related characteristics can be summarized as follows: the mean (standard deviation) of SIZE and OE are 4.39 (0.80) and 21.48% (13.19%), respectively. Expressed as a percentage of equity, total debt (LEV) indicates an average of 118.49% with the large standard deviation of 94.52%. Overall, these results suggest that the sample firms present large variability with respect to these measures.

Table II. Descriptive statistics and correlations

	Variables	Mean	Std. Dev.	1	2	3	4	5	6	7
1.	ROA (%)	5.060	5.504							
2.	ETR (%)	25.695	13.746	-0.166						
3.	IOWN (%)	12.116	11.623	0.046	-0.151					
4.	NA	20.747	7.330	-0.021	0.127	-0.125				
5.	PWCEY	0.726	0.446	-0.203	0.001	0.019	-0.101			
6.	OE (%)	21.480	13.187	0.030	0.032	-0.032	-0.151	0.024		
7.	LEV (%)	118.496	94.522	-0.213	-0.048	-0.034	0.064	0.035	-0.116	
8.	SIZE	4.399	0.802	-0.017	0.272	-0.160	0.247	0.030	0.244	0.101

Notes: N = 365; correlations greater than 0.100 are significant at the 5% level; correlations greater than 0.150 are significant at the 1% level. The table presents descriptive statistics and pairwise correlations between key regressor variables by using Pearson's correlation coefficients. The variables included are: ROA is the firms' net income divided by the book value of total assets. ETR is defined as the percentage of total tax expense to pretax income. IOWN is the percentage of firms' shares owned by intitutional shareholders with ownership stakes of ≥ 3% in at least one period in the Orbis database. NA is the number of analysts' earnings estimates reported in the Thomson database. PWCEY is a dummy variable which is coded 1 if the auditor is PWC, or E&Y, and 0 otherwise. OE is computed by total wages and salaries to operating profit. LEV is defined as the total debt divided by the book value of equity. SIZE is the natural log of number of employees.

As is apparent from the correlation matrix, multicollinearity may be an issue since the correlation coefficients between various independent and control variables are significant. An alternative way to test for multicollinearity is to compute the Variance Inflation Factor (VIF). Given this test in our subsequent analysis, the VIF statistics -none of which exceeded 5.35- are below the rule of thumb threshold of 10 (Chatterjee and Hadi, 2006). So, the problem of multicollinearity does not seem critical, and thereafter, the empirical analysis could be interpreted with greater confidence.

As described earlier, a series of regression models are intended to test for moderators of the form of the relationship between tax planning and firm performance. Before doing so, as we employed a panel structure of data, questions of heteroscedasticity and autocorrelation are raised. These tests, not reported to save space, prove significant and we estimated the models presented in Table III using Generalized Least Squares (GLS) regression. It is a technique for estimating the unknown parameters in a linear regression model. The GLS is applied when the variances of the observations are unequal (heteroscedasticity), and/or when there is a certain degree of correlation between the observations. In these cases Ordinary Least Squares (OLS) can be statistically inefficient, or even give misleading inferences.

Table III. Hierarchical regression analysis of select external monitors on the relationship between tax planning and performance

Variables	Model I	Model II	Model III.1	Model III.2	Model III.3
OE (%)	-0.015**	-0.001	0.000	-0.001	-0.012*
LEV (%)	-0.011***	-0.010***	-0.010***	-0.010***	-0.011***
SIZE	-0.047	-0.295***	-0.299***	-0.295**	0.084
ETR (%)	-0.066***	-0.065***	-0.036***	-0.038	-0.117***
IOWN (%)		0.011	0.072***	0.070***	0.090***
NA		0.020*	0.013	0.015	-0.043*
PWCEY		-2.570***	-2.346***	-2.389***	-4.398***
ETR*IOWN			-0.002***	-0.002***	-0.003***
ETR*NA				-0.000	0.002**
ETR*PWCEY					0.106***
Wald	564.16***	439.82***	374.98***	346.21***	215***

*Notes: N = 365; * significance at the 10% level; ** Significance at the 5% level; *** Significance at the 1% level. The table reports the results from regressions in panel data of ROA on alternatives specifications of ETRs, external monitors and control variables. Variable definitions are provided in Table II.*

Table III shows a negative and significant relationship between tax planning measure and firm performance, ETR is statistically different from zero. The control variables have generally significant coefficients which are robust to controlling for external monitors. This result is not consistent with stakeholders concerns about risk in tax or other tax planning related risks, for example, the risk related to inspection or investigation by tax authorities. But it could be explained that firms are interested in tax planning in order to improve business performance (Minnick and Noga, 2010).

The next set of results examines whether a variable is a moderator of either the form or the strength of the relationship between the predictor and dependent variable. The first step is to test whether our various moderator variables interacts with the predictor variable. In column (6) of Table III, results suggest, in conformance with our hypothesis 1.1, that institutional investors moderate the form of the tax planning-performance relationship. They appear to involve themselves directly in the tax planning activities. The positive significant coefficient with respect to IOWN is consistent with the Le et al. (2006) finding on the active and effective monitoring role played by institutional investors. Interestingly, we find evidence that securities analysts moderate the form of the tax planning-performance relationship, indicating that they may actively involve themselves in the tax decision-making process perhaps because of their interact with firms' managers. The variable NA is negative suggesting that an increasing number of analysts is associated with lesser firm value. This result could be explained by the using of accounting-based performance. In this study, we provide the evidence on the importance of external auditors in explaining the relationship between tax planning and firm performance. Our results suggest that external auditors' specialization directly influence that relationship in accordance with hypothesis 3.1. The variable PWCEY is consistently negative and statistically significant. This suggests that auditor specialization is more effective in reducing potentially incoming-increasing earnings management (DeBoskey and Jiang, 2012).

Subsequently, we test the possibility that such external monitors moderate the strength of the relationship between tax planning and performance. In order to do so we split consecutively the sample by reference to the median value of institutional ownership and number of analysts (which were 9% and 20, respectively). Also, we split the sample at whether external auditor is PWC, or E&Y, or not. We then regressed tax rates along with our control variables on firm performance for each sub-sample. The regression models are presented in Table IV.

Table IV. Subgroup analysis of moderating effects on the relationship between tax planning and performance

Panel A: Effect of institutional investors on tax planning-performance relationship		
Variables	***institutional ownership***	
	"Low"	***"High"***
OE (%)	-0.002	-0.018
LEV (%)	-0.010***	-0.020***
SIZE	-0.290	0.060
ETR (%)	-0.046**	-0.122***
F value	3.66***	3.18***
Adjusted R^2	0.151	0.124
Difference in R^2		0.027***
	$N = 180$	$N = 185$
Panel B: Effect of securities analysts on tax planning-performance relationship		
Variables	***Number of analysts***	
	"Small"	***"Large"***
OE (%)	0.006	-0.045*
LEV (%)	-0.019***	-0.010***
SIZE	-0.054	0.043
ETR (%)	-0.095**	-0.085***
F value	2.63***	4.86***
Adjusted R^2	0.091	0.215
Difference in R^2	0.124***	
	$N = 195$	$N = 170$
Panel C: Effect of external auditors' specialization on tax planning-performance relationship		
Variables	***PWCEY***	
	"Yes"	***"No"***
OE (%)	0.014	-0.112
LEV (%)	-0.002	-0.043***
SIZE	-0.264	0.985
ETR (%)	0.013	-0.171***
F value	2.95***	6.19***
Adjusted R^2	0.081	0.320
Difference in R^2	0.239***	
	$N = 265$	$N = 100$

*Notes: * significance at the 10% level; ** Significance at the 5% level; *** Significance at the 1% level. . The table reports the results from regressions in cross section data of ROA on alternatives sets of ETRs and control variables. Variable definitions are provided in Table II.*

By examining Table IV (Panel A), we note that institutional investors moderate the strength of the relationship between tax planning and resulting firm performance, thus providing support for hypothesis 1.2 (a Chow test of the difference in R^2 between the two models proved to be significant). Panels B and C suggested the same possibilities for securities analysts and external auditors in conformity with expectations of hypotheses 2 and 3.2. This finding indicates that our select external monitors have an indirect effect on the tax planning-performance relationship. They might focus on general corporate governance activities by crafting effective contracts with top managers and developing effective internal control (Le et al., 2006). Interestingly, for firms certified by PWC, or E&Y the tax planning was found to be insignificant providing strong evidence that audit industry specialization constrains income-increasing earnings management.

5. ROBUSTNESS CHECKS

To further explore the validity of our hypotheses of external monitors moderating effects on the relationship between tax planning and firm performance, we perform a series of sensitivity tests consistent with those documented in the literature. Notably, we employ alternative measures of the dependent variable and additional control variables in the regressions. Qualitatively similar results to those reported in Table IV are found, and therefore are not reported in tables for space reasons.

It is presented in many textbooks that performance may reflect different things to different users. Thus, different indicators of performance should be considered. In this study, two different ratios are used: Return on Equity (ROE) and Earnings per Share (EPS). The first ratio (ROE) indicates the profitability of the capital supplied by common stockholders. It is defined as the net income divided by the book value of equity. The second ratio (EPS) is a company's net income expressed on a per share basis. Regressing ROE onto the independent variables in models I, II and III produce in most cases qualitatively identical coefficient estimates to the results in Table IV. However, in model III, the previously significant ETR coefficient changes sign; it's now positive. When using EPS in model III, in contrast to the significant negative relationship reported in Table IV for NA, no statistically significant coefficient arises with respect to NA unlikely to the other external monitors' variables.

Next, we include insider ownership and the natural logarithm of firm age as additional control variables. This inclusion is designed to capture, first, agency theory predictions. Finkelstein and Boyd (1998) indicate that insider ownership helps to align the interests of shareholders and executives. Second, Firm age establish the timely capacity to anticipate and adapt to environmental changes, thereby enhancing the performance (Loderer and Waelchli, 2010). Results are qualitatively no different from those in Table IV and not appear to be biased for omitted firm specific characteristics.

In addition, we use the same analytical method on the sample of 425 year-end observations. This sample differs from our initial sample, since it includes all the year-end observations which meet the original sample criteria without deleting any negative pretax income or extreme ETRs data. Results did not change significantly but the overall significance of models decrease. Regressions are also carried out up by year to allow us to make a fuller picture of the link between tax planning and firm performance. Annual results suggest that ETR coefficient is no longer significant; it's not significantly different from zero. Caution should be exercised in interpreting this as evidence of a possible linkage between years. This adds strength to the need to consider several years of data when drawing conclusions on tax planning (Le et al., 2006).

6. CONCLUSIONS

This research will end by summarizing the results of the study. The research question posed by the study asked whether external monitors (e.g., institutional investors, securities analysts, and external auditors) moderate the tax planning-firm performance relationship. Most importantly, we analyze whether this external monitors influence the form (direct effect) or the strength (indirect effect) of that relationship. The analytical procedure proposed by Sharma et al. (1981) implies that the two effects are mutually exclusive. However, according to Le et al. (2006), external monitors may have both direct and indirect effects. In fact, they may have a direct effect when they influence the tax decision-making, and they may have an indirect effect by engaging in governance activities.

Our overall conclusion is that a consistent negative relationship between tax planning and firm performance holds which robust to a number of firms' specifications. Our paper offers some specific contributions concerning the efficacy of select external monitors in influencing the tax planning-performance relationship. Results showed that these corporate governance mechanisms have moderating effects of the form and the strength on the relationship between tax planning and performance. Consistent with our expectations, we find that both institutional investors and securities analysts appear to involve themselves directly in the firms' tax decisions. Also, they may indirectly influence the effectiveness of firm tax strategic. Similarly, results suggest the same evidences for external auditors.

Further, our results are robust to alternative measures of firm performance, to several additional control variables, and to a variety of alternative specifications. However, in contrast to UK findings of Abdul Wahab and Holland (2012), institutional shareholders do not appear to moderate the agency costs associated with tax planning. This difference suggests that attention should be exercised when interpreting existing research due to tax related differences that exist between countries.

In this research, we expanded our understanding of the nature and significance of the moderating effects of select external monitors on the relationship between tax planning and firm performance. One research avenue is to test whether the moderating effects are exacerbated in the presence of various managerial behaviors in different settings.

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IS AGENCY THEORY DOMINANT IN EXPLAINING THE BOARD ROLES OF MALAYSIAN LISTED FIRMS?

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Abstract

This study examines the experiences of board members regarding their roles, the conduct of board meetings, and their influence on the appointment of new directors, the influence of "major" shareholders on board decisions, and the protection of the interest of the minority shareholders. The main objective of this study is to determine whether agency theory plays a dominant role in explaining the roles of the directors of Malaysian listed firms. Semi-structured interviews were carried out amongst selected directors. Our results suggest that agency theory alone is not sufficient to explain the complex issues involving board roles. Rather, a clearer picture emerges with the integration of agency theory and wider theoretical perspectives (i.e. stewardship and resource dependency). Although there is a constrain in accessing the board, this should not hamper future studies on examining other issues that could affect board roles such as effectiveness of the chairman, non-executive directors and board sub-committees. Studies of this nature are important as the board has an important influence on the decision making process.

Keywords: Board Roles, Board Process, Agency Theory, Stewardship Theory, Resource Dependence Theory, Malaysia

1. INTRODUCTION

Issues of corporate governance, especially the roles of the board of directors, have received a lot of public attention with the collapse of large corporations in the US, the 1997 Asian financial crisis and the recent 2008 Global Financial Crisis. Corporate governance is a crucial issue in organizations because it serves as an important mechanism to ensure managers work in the interest of shareholders (Shleifer & Vishny, 1997). Corporate governance mechanisms could be internally and externally derived. As part of the internal governance mechanisms, the board of directors is regarded as one of the important elements of corporate governance. Jensen (1993) contends that the board is at the apex of a firm's corporate governance structure. Similar view on the position of the board of directors is also held in Malaysia, as reflected in the Malaysian Code of Corporate Governance. But issues with regard to board of directors are expected to be different across firms. For example, with respect to the maintenance of a board, for a small and closely held firm, the agency problems are not severe because the conflict between the owners - manager is lesser as compared to a large firm with wide ownership dispersion. Hence, the agency costs are predictably small as well for a small firm compared to a large firm.

From the legal viewpoint, having a board is part of the legal requirements in incorporating a company. The main purpose of having a board is to protect the company's shareholders from management moral hazards. The directors' fiduciary duty requires directors to act in good faith for the interest of the company. Directors are expected to actively involved in setting the direction of the company, making strategic decisions and monitoring management to ensure that management behaviours are consistent with shareholders' value maximization goals. However, the personal goal of a firm's director may not be congruent with the objectives of the shareholders. Hence, criticisms have been levelled at directors for not always fulfilling their responsibilities and for failing in their duty to protect shareholders. Specifically, the monitoring roles of the board are perceived to be compromised because of managerial domination, asymmetry of information, ineffective board meetings, and lack of checks and balances.

Researchers have attempted to identify board structures (i.e. board size, the proportion of outside directors on the board, and the board leadership structure) that could enhance company performance to meet shareholders' expectations (Abdullah, 2004; Baysinger & Butler, 1985; Brickley, Coles & Jarrell 1997; Conyon & Peck, 1998; Ponnu & Karthigeyan, 2010; Zainal Abidin, Mustaffa Kamal & Jusoff, 2009). Yet the results of these studies remain inconclusive. Finkelstein and Mooney (2003) give examples of five companies that were involved in financial scandals although they had a sound board composition and leadership structure in the year before the scandal hit the companies. As shown in Table 1, Enron, one of the companies involved in a scandal, had 86% outsiders on the board and the company separated the roles of the CEO and the board chairman. This anecdotal evidence seems to suggest that board structure does not provide a strong indicator e that leads to conclude whether the corporate governance of a company is strong or. Thus, in this research, we explored the role of directors using a different indicator i.e. board process (e.g. board roles and board involvement in decision making) which we expect to reveal the effectiveness of the board.

Table 1. Board of five companies in the year before the scandal hit each company

Company	*% Outsiders*	*% Director with shareholdings*	*Board size*	*CEO duality*
Enron	86%	100%	14	No
WorldCom	75%	100%	12	No
Global Crossing	73%	91%	11	No
Qwest Communications	64%	92%	14	No
Tyco International	73%	100%	11	Yes

(Source: Finkelstein & Mooney, 2003)

To understand the board process, many studies have been carried out focusing on the roles of the board (e.g. Johnson, Daily, & Ellstrand, 1996; McCabe & Nowak, 2008; Muth & Donaldson, 1998; Nowak & McCabe, 2003; Roberts, McNulty, & Stile, 2005; Stiles, 2001; Useem & Zelleke, 2006; Zahra & Pearce, 1989). Several theories have been applied to explain board roles, namely agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976), resources dependency theory (Pfeffer, 1972) and stewardship theory (Donaldson & Devis, 1994). Of all these theories, agency theory is dominant in governance research (Dalton, Daily, Certo, & Roengpitya, 2003; Daily, Dalton, & Cannella, 2003; Shleifer & Vishny, 1997). The dominance of agency theory in explaining the board of directors is primarily due to the fact that the board functions as the monitor of management (i.e. the agent) on behalf of the shareholders (i.e. the principal). Given the conflicting findings thus far in explaining board roles, the application of agency theory alone has cast doubt. The lack of consensus among the theories may indicate that the board roles are perceived to be executed differently (Johnson, Daily, & Ellstrand, 1996). Daily, Dalton and Cannella (2003) argue that other theories, besides agency theory, complement but not replace agency theory. This is because the board is not only shouldered with oversight role, but it is also expected to lead and guide management to increase the shareholders' value. Thus, the latter role demands different theories such as stewardship and resource dependency to explain the functioning of the board.

Malaysian companies have different governance characteristics from their US or the UK counterparts, where most of the studies on board roles have been conducted. The board is expected to be a sound governance mechanism since market control in Malaysia is evidently weak as compared to developed countries where shareholder activisms and hostile takeovers are very common following a company's poor performance. In Malaysia, shareholder activism is also considered weak and news about hostile takeovers have never been heard of. Thus, the responsibility to ensure good governance lies with the board of directors. However, in Malaysia, as in other East Asian countries, the effectiveness of the boards is constrained since they are probably dominated by large owners (controlling owners) due to ownership concentration. In fact, it has been found that two-thirds of East Asian companies are controlled by a single largest shareholder (Claessens, Djankov, & Lang, 2000). Claessens, Djankov, and Lang also document that more than two-thirds of Malaysian listed companies are in family hands. Further, they show that 35% of the top 20 Malaysian listed companies are controlled by families and it goes to 84% for the smallest 50 companies. In an earlier survey, Claessens, Djankov, Fan and Lang (1999) found that one-fourth of Malaysian corporate sectors are controlled by 10 families. From the perspective of agency theory, this pattern of ownership may mitigate agency problem as these large shareholders have greater incentives to monitor managers more closely (Shleifer & Vishny, 1997). However, it is also recognized that these large shareholders may ignore the interest of other minority shareholders with regards to matters like transferring out of funds to finance new ventures, paying off personal debts or accumulating funds in foreign banks (Johnson, Boone, Breach, & Friedman, 2000). The interest of the large shareholders is predicted to be well protected because, by virtue of their voting rights, they should be able to decide who should be on the board of directors. Thus, the direction of the company, which is decided by the board, may not reflect the interest of other minority shareholders. In other words, the boards are dominated by certain owners or in this case controlling owners at the expense of other minority shareholders. Hence, given the concentration of ownership, the agency problem in Malaysia is not primarily due to the separation between owners and managers, but rather it is due to the conflict between large shareholders and minority shareholders.

As attempt to understand board roles and the theory that is capable of explaining them, this study explored the main role performed by the board of directors. In this regard, this study attempts to document the directors' personal experiences working as directors in listed companies. The role of outside directors in comparison to executive directors is also discussed. In addition, we also examined issues that are commonly raised in board meetings. In short, our findings could provide evidence on the extent of board performance in assuming control and service roles. With such evidence, we would unveil the theories that explain the roles of board in Malaysia. This study also investigated the manner in which a new director is appointed to the board and the extent of involvement of nomination committee in this. By doing so, the study would shed some insight into the degree of independence in the appointment of new directors to the board. It is generally argued that outside directors are appointed to the board based upon CEO's or existing directors' recommendation, resulting in "the old boys" network. Finally, this study also attempted to find out whether the board decisions are influenced by controlling/major shareholders and if this is the case, what steps are taken to protect the minority shareholders' interests.

2. BOARD ROLES

Two main roles of directors have been identified in previous literature, namely control role and service role (Johnson, Daily, & Ellstrand, 1996; Zahra & Pearce, 1989). The control role refers to the legal duties (fiduciaries) of the board as a whole to monitor the management on behalf of the shareholders. This role includes hiring and firing the CEO and other top management, determining executive pay, and monitoring management to avoid the occurrence of expropriation of minority interests. Service role is to provide advice and counsel to CEO and other top management. The service role, if effectively delivered, will provide guidance to the management on specific areas. Fulfilling this role implies the need for board diversity so that it can serve as a window to the outside world by bringing various experts into the board. Diversity in the board should strengthen the board especially in guiding management, for instance, in formulating the company's strategic plans. Additional critical roles of the board are strategy role (Zahra & Pearce, 1989) and resource dependency role (Johnson, Daily, & Ellstrand, 1996). Johnson, Daily and Ellstrand include board participation in the formulation of strategy (strategy role) as part of service role of the board. On the other hand, Zahra and Pearce (1989) consider enhancing company reputation and establishing external contact (i.e. resource dependency role) as part of the service role of the board.

In a highly concentrated ownership environment where the number of corporate owners is small, the owners or their representative on board are likely to be actively involved in both control and service roles to ensure the effectiveness of their companies (Zahra & Pearce, 1989). Concentration of ownership is a common phenomenon in most countries outside the USA and the UK (Claessens, Djankov & Lang, 2000; Denis & McConnnell, 2003; La Porta, Lopez-De-Silanes, & Shleifer, 1998, 1999; Shleifer & Vishny, 1997), including Malaysia (Claessens, Djankov & Lang, 2000; La Porta, Lopez-De-Silanes, & Shleifer, 1998). The owners of sizeable blocks of shares (ie. blockholders) have a greater incentive to monitor management to ensure better performance. However, the structure of a company's ownership may give rise to different effects on the company. When the proportion of shares that are controlled by blockholders exceeds a certain level, these individuals and groups may use their control over the company or their influence on the board to generate their own private benefits (Amihud & Lev, 1981; Morck, Shleifer & Vishny, 1988; Shleifer & Vishny, 1997). Blockholders may become a controlling owner who can influence or even direct the decision-making processes and strategies of the company through their representatives on the board. Thus, while blockholders enjoy their private benefits, the other minority shareholders of the firm suffer from corporate decisions and performance that may not be beneficial to them. The board is merely seen as a rubber stamp if a blockholder is an active shareholder as the board is used to pursue the blockholder's interest which may not be congruent with those of the minority shareholders as argued by managerial hegemony proponents. Therefore, the effects of blockholder ownership depend on the tradeoffs between the governance benefits of having blockholders and the cost of private benefits extracted by the blockholders (Denis & McConnell, 2003).

A working board is the one which plays an active role in a firm's decision making processes. Decisions on strategy and other matters (Zahra & Pearce, 1989) are made formally in board meetings. The company is expected to make better decisions when the board has more involvement in and gives more attention to corporate affairs (Vafeas, 1999). Wan and Ong (2005) find that board process, which is defined as decision making activities, plays a more important role than board structure. However, prior research has not focused on board process of decision making or board meetings.

2.1. Theoretical Perspectives

The roles of the boards are viewed differently from different perspectives but they tend to be complementary. Agency theory is the most recognised perspective in explaining the contribution of the board (Zahra & Pearce, 1983). However, empirical evidence is mixed. Thus, several alternative theories (i.e. legalistic, resources dependence, class hegemony, and stewardship) are proposed in addressing issues of the board. The board roles from different perspectives such as agency theory, stewardship legalistic, resources dependence, class hegemony/managerial hegemony, are shown in Table 2.

Table 2. Theoretical perspectives of the boards of directors

Items	***Perspectives***			
	Agency theory	***Stewardship***	***Resource dependence***	***Class hegemony / managerial hegemony***
Board role	The primary role of boards is to monitor the actions of agents (executives) to ensure their efficiency and to protect principals' (owners) interests.	Ensure the stewardship of corporate assets.	Boards are a co-optative mechanism for extracting resources vital to company performance. Boards serve a boundary-spanning role. Boards enhance organizational legitimacy.	Boards perpetuate the power and control of the ruling capitalist elite over social and economic institutions. Board "a legal fiction".
Theoretical origin	Economics and Finance	Organizational Theory	Organizational Theory and Sociology	Marxist Sociology/ Organization theory

(Source: Stiles, 1997; Zahra & Pearce, 1989)

Agency theory holds that the board plays a pivotal role in ensuring that managers act in the best interests of shareholders (Fama & Jensen, 1983) and hence the emphasis on the board is to monitor management. Management, who is composed of professional managers with insignificant shareholdings, is seen as pursuing their self interests at the expense of the firm's shareholders.

To curb the possibility of abuse of power, the board of directors retains the ultimate control by ratifying and monitoring major managerial decisions although most of the decisions are delegated to managers (Fama & Jensen, 1983). Thus, agency theory regards the board of directors as an essential control mechanism in a firm (Hart, 1995). The board is seen as a tool to reduce agency costs and thus the agency conflict which incur due to goal incongruence between owners and managers (Dallas, 1996). Agency theory, which is widely accepted in economics and finance, is different from the legal perspective with regard to the source of directors' power. Legally, the source of directors' power is state law, whereas agency theory considers that directors' power is delegated by shareholders (Johnson, Daily, & Ellstrand, 1996). Thus, agency theory emphasizes decision process in relation to how the board monitors managers in order to mitigate conflicts between managers and shareholders. Control is the primary role of the board. To enhance the board's incentive to monitor management, agency theory suggests ownership by manager to align the interest of manager and shareholders, higher proportion of outside directors on the board, and non-dual leadership to increase independence of the board (Muth & Donaldson, 1998).

Resources dependency perspective considers that the board as a firm's boundary spanner (Zahra & Pearce, 1989). In a company, the board is viewed as a vehicle to interact with the external environment and thus acts as a co-optation mechanism for seeking access to external resources for corporate performance enhancement (Johnson, Daily, & Ellstrand, 1996; Pfeffer, 1972). The resources dependency perspective suggests that the role of the board be involved actively in the formulation and implementation of the firm's corporate strategy (Zahra & Pearce, 1989), and in this manner the board is viewed as a facilitator for strategy formulation/implementation (Baysinger & Butler, 1985). The perspective views that directors who have link with outsiders are likely to have access to external resources (Muth & Donaldson, 1998). However, this view of the directors' roles is still debatable since they have the power to utilize corporate resources for their own interests. Nevertheless, this theory is well accepted in organizational theory and sociology.

Stewardship theory describes the board as a good steward of the company. They work for corporate high returns. The theory views that the board's strategic role contributes to the stewardship of the board (Stile, 2001). Having an executive director dominating the board and a CEO chairing could provide an additional motivation to the board to lead to better firm's performance (Donaldson & Devis, 1994; Muth & Donaldson, 1998). The appointment of outsiders to the board is merely seen as a cultural habit to make the company look "more business-like" (Turnbull, 1997). This is another theory of the board in organizational theory.

The class hegemony views the board as a means of perpetuating the powers of the ruling capitalist elite. Elite groups are those who influence the decisions and policies of the companies because of their positions, such as owners of large shares or incumbent top managers (Useem, 1980). The term managerial hegemony is used when management dominates the board. The ability of the board to perform the control or governance function effectively is arguable (Kosnik, 1987). The board is seen as no more than just a legal fiction (Mace, 1971; Kosnik, 1987). The board plays a passive role in the firm's strategy formulation or in leading the firm. In fact, they do not perform the control role because they themselves are dominated by management. Hence, a company is run and dominated by the management team rather than by the board (Stiles, 1997). Thus, the board role is reduced to merely "rubber stamp" all management decisions. To overcome the problems, contra-managerial hegemony theory is suggested to diminish managerial influences over board (Dallas, 1996).

Among the theories on the contribution of boards, Zahra and Pearce (1989) conclude that class hegemony is the most controversial one because of its political underpinnings. In contrast, agency theory is the most widely recognized because of its recognition of the imperfection of corporate governance due to potential conflicts between agents and principals.

2.2. Board structure, roles and theories

Board roles to a large extent are influenced by the degree of their independence and monitoring intensity which are normally indicated by their structure i.e. board size, board composition and leadership structure (Jensen, 1993). Table 3 summarizes the board structures that will predictably increase a firm's value according to the respective theories (Muth & Donaldson, 1998).

Table 3. Recommended board structure by different theoretical perspectives

Agency	*Stewardship*	*Resource Dependency*
Non-dual leadership Higher proportion of outside directors in the board Larger board size There is a closer alignment of interests of board members and the interests of shareholders Board with higher average age Board with lower average tenure Board members are more independent of management	Dual leadership Higher proportion of executive directors in the board Smaller board size A greater alignment of the interests of board members and the interests of management Board with lower average age Board with higher average tenure Boards with a lower level of independence	Boards with higher level of external organisation links Boards with a higher number of links among directors

(Source: Muth & Donaldson, 1998)

Agency theory focuses on monitoring and control mechanism to align the interest of owners and managers (Fama & Jensen, 1983). Consequently, it recommends the board to have more outsiders and non-duality leadership structure (i.e. the separation of chairman and CEO) (Kiel & Nicholson, 2003). In contrast, stewardship theory believes managers are good stewards of corporations and they understand the business better than outsiders. Thus, stewardship theory recommends board to have more insiders to ensure effectiveness in governing the company (Kiel & Nicholson, 2003). Since resource dependency theory views board as an important boundary spanner that has the ability to bring outside resources to the company, more outsiders are expected to be in the company (Daily, Dalton, & Cannella, 2003). Agency theory and resource dependency theory stress on appointing more independent directors in order to strengthen the effectiveness of the board. However, while independent directors in agency theory perform primarily the control function, independent directors in resources dependency theory discharge primarily the service/counsel roles.

Existing empirical evidence are unclear with respect to whether the structure of the board (measured by board size, board composition and leadership structure) is significant in providing effective corporate governance. Thus, recently board process (board meeting and selection) has been used to indicate board effectiveness (Finkelstein & Mooney, 2003).

As mentioned earlier, board main roles are control and service roles (Johnson, Daily & Ellstrand, 1996; Zahra & Pearce, 1989). Some add strategy and resource dependency as critical roles of directors (Okpara, 2011; Ong & Wan, 2008). Based on agency, stewardship and resource dependency theories, Ong and Wan (2008) link the roles of board (i.e. control, service, strategy, and resource dependency) with the board structure (i.e. board independence and board size). Their findings suggest that, for agency theory, the board should be independent (i.e. more outsiders on the board) and small in size for effective monitoring or controlling roles. In addition, independent directors on the board and large board size also provide service roles by giving valuable advice to management. Further, outsiders with industry experiences can give better strategy suggestions in performing their strategy roles. However, small size of board is perceived to make better decisions. According to Brennan (2006), to perform the oversight roles effectively as suggested by agency proponents, the roles of directors should include the strategy and service roles alongside with the monitoring/control.

For stewardship theory, Ong and Wan (2008) argue that insider directors are valued for their operational experience and have more time to spend before making decisions. A larger size of board is more beneficial due to the different skills, backgrounds, experiences and expertise in advising management in performing their service roles. In resources dependency theory, outsiders offer advantages to the board as they may link the company with the external environment for strategic information and bring in external resources. With regard to board size, larger board could give a wider link for strategic information. Thus, resources dependency theory covers both strategy and resource dependency roles. More recent papers seem to regard theoretical integration in explaining the roles of directors (Daily, Dalton & Cannella, 2003; Roberts, McNulty, & Stile, 2005).

3. RESEARCH METHODOLOGY

Extensive quantitative research has been carried out to examine the effectiveness of board governance with regard to the relationship between board structure and value-increasing performance, but yet there is no indication of what the best governance practices are. More recent research has started to investigate the effectiveness of the board by conducting personal interviews with board members (Kakabadse & Kakabadse, 2007; Kakabadse, Kakabadse & Barratt, 2006; Kakabadse, Yang & Sanders, 2010; Maharaj, 2009; Mailtlis, 2004; McCabe & Nowark, 2008; McNulty & Pettigrew, 1999; Nowak & McCabe, 2003; Okpara, 2011; Roberts, McNulty & Stile, 2005; Useem & Zelleke, 2006; Vinnicombe & Singh, 2003). In line with the current methodological development, the methodology used in this study is qualitative in nature in an attempt to understand the roles of board of directors. To this end, we employed semi-structured interviews with selected board members of selected Malaysian listed companies. The main advantage of this approach is that it allows data which is readily available in the public domain about a firm's board to be collected. Further, personal interview with directors is the best approach to understand how the board actually operates. The selected board members are expected to answer candidly about their experience in their board. The respondents were chosen from the list of members of the Malaysian Institute of Directors (MID), who have experience in public listed companies (PLCs). A letter was then sent to the company secretary to seek their consent to be interviewed. Then telephone calls were made as a follow up to encourage as many participants as possible and to make an appointment for the interview. Securing their consent to participate was very challenging due to trust and confidential issues. The fact that directors of PLCs normally have a hectic schedule also posed another challenge for this study. In view of these challenges, we finally managed to have 10 directors of PLCs to agree to participate in this study. The directors are aged between 45 and 75 years with experiences in at least three different PLCs.

Because we are interested in understanding the board roles, we thus posed open-ended questions to the directors. The major questions that were asked are as follows:

1. Based on your experience, how would you describe the board's main role?
2. What do the companies expect most from the outside director /non-executive director to contribute?
3. What are the issues that are normally discussed in board meetings?
4. What would you say about how your board operates as a group of directors in board meeting?
5. What are sources of information that your board mostly rely on for making decision?
6. To what extent do you feel the board can influence the appointment of new CEO and the selection of a new director?
7. Do you agree that in Malaysia, as in other East Asian countries, the effectiveness of the boards may be limited since they are probably controlled by controlling owners (due to the

ownership concentration)? To what extent is your board involved in protecting minority shareholders' interests of the firm?

The individual semi-structured interviews were held at the directors' office which lasted, on average, for one hour. All interviews were tape-recorded.

4. FINDINGS

The findings are explained using descriptive analysis in relation to control and service roles as well as to theories of board roles. In explaining the findings, we follow, Useem and Zelleke's (2006) recommendation of determining the frequency of answers. They suggest that the term "most respondents" is used when more than two-thirds follow a practice, "many respondents" when there are one-third to two-thirds of those who follow the practice, and "some respondents" when there are less than one-third. The four areas we focused are board roles, board meeting, influence of board on appointment of a new director, and influence of "major" shareholders on board decision and protection of the interest of minority shareholders.

4.1. Board roles

Controlling/monitoring, service, strategy and resources roles of board have been discussed in previous studies (Johnson, Daily, & Ellstrand, 1996; Okpara, 2011; Ong & Wan, 2008; Zahra & Pearce, 1989). In the discussion concerning their roles, most of the interviewed directors perceived that they are involved in controlling/monitoring. This is evident from the following comments on their main role,

"Look after shareholders' interests…"
"Make sure objective of the company is achieved…."
"Ensure shareholders' intentions are achieved…."
"Provide oversight, check and balance views…"
"Control management performance…"
"Monitor company's performance…."

These comments are in line with agency theory where board monitors the performance of management to align the interests of shareholders and management (Fama & Jensen, 1983). Out of being motivated by their own interests, many of them also indicate that they are honestly concerned about the well being of the company. As mentioned by one of the respondents,

"What is the point of you sitting on the board, but every year the company loses money while you are making money as a director…"

Another interviewee put it this way,

"*…the primary role of the board is to ensure that whatever the purpose a company is set up for, the board ultimately makes sure the objective is achieved; boards are basically policy makers. They are involved in the macro management and have an overview of things"*

Apart from the control/monitoring role, many of the interviewed directors also mention that they also perform the service and strategy roles. Some illustrations of service and strategy roles that they perform are,

"Give advice to management…"
"Keep abreast with business…
"Enhance company's reputation…."
"*Make business plans…."*
"Decide on direction of the company…"
"Search for new business opportunity…"

Hence, the roles that are played by the directors apparently provide support for stewardship theory where the directors also facilitate management in performing duties of the latter (Donaldson & Davis, 1994).

As far as non-executive directors are concerned, agency theory argues that the role of non-executive directors is important in providing check and balanced views (Fama, 1980; Fama & Jensen, 1983; Jensen, 1993). However, our evidence reveals that non-executive directors only receive information in the form of board papers for their evaluation which are circulated prior to any board meetings. Hence, non-executive appear to have a limited amount of information available to them because they are not involved in day-to-day affairs. For this reason, most of the respondents agreed that the company cannot waste its resources by having somebody who is incapable to sit on the board as a non-executive director. Instead, non-executives must have sound professional experience and basic fundamental qualification to perform their role effectively in monitoring management. As pointed out by one respondent,

"*Non-executives are there to make sure that everything is done properly: by asking questions, looking at profit and loss of the company… When they join the company, they are not young, they might be retired civil servant, retired accountant, and they have a lot of experience"*

Having outsiders or non-executive directors could bring benefits to the company. One of participating directors noted that,

"The benefit of having them is only if he is a good professional; he understands the business; and he is a person with knowledge. Most important thing is the reputation that he brings into the company."

Another director acknowledged the existing non-executive director,

"…Whenever proposals are given, he can see something very obviously or seriously wrong. He is basically a watch dog during the company meetings … besides he can give advice on how to go on with the … (strategy)"

But there are several issues that limit the capability of non-executive directors. Some of the respondents felt that the payment made to non-executive directors is too low in comparison with the number of paperwork that has to be completed and the high cost of living presently. Some of them felt that the non-executive directors have a limited time to enable them to provide a sound advice and balanced view on business and compliance matters. So, non-executive directors should have the relevant qualification, experience and also commitment to understand all board papers so that they could provide strong oversight views to the board which are useful in arriving at the right decisions for the company.

Having presented all the views of the respondents, it does indicate that the presence of nonexecutive directors is very important to provide an independent voice in the boardroom. However, agency theory is not the only theory that is capable of explaining the role of the board. Other theories namely stewardship and resources dependency are also important but they tend to complement agency theory (Daily, Dalton & Cannella, 2003). However, class hegemony or management hegemony theory do not obviously mentioned during the interview sessions. But the roles of outsiders particularly of strategy and resource dependency are apparently acknowledged by all respondents. Thus, the views of respondents are in line with previous studies (e.g. Roberts, McNulty, & Stile, 2005; Useem & Zelleke, 2006) that combine other theories to respond to the limitations of agency theory in explaining the roles of the board.

4.2. Board meeting

The frequency of board meetings seems to carry a significant implication on corporate governance of a firm (Vafeas, 1999). Hence, we cannot ignore board roles in board meetings when examining the issues of board governance since most of the decisions are done in there. Most of the respondents agree that the process of decision making is essential to the company. In making a decision, one of directors emphasized that,

"*We have to do what we should do, and sometimes we need to reject the proposal brought by management"*

Essentially, in board meetings, two types of papers are commonly presented, i.e. papers for board's notification and papers for seeking board's approval. In normal practice, the board papers are prepared and distributed to board members before each meeting. However, one of the respondents highlighted a case where management would suddenly bring up papers on the day of the meeting was held without prior notice because they were deemed urgent by the management. When we asked the respondents whether the board rely on the information provided by the management in the board papers, none of the respondents agreed to the statement. They responded that a director's main role is to ask questions for clarification from management. They further said that even though papers for board's notification do not require approval from the board, directors would still ask the "why" question for more clarification on the matters being presented. A string of questions are normally posed when it comes to papers which require board's approval. In fact, it has been noted that directors even start asking questions before the meetings start. One of the respondents explained that,

" … If the paper is critical, board members don't just approve it at one go. We go step-by-step to check on the feasibility (technically and financially); if needed we will get a consultant to assist us in making decision."

All respondents indicated that they normally delegate to sub-committees in helping them make decision. It is thus common for papers or proposals being vetted by the relevant board committees such as investment, risk or audit committee before they are brought to the board for approval or ratification. Since a number of the matters are delegated to the sub-committee, the issues that are discussed in a board meeting are substantially reduced. However, sometimes coordination needs to be carried out between the sub-committee and the board as a whole to reach ultimate decisions. In deliberating the papers that require board's approval, the experience of the outside directors are very crucial. However, one of respondents noted that,

"S*ome outside directors are too extreme when rejecting proposals, some just sit on the fence, some take it seriously and make the point very clear."*

In reference to the participation in board meetings, all respondents seem to agree that a majority of board members participate in the deliberation. Members have high regard for each other's views and they are allowed for constructive dissent. Most of the respondents note that there are no major disagreements on any issues because the board members are professional in their conduct. Sometimes the board may ask the management to revisit and revise the proposal. Occasionally, a decision on a paper is postponed for more information gathering and fact finding especially when the chairman felt that the discussion has become so intense. According to one of the respondents, the atmosphere in a board meeting depends largely on the capability of the chairman is in handling the discussion or the debate that ensues. While some chairmen encourage every board member to participate, or proactively trigger a discussion, others may simply give instructions to management on what needs to be done. One interviewee points that,

"It will be easier if you are in the board with a full blessing of the chairman instead of with the blessing of the board but not the chairman".

Another point highlighted by another interviewed director,

"Level of debate depends much on the individual and the culture. As we know, Malaysians don't really go for debating or arguing ....sometimes non-executive directors don't keep arguing or rejecting proposal to keep themselves longer in the company"

4.3. Influence of board on appointment of new director

Company directors interviewed are of the opinion that a proper way for selecting a new director is by referring it to the nomination committee. The committee is given the task of nominating a new director, who is normally and ultimately ratified by the board. One respondent director noted that networking may be possibly used to get identify nominees for new directors. However, he believes that networking is fine if nobody misuses it because the company may be able to locate and get a suitable director easier through such networking. One of the respondents mentioned that if the nomination committee plays its role properly, without bias or being guided, the person chosen is supposed to be the best person for the company. One of the respondents, who is currently holding an executive post, gave his view,

"*For higher executive positions, head hunting will be more appropriate. If we advertise, no one will respond because he may not want other people to have a wrong idea as to why he left the previous organization and come to a new place. So we look around and call them. Well! Very few quality people are around."*

On the other hand, with regard to the appointment of an independent director, one director said that the term independent director is a misnomer and a contradiction with the notion of the selection process. This is because, he added, it is impossible for non-executive directors to be independent from those who appoint them, regardless of whether they were nominated by the nomination committee or by the controlling shareholders who vote for them for re-election.

Another aspect highlighted by some of the respondents is the act of the directors where directors are expected to act both individually and collectively in performing the stipulated role. Discussion on director acts is related to the board process (Kula & Tatoglu, 2006; Roberts, McNulty, & Stile, 2005).

4.4. Influence of "major shareholder on board decision and protection on interest of minority shareholder

In a highly concentrated ownership company, minority shareholders become powerless unless they have specific legal protection (La Porta, Lopez-De-Silanes, & Shleifer, 1998, 1999). But the major shareholders become more powerful and enjoy more control than the amount of shares they own, given the presence of minority shareholders (Shleifer & Vishny, 1997). The major shareholders are in a better position to expropriate minority interests through their dominant voting rights (Ishak & Napier, 2006). One respondent agreed that the board is always in conflict between having to serve the interest of the major shareholder and to protect minority shareholders interest simultaneously. However, many respondents are of the view that the major shareholder is not a big issue in their companies. They claimed that,

"I never face a situation where a major shareholder influences management."
"The founder and major shareholder of my company is a very nice guy and he listens to the board."
"Major shareholder never imposes on board what he wants."

When asked about the protection mechanism available to minority shareholders, a typical comment given by the respondents is that the basic rights of all shareholders are protected, as illustrated below,

"Shareholders are shareholders whether they are a majority or minority"
"Good board protects all, not only certain groups"

Overall, it appears that there are similarities in the responses to the interview questions on the board roles in protecting minority shareholders.

Protection of minority shareholders' rights has been highlighted as a problem in East Asian. The interests of minority shareholders hardly escape probability of expropriation by management or controlling owners. There is always an issue about protection of minority shareholders and people always see there is a conflict between the need of the majority and the minority. However, one respondent contended that,

"*People do not see the benefits of these two groups of shareholders in relation to total company*'.

He added:

"*If you think it is good for the minority it should be good to the majority, and in fact if it is vice versa, it even carries more weight. If you are going to destroy the company, surely the majority will be destroyed more because they put in more money."*

One of the respondents pointed out that,

"*Major shareholder might influence the decision but not every time because there are minority shareholders' interests that the board must take care. So the board has to consider minority interests. If they don't protect them, they will be questioned in the AGM (Annual General Meeting). Minority Shareholder Watch Dog Group is very active".*

This is supported by another respondent,

"Some minority shareholders are very vocal in AGM".

5. CONCLUSION

This study examined the perceptions of PLC directors based on their experiences as directors. Theoretically, many previous studies rely primarily on agency theory to explain the board roles. We note that the monitoring role, which is a central element of agency theory, is in fact it is the key role played by the board as highlighted by most of the respondents. Upon scrutinizing all the responses given, we find that the result of this study is consistent with that reported by Daily, Dalton and Cannella (2003) where a multi-theoretical approach is essential in explaining the roles of board. In fact, corporate governance research in developed countries has started to integrate different theories in their studies (e.g. McNulty & Stile, 2005; Minichilli, Zattoni & Zona, 2009; Roberts, Zattoni & Cuomo, 2010; Useem & Zelleke, 2006).

Previous studies on the board have reported inconclusive findings as to board effectiveness by focussing on the performance of the company as the indicator of board performance. However, company performance might be a short-term focal point for the director compared to the long-term survival of the company.

"The board may see its role as primarily protecting (not generating) the shareholders' investment by ensuring the survival of the company. Directors may have to make tradeoffs between the amount of risk management should take in generating shareholder value versus the stability and survival of the company (Brennan, 2006, p. 591)

Similarly, as one of our respondents viewed that board should focus on the survival of the company,

"The board must be very clear; their sole objective is to work for the organization not for the people. If the organization survives, everybody will benefit … whether you are an investor, creditor, employee, supplier or customer. The moment the board thinks, for example, 'I'm here to make sure I have good life and good living or I must make my boss very happy, or I want to make out as much as possible so that my shareholders are happy, employees happy' the board is actually showing off. The best way is institutional approach … "

Thus, researchers should not solely focus on monitoring roles of board, but they also must take into consideration the service, strategy and resource dependency roles in corporate governance research. In general, there is a limited investigation on board effectiveness through board process such as decision making and selection of new directors. Previous studies using archival data have overlooked the importance of board process in the real business. There are many important issues and parties involved that have a direct effect on board roles, as mentioned in this study which are yet to be resolved. Hence, further in-depth studies are needed to examine the roles of chairman of the meeting, board sub-committees especially nomination committee and also non-executive directors.

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CONTRIBUTIONS OF EARLY MUSLIM SCHOLARS TO ORIGINALITY OF BOOKKEEPING-SYSTEM

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Abstract

We explored the early Muslim scholars' contributions to the originality of the Bookkeeping system by comparing the contributions of Western academics with those of Muslim scholars. We investigated, also, the knowledge transfer between East and West and how the early Muslims scholars' contributions were part of the fundamentals of the Bookkeeping System. A surveying most of essays that concentrating on developments in the historical bookkeeping literature as well as reviewing historical literature about transfer knowledge between East and West. We found that Muslim scholars' contributions to the originality of the Bookkeeping system could be divided into three stages. Firstly, it began with the foundation of Islam in 610; this sets up the basics of the Bookkeeping System. Secondly, Al-Khwarizmi sets up a comprehensive Bookkeeping System in 976. Thirdly, during the period 1332 to 1418, Al-Nuwayri and Al-Qalqashandi completed the structure of the Bookkeeping System. We found, also, that, from the 8^{th} to the 15^{th} centuries, Muslim scholars represented a knowledge bridge for the West suggesting that Luca Pacioli's work was the outcomes of the Muslim scholars' contributions. It is the first study that links the originality of Bookkeeping system with transfer knowledge between East and West. It is the first research that compare between East and West' contributions towards Bookkeeping' pyramid

Keywords- Islamic Accounting; Bookkeeping; Knowledge Bridge; Luca Pacioli; Al-Nuwayri

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1. INTRODUCTION

History can inform our appreciation of contemporary accounting thought and practice through its power of unifying the past, the present and the future (Gomes et al., 2011). At the same time, the historical perception permits society to evaluate the future of accounting and its artefacts and manifestations. Historical studies in accounting began as long as accounting was an academic discipline and even earlier. Carnegie et al. (1996) debated how history was mobilised by accountants (both academics and practitioners) to support construct "institutional myths" of the ancient roots of accountancy as a human activity. In an influential contribution, Parker (2000) wrote that *"the writing of accounting history is progressively dominated by writers in English discussing private-sector accounting in English speaking countries of the 19th and 20th centuries . . . the scope of accounting history is much wider than this"* (p.66) .

For a long time the invention of double entry bookkeeping was attributed to Luca Pacioli, who, with a certain accuracy, defined this method in his book which was published in Venice in 1494 (Pacioli, 1494). However, in effect, the learned Tuscan friar had not invented anything; merely, he had explained methodically what, for a long time, had been a well-established practice by traders and bankers in numerous Italian towns. On the other hand, there is a debate about the contributions of the Muslim writers who, before Italian banks, set up the foundations for the Bookkeeping System. However, as the paper discloses, the departing argued that, after the dark ages from the 7^{th} to 14^{th} centuries, the transfer the knowledge from the Muslim to western world came about without any acknowledgements. For Pacioli, without documented books before him, the attribution of bookkeeping was different and conflicted with the debate about Accounting as one of the social sciences which developed through accumulative progress as economics or finance. It is important historiographical that Zaid (2000a) considered it was essential to mention the links between Islamic and Italian accounting. However, it locates the paper as at least suggesting that Islamic accounting was an influence on the double-entry systems which Pacioli and others considered to be "the Italian method". Nobes (2001) defended the Italian origin of double-entry, suggesting that the matches, which Zaid identified between assured Islamic practices and Italian counterparts, were not evidence of influence. However, what counts actually as "evidence"? In a response to Nobes, Zaid (2001) detected:

*"The subject of the "double-entry system" . . . requires additional research and development about "who" was responsible for its development, and "where" and "when" it emerged. At present no conclusive evidence occurs as to "who" developed the "double-entry system". All that we do know is that it was used in the Italian republics. Though I confirm that at present no evidence has been found that the "double-entry system" was settled by Muslim scholars or others outside (or inside) the Italian republics, the possibility of a direct or indirect contribution by Muslim accounting scholars to the development of the "double-entry system" through their accounting books, accounting systems, recording procedures and reports, cannot be ruled out. This possibility exists given the influence of Muslim traders on the practices of their Italian counterparts" (*p. 216)

The paper was motivated by three arguments, firstly, the debate about Muslim scholars' contributions towards sciences generally and bookkeeping in particular. Alim (2012) argued that the conventional accounting was a well-established field; however, there is no doubt that a main contribution to the extant body of knowledge on accounting comes from the West rather than the East. In contemporary bodies of knowledge on accounting, utmost theories and frameworks come from the West without any reference or inventions to practices in the East. Also, most Western perspectives on 'accounting' are mainly secular and capitalistic in nature. Such underlying convictions of contemporary accounting theories have resulted in budding incoherence within Eastern societies which are more religious and socialistic. On the other hand, there is much less contribution from the East, mainly from the Muslim world. Secondly, the paper was motivated by little documented individual and small group level work on accounting from the Islamic viewpoint since Chapra (1992), Beekun (1997), Al-Buraey (2003), Ather (2005), Abuznaid (2006) and Ata al-Sid (2007), had explored the field of accounting either directly or indirectly relative to Islamic teachings. Thirdly, the paper was motivated by the importance of the Bookkeeping System. John Lanchester, a successful novelist, described Bookkeeping as *'the most significant business tool ever invented', and it had made probable 'modern accounting techniques, and therefore all of modern business life, and consequently the whole structure of capitalism and the organization of contemporary society . . .'* (Lanchester, 2001).

This study seeks to explore the main value added by Muslim scholars towards bookkeeping system in the West and vice versa. It aimed to build a knowledge pyramid for the bookkeeping system through surveying the Muslim and Western contributions to this system. Furthermore, it targeted whether Pacilio was the original creator of the Bookkeeping System or whether his work was the outcome of that of the Muslim scholars. The paper aimed, also, to investigate the sequenced contributions for Muslim which began with the start of Islam in 610 through to Al-Qalkashandy in 1418. One of this study's main objectives was to investigate the channels of Influence and the transfer of Knowledge between the East and the West. Exploring the knowledge bridge provided answers for the debate between both sides. Consequently, this paper's main contributions are to develop the building of historical contributions by Muslim scholars and Western academics towards bookkeeping system. The paper tries, also, to fill the gap for debate about the creation of the bookkeeping system through exploring how the knowledge transfer from East to West or what is called the Knowledge Bridge. In order to identify the originality of the Bookkeeping System, the study shows the sequenced contributions by Muslim scholars and Western academics.

Based on the above arguments, the study investigated one of the Muslim world's contributions related to the Bookkeeping System. It explored the Islamic history through 1400 years and followed the developed sequences for the bookkeeping knowledge from its starting point for Islam in 610 until 1494 when Pacioli published the first book about a Bookkeeping System. The study aimed to answer the following questions: What are the Western contributions to the Bookkeeping System? Did Muslims make any contributions to the body knowledge of accounting? Who created the Bookkeeping System - Luca Pacioli or a Muslim writer? And finally, what are the stages of integration for building Bookkeeping knowledge between Muslim and Christian contributions or from 610 to 1494 (integrated pyramid knowledge)? Finally, how did the knowledge transfer from Islamic civilization to the western world?

Through exploring the history of the Bookkeeping System, the paper shows that Pacioli's publication represented only outcomes for all preceding contributions with, especially, core contributions from Muslim scholars who interacted with Greek scholars and who were critical in developing and adding value to the building of Bookkeeping knowledge. The Muslim scholars' contributions represented a cornerstone and a Knowledge Bridge for Western world and were basic, also, to Pacioli's work. The copying and translation of Arab work, such as bookkeeping, for Western world is an example of other works which were translated without acknowledgement. In her work al-Ghazali: The Mystic, Margaret Smith exposed undoubted evidences of St. Thomas copying from al-Ghazali's work Ihya Ulum al-Din. She matched the works of the two scholars and found that in several cases *"St. Thomas uses the very words of al-Ghazali."* There were similarities between the themes and the arguments of both works (Smith, 1944). It ought to be remembered that al-Ghazali's was the core source of his ideas. This paper is organized as follows; section ***2*** is an introduction about the debate for the Bookkeeping System's creator (Pacioli or Muslim scholars). Section ***3*** explores the Pacioli and Western Contributions to the Bookkeeping System. Section ***4*** identifies the link between Islam and Accounting as well as explores the roots of the bookkeeping system for Muslim scholars. Section ***5*** shows the Muslim Scholars' Contributions to the Bookkeeping System. Section ***6*** investigates the knowledge transferred from the Muslim to the Western world. Section ***7*** concluded

2. DEBATE ABOUT CONTRIBUTIONS

Comparatively few historical studies covering accounting in Muslim countries have appeared in English-language journals. Consequently, it should be no surprise that the writers of common histories of accounting have little if anything to say about accounting in these locations. However, he noted that as well as Zaid (2000a) advanced the claim subsequently) there was no evidential support for this hypothesis. Chatfield (1977) mentioned only passing references to accounting in ancient India and ignored altogether Arab accounting. While this review was limited almost completely to English-language material, it is imperative to remember that historical research appropriate to Islamic accounting is published in other languages. Turkish historians are privileged in that a significant amount of archival material has survived from the Ottoman Empire. One of the key problems for historians of Islamic accounting is the destruction of archives over the centuries: the ransacking of Baghdad by the Mongol invaders in 1258 was rivalled by the destruction of the National Library of Iraq in 2003 (Burkeman, 2003). Even when destruction is not considered, the climate in Islamic regions tends to be less encouraging to the preservation of documents. Scorgie and Nandy (1992) described how the way in 18th century Indian account books were constructed provided *"easy access for white ants and other insects" (*p.91).

Scorgie (1994b) was able to consider accounting in 11th and 12th century Cairo because of the serendipitous survival of documents and fragments in the storeroom (geniza) of a synagogue; it was retained due to an aversion to destroying writing which could comprise the name of God. Turkish scholars (for instance, Çizakça, 1995; Orbay, 2005; Toraman et al., 2007; Yayla, 2007a) studied the records of waqfs (charitable foundations); these survived since these entities were established with perpetual endowments and, consequently, were taken over by the state. Also, Ottoman archives preserved estate accounts of deceased persons and Toraman et al. (2006b) inspected the form and content of these documents. Toraman et al. (2006a) studied the accounts of a huge Ottoman business, the Eregli Coal Company, during the 1840s. They found that the corporation's internal financial records were kept by using the traditional Ottoman accounting system; this was fairly different from the contemporary western single double-entry systems.

Oppositely, it is tempting for scholars to enquire whether bookkeeping was developed completely in Italy, or whether the Italian manifestations of double-entry, in the form both of surviving business and public records and of books such as Pacioli's Summa, reflected the inspiration of earlier, Eastern, accounting developments. The wholesalers of Italy and other European countries obtained their first education in the use of cultured business methods from their counterparts on the opposite side of the Mediterranean, most of whom were Muslims, though a few were Jews or Christians (Lieber, 1968). The possible role of Jewish sellers, trading in the Middle East and in transferring accounting methods were debated by Parker (1989) and Scorgie (1994a). Scorgie (1994b) used fragments of documents dating from the end of the 11th and the beginning of the 12th centuries which were found originally in a storeroom of a Cairo synagogue. These were recognized as documents which could be read as initial versions of a journal and a list of debits and credits. In the historical literature of Islamic accounting, this was one of the very few references to original accounting documents.

3. PACIOLI AND WESTERN CONTRIBUTIONS TO THE BOOKKEEPING SYSTEM

Pacioli's book appeared in Venice in 1494 with a ten-year copyright. At the expiration of that period in 1504, the same printers published a particular duplicate of this book under a different title. Pacioli did not claim that he invented double-entry bookkeeping, but, on the other hand, his book included references which showed the existence of ancient customs and numerous methods named after the places where they were used. Therefore he called his described method of bookkeeping as the method of Venice, as well-known as those in use in other cities, the names of which appear in the translation. Twenty-one years after the last date in 1525, there appeared in Venice a very unsatisfactory and imperfect work on bookkeeping by Giovanni Antonio Tagliente; the historians do not say much about it. Forty years after Pacioli's book in the year 1534, Domenico Manzoni published, in Venice, his book on bookkeeping; this became very popular since over a 40 year period it went through six or seven editions. Considering the conditions of those times, this may be termed a wonderful success Manzoni gave complete illustrations of the journal and ledger, with its entries, which, Pacioli did not consider necessary.

Passchier Goessens, a Dutchman from Brussels, was the first writer who was able to leave an impression which lasts to this day was. In 1594, whilst living in Hamburg, he wrote a book on bookkeeping. In his preface, Goessens stated very basically where he had learned the art and the title specified that he had followed the Italian system. He attained his information from some of the earlier Dutch writings. Therefore, German bookkeepers benefited more by the knowledge which the Dutch communicated to them than by what their own countrymen brought directly from Italy. Table 1 shows the development of the historical stage for western contributions. It started exactly 283 years before Pacioli exactly in 1211 when the simple way of bookkeeping was used in Bologna. It shows the progress of Western contributions towards bookkeeping system from 1211 until 1494 when Pacioli issued his book. Furthermore, Table 1 shows the main contributions of western researches from German, Holland and UK; which added to the Bookkeeping System

Table 1. Contributions of Western world towards bookkeeping system development. The period before and after Luca (From 1211:1494)

Year	*Name/ Country*	*Contribution*
The Period Before Luca (1211:1460)		
1211	Bologna	In the initial surviving business account book of the second millennium in Europe – the fragments of a ledger kept in Bologna in 1211 by a firm of Florentine merchants or bankers (Yamey, 2005)
1299-1300	Giovanni Farolfi	The idea of double-entry was invented by banks; the oldest surviving record, which incorporates double-entry principles, is the Giovanni Farolfi branch ledger (Salon, France) for the year 1299-1300 (M. Com, 2004)
1340	Genoa	The books of the massari and magistri racionali of the Community of Genoa are evidence that double entry bookkeeping was a well-established technique in 1340
1335-1410	Datini	Datini conducted a large-scale international business which, today, would be called a multi-national corporation; he used a complete double-entry system of accounts for the control of foreign and domestic operations. The ledgers of Francesco di Marco Datini, the 'merchant of Prato', from Italy are fine examples of initial bookkeeping as practised in Tuscany. He died in 1410 (Gurevich, 1990: pp. 272–273).
1460	Donado Soranzo & Brothers	The oldest Venetian mercantile ledger is that of the firm of Donado Soranzo & Brothers. This ledger has a profit & loss and a capital account.
Luca Period (1494)		
1494	Lucas Pacioli (Italia)	In 1494, Lucas Pacioli's book appeared in Venice with a ten-year copyright. At the expiration of that period in 1504, the same printers published an exact duplicate of this book, under a different title. Both ancient and modern. The title was: Summa de Arithmetica Geometria Proportioni e Proportionalita." Bookkeeping is treated in Part One, Section 9, and Treatise 11. Under the chapter title of "Particularis Computis et Scripturis," translation would mean: "Particulars of Reckonings and Their Recording.
Pacioli's work is the real foundation of all books published in Germany, Holland, Prance and England within the first hundred years after it was written.		

The oldest surviving double entry Genoese ledgers are well-known cartularies of the Community of Genoa. One set of ledgers (1340-1466) belonged to the massari or stewards of the city, and was called *"cartularium massariomm sapientum".* The other set of ledgers (1340-1437) was kept by the magistri racionali and was called *"cartularium magistrorum racionalium".* The two massari were in charge of the massaria, a holistic term which specified the finances of the Commune, whereas the two magistri racionali completed the duty of controlling the work of the massari and their workforces. In the books of the Commune's administration, which we have from 1340, the double entry bookkeeping system existed already existing and was not in its infancy but wholly grown; therefore, we may infer that such a method had been in use for a long time. The books of the Community of Genoa's massari and magistri racionali were evidence that double entry bookkeeping was a well-established technique in 1340. All the essential characteristics of the system were already in place. These were, namely: accounts with alongside divided sections; constant application of the same monetary unit and continuous reference for each entry to its cross-entry; and consistent use of two complete sets of antithetical accounts. Similarly, there is reason to believe that the characteristic instrument of medieval accountancy were found in the massari's ledger, namely, the account with laterally separated sections which followed the outline of the double accounts used in the tabulae rationum cited by classical writings (Martinelli, 1977). Certainly, in the Genoese ledgers, the account had been completed. It was shaped by the requirements of the firm and translated fully into the accounting system. It had been simplified and made more structurally efficient in its mathematical function; and it had been embodied confidently in the system which was controlled by the method.

Accusations with often far-reaching effects were directed merely against Jews. However, even here there were extraordinary exceptions as in Venice which *'resigned herself to acknowledging the first condotta (Association) of Jewish usurers (1382–7) who borrowed money to small borrowers and even on occasion to patricians'* (Braudel 1982). Around 1500, Venice was the scene of the strictest struggle of the Franciscan bankers against Jewish competitors with the founding of the Venetian ghetto as direct significance (Derks 2004). Numerous voices in the 13th and 14th centuries, such as Thomas of Aquinas or Nicolas Oresme, were critical of particular commercial activities but, then again, in the end supported trade and profitmaking as an essential incentive for people who transported goods from places with a supply to places with a demand (see De Roover's stance in Kirshner 1976). The Franciscan monk, Lucas Pacioli who was the author of one of the first treatises on bookkeeping, specified: *'The purpose of every wholesaler is to make a lawful and reasonable profit so as to keep up his business'* (Geijsbeek 1914, 33).

4. ISLAM AND ACCOUNTING

The religion of Islam was founded in Makah in the year 610 A.D. (Abu Addahab, 2002, p. 649) with the disclosure of the Quran to the Prophet Mohammad (PBUH). The Quran presented guidance on social and commercial teachings. Examples of commercial teachings were the instructions of contract (Debit and Credit), finance, business, zakat and ethical rules for guiding business and writing contracts (Al-Baqarah, 2: 282-283). Commerce protracted beyond the Arabian peninsula to parts of Europe, Africa and the Far East. According to Ekelund et al (1983): *"For five centuries, from 700 to 1200 Islam commanded the world in power, organization, and extent of government; in social enhancements and standards of living; in literature, scholarship, medicine, science and philosophy. . . . It was Muslim science that preserved and developed Greek mathematics, physics, chemistry, astronomy, finance or business and medicine during this half millennium, although the West was sinking into what historians generally call the Dark Ages"* (p.26).

Table 2. Contributions of Western world towards bookkeeping system development. From 1518:1639

Year	Name/ Country	Contribution
The Period After Luca (1518:1639)		
1518	Henricus Grarnniateus (German)	He wrote a book entitled "Rechenbiichlin, Kiinstlich, behend nnd gewiss auf alle, Kauffmanschafft gerichtet" comprising mostly a text on arithmetic but devoting some pages to the description of a very poor system of bookkeeping; by a stretch of the imagination, this might be identified as possibly covering double-entry bookkeeping. This work was printed in Erfurt in 1523 and in Frankfurt in 1572.
1525	Giovanni Antonio Tagliente	Twenty-one years after the last date for Pacioli's book in 1525, there appeared in Venice a very unsatisfactory and imperfect work on bookkeeping about which the historians do not say much.
1531	Johann Gotlieh (German)	The first work on bookkeeping published in the German language. The book was published in Nuremberg, three years before Manzoni, the second Italian writer, published his book. The author stated honestly that he had translated his work from the "Welsh," meaning by this term "Italian." His book is considered a brief and very poor copy of Pacioli's.
1534	Domenico Manzoni (German)	He published his book about bookkeeping in Venice; this proved very popular since, over a 40 year period, it went through six or seven editions. Considering the conditions of those times, this may be termed a tremendous success.
1543	Jan Ympyn Christoffels (Dutch)	He was one of the Dutch wholesalers who visited Venice and the northern part of Italy and he stayed there for twelve years. He returned evidently wise in the knowledge of bookkeeping according to the Italian manner and wrote a book on that subject. , he did not live to see his book published; however, during 1543, his widow, Anna Swinters, published his manuscripts in the Dutch and French languages.
1549	Wolfgang Schweicker (German)	This book entitled "Zwifach Buchhalten," was published in Nuremberg. This work cannot be called brilliant, nor is it as exhaustive or as good as that of either Pacioli or Manzoni. However, there is no doubt that he had both of these books at his command and, especially, followed Manzoni.
1581	------------	The first professional organization of accountants was founded in Venice in 1581.
1586	Don Angelo Pietra	Nearly 100 years after Pacioli's book, we find that Don Angelo Pietra published a work on bookkeeping which was fully illustrated with numerous examples.
1588	John Mellis (England)	He was a school teacher and he wrote a book on bookkeeping in London; in his introduction, he stated that it was a reprint of a book by Hugh Oldcastle, which appeared in London in 1543 under the title "A profitable treatyce called the Instrument or Boke to learne to know the good order of the keeping of the famous reconynge called in Latyn Dare and Habere and in English Debtor and Creditor."
1594	Passchier Goessens (Holland)	Passchier Goessens, a Dutchman from Brussels, was the first writer, who was able to leave an impression which lasts to this day. He wrote a book on bookkeeping in Hamburg. in his preface, Goessens stated very simply where he had learned the art and the title indicated that he followed the Italian system. He acquired his information from some of the earlier Dutch writings. Therefore, German bookkeepers benefited more from the knowledge which the Dutch informed them than by that which their own countrymen brought directly from Italy.
1604	Simon Stevin (Holland)	As apparent from the argument in Simon Stevin's book, Bookkeeping made far greater progress in Holland than in Italy.
1608	Simon Stevin (Dutch)	He wrote in Latin a book on mathematics which was published in Leijden. It contains numerous chapters on bookkeeping. These were a reproduction of a book published in the Dutch language on "bookkeeping for merchants and for princely governments", this appeared in Amsterdam
1632	Matteo Mainardi	This book appeared in Bologna. It was of a far later date than the ones stated above. However, it is somewhat remarkable in that it attempts to describe, besides the system for the wholesalers, one for the keeping of executor's and trustee's accounts.
1639	Richard Dafforne (England)	He wrote the book entitled "The Merchants ' Mirror, ". He declared that, there existed in Germany, Italy and Holland a great many able writers on bookkeeping, and he gave a large list of authors. He attributed the existence of these books to the demand for them. He wrote his book in the same order as Stevin, namely, in dialogue style, or questions and answers. Dafforne 's book was published in London

The growth in trade promoted the development of a mechanism for ensuring adequate accountability for cash, merchandise received and disbursed. The introduction and organization of zakat in 624 A.D. encouraged accounting for the purpose of zakat calculation and payment. This development was improved with the formal introduction of accounting books, models and procedures during the time of the second Caliph, Qmar bin Al-Kattab, who ruled between 13 and 23 Hijri'iah (634-644) (Zaid, 2000a). *"Islamic accounting"* would cover North Africa and a large part of sub-Saharan Africa, the Middle East and the territories of the Ottoman Empire, the Indian sub-continent, much of South-East Asia and Indonesia, and great parts of the former Soviet Union. Geographically, *"Islamic accounting"* would have to contain much of Spain between the 8th and 15th centuries and areas of the Balkans. During the golden age of Islam, Muslim commerce stretched beyond the Arabian Peninsula. The expansion of trade encouraged the development of a mechanism for ensuring accountability for wholly business transactions and similarly for compliance with Sharia which standardizes all aspects of life. It involves, also, criminal as well as civil jurisdiction. Every act of the believer must obey Islamic law and observe ethical standards based on Islamic values. Islamic accountants must accomplish their duties in accordance with the regulations of Islam and base their actions on Islamic ethical norms (Afifuddin and Nabiha, 2010).

Therefore, the progress and practice of accounting in Muslim society mirrored Islam as a holistic code of spiritual and material life. These developments and practices were documented in several printed and handwritten books by a number of primary Muslim scholars from 150 H (768 A.D.). Initial Muslim scholars ([24]) approached the practice

[24] These early Muslim scholars included Imam Ash-Shafi, 150-204 H (767-820 A.D.); Abu'Obaid 156-224 H (773-839 A.D.); Kudamah bin Ja-far, whose book was written in 306 H (919 A.D.); Al-Khawarizimi, the author of Mafatieh Al-Uloom (Keys of Sciences) 365 H (976 A.D.); Ibn Rushd Al-Hafied 520-595 H (1126-1199 A.D.); Al-Mazendarany, who wrote his unpublished book in 765 H (1363 AD); Ibn Khaldoon, the author of the renowned book Mokaddamat Ibn Khaldoon (Introduction of Ibn Khaldoon) in 779 H (1378 A.D.); and many other scholars such as An-Nuwairi and Al-Kalkashandy.

of accounting in the Islamic state from a diversity of viewpoints. However, it should be declared that *"the terms accounting and accountant were not used in the early and middle phases of the Islamic state. The particular date on which these terms came into use is not identified but, perhaps could be outlined to the influence of colonization and the introduction of Western culture in the 19th century. The terms Al-Amel, Mubasher, Al-Kateb, or Kateb Al-Mal were the public titles for accountant/bookkeeper and accounts clerk. These titles were used interchangeably in dissimilar parts of the Islamic state. The title Al-Kateb became the main title and was used to contain any person assigned the responsibility of writing and recording information whether financial or non-financial nature"* (Zaid, 2000b). These terms were associated to "accountant" and, as early as 365 H (976 A.D.). Al-Khawarismy (1984) used the term "Muhasabah" for the meaning of accounting which specified that the person responsible for this function was "Muhaseb" (Accountant). Religion drove the growth of accounting in the Islamic state and was associated with the obligation of zakat in the year 2 H (624 A.D.). Accounting seems to have commenced with the establishment of the Dewans for the recording of Baitul Mai (public treasury) revenues and expenses. The particular date of the first application of accounting systems in the Islamic state remains unidentified but it appears that these systems were recognised first by Al-Khawarizmi in 365 H (976 A.D.). Accounting systems deliberated and analysed here were mentioned briefly by Al-Khawarizmi and were completed by Al-Mazendarany. These accounting systems were income-statement orientated and designed to assist the immediate requirements of the Islamic state.

5. MUSLIM SCHOLARS' CONTRIBUTIONS TO THE BOOKKEEPING SYSTEM

Islam organizes the full life aspects by indorsing legislation about wholly walks of life, social, commerce, laws … etc. Rizk (2008); the Holy Quran declares in Al Baqarah verses (2.282) *"Believers! When you contract a debt for a fixed period, put it in writing. Let a scribe write it down between you with fairness; no scribe shall refuse to write as Allah has taught him. Therefore, let him write; and let the debtor dictate, fearing Allah his Lord, and do not decrease anything of it. But if the debtor is of poor understanding, or weak, or is unable himself to dictate, then let his guardian dictate in fairness….."* If we analyse these words intensely, these come from the longest verses in the Quran. We will discern that the Quran structured this type of transaction and it mentioned the criteria and requirements which should be followed by both parties (Debtor & Creditor). According to terms, the contract should be written by a professional and unbiased one who should write the particular value with fixed period in a known document deed which must be written in law. Likewise, if a debtor has a poor understanding or weakness or is incapable himself of dictating the terms, he has to suggest a qualified person to do the agreement process instead of him; this is called "Wakalla" agency.

The obligation of zakat and, hence, the diverse and great amounts of revenues, expenses and associated activities of the Islamic state demanded the establishment of control procedures. These control procedures permitted officials to monitor activities adequately and to discover any deficit or surplus in the state treasury arising from unbalanced books. It is worthwhile noting here two cases which replicate the efficiency of these internal controls. The first was the discovery of a deficit of one Derham in the Baitul Mai. This was the discovery of the Sahaby (Prophet's Companion) Amer Bin Al-Jarrah who wrote to the second Caliph, Omar bin Al-Khattab, informing him about the deficit (Lasheen, 1973). Likewise, Al-Mazenderany (765 H, 1363 A.D.) outlined the significance of internal controls applied in all Dewans. The second case was the discovery of an unrecorded expense which caused a deficit. This deficit caused the accountant to pay 1,300 Dinars for not recording the transaction. This lost expense was uncovered subsequently when, at the end of the financial year, the book balance was matched with corresponding schedules and other balances in the key Dewan (Lasheen, 1973).

5.1. Al-Mazendarany and Al-Khwarizmi

Al-Mazenderany (1363) was one of the initial Muslim scholars who documented the practice of accounting and bookkeeping in Muslim society. Although Solas and Otar (1994); Zaid (2000a, 2000b, 2001) stated Al-Mazendarany's writings in their study of governmental accounting practice in the Near East through the II Khan Dynasty (1120-1350), the broader implications Al-Mazendarany's contribution to the history of accounting deserve investigation. Al-Mazenderany's book was written in 765 H (1363A.D.) .The book was entitled *"Risalah Falakiyyah Kitabus Siyakat"* and it was the source used by Otar (1994) and recognized by them as "Risale-I Felekiyya"; this is the Turkish translation of the similar title. Al-Mazendarany declared that other books on accounting had been written before his own. He indicated that these books clarified accounting practices in Muslim society generally and in the Middle East in particular. One work, which pre-existed Al-Mazendarany, was Mafatieh Al- Uloom (Keys of Sciences). This appeared in 365 H (976 A.D.) and was approved by Al-Khwarizmi (976) who argued that the types of records were continued in the Dewans and the book used to record accounts. In one chapter committed to "Secretaryship", Al-Khwarizmi defined the technical terms that were common in Muslim society concerning the duties of the secretary and he described, also, the accounting systems which were applied during the 4th century Hijri'iah (10th century A.D.). It has been recommended, also, that Al-Khwarizmi's book be considered as the most significant work of its time (Macve, 1996). However, compared to Al Khwarizmi, Al-Mazendarany described in greater detail the accounting systems used in the Islamic state than. As documented by Al-Khwarizmi and Al-Mazendarany (Al-Khwarizmi, 1984), Table 3 shows the seven specific accounting systems which were developed and practiced in the Islamic state.

Table 3. Seven specific accounting systems which were documented by Al-Mazendarany (976) and Al-Khwarizmi (1363)

Type of Accounting System	Objectives
Stable Accounting (Accounting for Livestock)	This system was under the regulation of a stable manager and required that applicable transactions and events be recorded as they happened. Under this system, transactions comprised, for example, food for camels, horses and mules; caretaker wages; animals purchased, sold, donated and slaughtered or dead.
Construction Accounting	This system was used to account for construction projects undertaken by government. The construction accounting system required the maintenance of a separate journal for every construction site and required the recording of all appropriate transactions and events from the beginning of the project to its completion. The construction accounting system required that the conditions of individual projects be listed at the front of the journal, followed by the terms of construction. Then, there followed the record of transactions and events.
Rice Farm Accounting {Agricultural Accounting)	This appears to have been a non-monetary system since it required the recording of quantities of rice received and disbursed and the specification of the fields which produced the rice. The system, clarified by Al-Mazendarany and Al-Khawarizmi, did not specify a segregation of duties between recording and managing the inventory. It appears that the bookkeeper had sole responsibility for both recording and keeping custody of the inventory. The non-monetary rice farm accounting system was comparable to the grain accounts of Zenon's or Appianus Egyptian estates as stated by Macve (1994, p. 59). This required, also, the recording of receipts and issues of grain in physical terms and without mention of money measurement.
Warehouse Accounting	It appears to have been aimed to account for the state's purchase of supplies. The system was positioned under the direct supervision of a person known to be trustworthy. This system required the detailed recording of the type of goods received and the source of delivery in books organized for the purpose.
Mint Accounting (Currency Accounting)	It was designed and applied in the Islamic state before the 14th century A.D. It required the fast conversion of gold and silver received by the mint authority into bullion or coins. Furthermore, it required the immediate delivery of bullion and coins to the person in charge. This advises that the system did not allow either raw material (gold and silver) or finished products (bullion and coins) to be held at locations for any length of time. The revenue of the mint authority was calculated at either 5% of the cost of gold or silver or in accordance with a determined amount.
Sheep Grazing Accounting	This form of farm accounting was originated and applied by government authorities in the Islamic state and its likely use by private businesspersons to measure the 'profit' or 'losses' for the purpose of zakat. Sheep grazing accounting was diverse to Greek and Roman farm accounting "where the accounts did not significance to show any more than movements of cash and kind, any requirement or fixation on the accounting figures in forming ideas about profitability appears much less likely" (Macve, 1994, p. 78). Under this system, wholly animals given to the grazier or shepherd were recorded in a book designed for the purpose. Also, revenue received either in cash or kind was to be recorded. Revenue in kind received by the grazier included animals and sheep products.
Treasury Accounting	This was used by government and required the regular recording of all treasury receipts and payments. It seems that monetary and non-monetary measurements were used since recording treasury receipts and disbursements were in cash and kind. This system would have encompassed the inventory, such as gold, silver, medicines etc., needed by the government and/or Sultan.

5.2. Roots of Double-Entry

Did the “Italian method” of double-entry, in the form both of surviving business and public records and books, such as Pacioli’s Summa, replicate the effect of earlier, Eastern, accounting developments?. Parker (1989); Scorgie (1994a) debated the prospective role of Jewish merchants, trading in the Middle East, in communicating accounting methods. Using wastes of documents dating from the end of the 11th and the beginning of the 12th centuries, which had been found in a storeroom of a Cairo synagogue, Scorgie (1994b) recognized documents which could be read as initial versions of a journal and a list of debits and credits. Economic and legal historians (for example, Goitein, 1966; Ray, 1997) used many of the “Geniza” documents as the foundation stones of their investigations into medieval Islamic commerce, credit and banking. Scorgie (1994b) argued that the documents were written in Arabic but were produced classically by Jews rather than Muslims. This raises an aspect of some important questions such as – do these documents really count as examples of “Islamic accounting” at all? If the term is taken as referring to accounting accepted solely by Muslims, the Geniza documents would not qualify. However, if the term is taken to refer furthermore to a spatial and temporal location, they fall under the description of “Islamic accounting”. In several events, Jews, Christians and supporters of other religions constituted important minorities and, in some cases, the majority of the population in many Muslim countries until well into the 20th century (Karabell, 2007). Consequently, their accounting practices cannot be ignored.

Although Scorgie (1994b) was careful not to make claims that the Geniza documents, which he copied, were precursors of double-entry, Zaid (2000a) enquired whether or not Islamic accounting methods influenced the “Italian” method of double-entry. Zaid pointed out that matches, between practices and terminology found in Islamic accounting, were as significant as the journal and those seen in late-medieval Italian accounting. However his recommendations that Islamic accounting influenced Italian accounting are hypothetical. Nobes (2001) protected the Italian origin of double-entry by proposing that the parallels, which Zaid classified between definite Islamic practices and Italian counterparts (the Centrality of the journal, the use of “pious inscriptions” at the beginning of account books and statements), were not evidence of inspiration. Following Lieber (1968), the extensive trade contacts between Italy and the Middle East could have led to diffusion of business methods not only from sellers, located in Muslim states to their Italian counterparts, but, also, vice versa.

Replying to Nobes, Zaid (2001) acknowledged the lack of archival evidence demonstrating Muslim influence on Italian bookkeeping practice. However, he proposed that such an influence “cannot be ruled out". Zaid rose the question of what counted really as "double-entry", putting the expression "double-entry system" in quotation marks to indicate the variability of the term. Do we need full duality of entries, use of nominal accounts and periodic balancing, or would something more partial be accepted? Even if a suitable "double-entry system" were found in an Islamic setting which predated such systems in Italy, essentially this is not evidence of Muslim influence on Italy. Also, accounting historians must be careful about claims made by non-specialists. For example, the economic historian, Labib (1969) asserted: *"The double entry method was a significant part of a merchant's skill. It permitted him to watch not only the flow of single values but moreover the circulation of the capital, and it allowed him to register quantitatively its change and transformation and to regulator the success and the development of the business"* (p.92)

In 2004, Zaid returned to a study of Islamic accounting history whereby he debated the role of conquest and colonization as significant factors in the spread of accounting. Also, he recommended that this process could provide a clarification for the Bahi-Khata accounting systems found in India (Lall Nigam, 1986). Zaid (2004) permitted the suggestion of Scorgie (1990) that, before British colonization, accounting in India was expected to reflect the effect of Islamic accounting through the Muslim Mughal invaders. It would be worthwhile studying the issue of how accounting methods were spread by Muslim traders, soldiers and administrators to South and South-East Asia. Subrahmanyam (1992) noted how Iranian wholesalers, operating in south India in the 17th century, took occasionally roles in government because of their commercial knowledge comprising of accounting. Sukoharsono (1998) debated the impact of Islam in Indonesia and measured fiscal administration in the Islamic states that emerged from the 14th century.

5.3. The Islamic Pyramid of Bookkeeping's Knowledge

Most of the contributions to accounting history journals in the Islamic accounting field are grounded on a range of manuscript manuals of accounting, or references to accounting in supplementary general works. For instance, in his introduction to history, known as the Muqaddimah, the historian, Ibn Khaldun (1332–1406), debated the origins of state accounting in the early Islamic state under the second successor to Muhammad, the caliph Umar. Ibn Khaldun noted how Umar established a diwan a term whose meaning developed from referring to a written record of receipts and payments (particularly those due to soldiers) to the office where those accountable for maintaining the records were located. Khaldun (2005) described how, in lands occupied by the Arabs in the years after the Prophet's death, the diwan used initially local languages – Persian in the former territories of the Sassanid Persian empire and Greek in lands previously under the control of the Byzantine empire. Around 700, Arabic was introduced as the language in which records were reserved by the Ummayad caliph Abd al-Malik. Ibn Khaldun (2005) summarized *"The diwan establishes a large part of royal authority. In fact, it is the third of its basic pillars. Royal authority requires soldiers, money, and the means to communicate with those who are absent. The ruler, consequently, needs persons to aid him in the matters concerned with "the sword", "the pen", and finances. Thus, the person who holds the office (of tax collections) has (a good) part of the royal authority for himself"* (p.199)

Consequent Arab and Persian writers provided direction on accounting comprise. Abu Abdallah Muhammad Al-Khwarizmi, whose Mafatih al-ulum *("Keys of the Sciences"),* was written around 977, included a chapter describing *"the techniques and documents of central administration in the eastern Iranian world at that time"* (Bosworth, 1963). This was the core source upon which Hamid et al. (1993) based their debate of how the 10th century Islamic state controlled important amounts of revenue and expenditure. For information on accounting practice, we studied two encyclopaedias, written for administrators of the Mamluk rulers of Egypt and Syria. Albraiki (1994) made use of the broad manual Nihayat al-arab fi funun al-adab *("Objectives in classes of good conduct"),* written by Shihab Al-Din Ahmad Al-Nuwayri. Al-Nuwayri was a financial official and, it was highly probable that later he was writing about the actual accounting systems of the Mamluk rulers. Albraiki recommended that the described system was double-entry in form, although it might not have given such an appearance since the numerous transactions which Albraiki described, comprised of taxpayers discharging their liabilities by making payments ordered by the state to settle the state's obligations to third parties. Hence, there were several transactions with an understandable "dual" nature.

The Egyptian writer, Abu'l-Abbas Ahmad Al-Qalqashandi, a secretary in the chancery of the Mamluk rulers, was the author of the "monumental" (Bosworth, 1964) encyclopaedia of "secretaryship Subh al-a'sha fi sina'at al-insha" ("Dawn for the blind concerning the techniques of correspondence", completed around 1418). In this work, Al-Qalqashandi considered the requirements for alkatib, literally the person of the book. As Bosworth (1964) noted, a slightly earlier Arab writer, Al-Hariri (1054–1122), differentiated between al-katib al-insha (the correspondence secretary, dealing with matters of state) and al-katib al-hisab (the accounting secretary, dealing with issues of finance). Zaid (2000b) summarized Al-Qalqashandi's list of qualifications estimated of those who aspired to take up the role of al-katib; this guaranteed that al-katib would be technically knowledgeable; well-versed in the Islamic Sharia law (particularly the law of commercial transactions); and reputable and truthful. Although Zaid speculated that the Islamic al-katib was comparable to the western accountant by attributing this to trade associates between the European and Muslim worlds, the qualifications which he listed, would appear more applicable to the "senior civil servant" that, probably, Al-Qalqashandi was discussing[25].

[25] Numerous books, written in Persian and setting out governmental accounting systems, are known from the period of the Ilkhans (during which time the Ottomans started to emerge as their vassals). Remler (1985)

The sequences of Muslim writers' Islamic contributions begin in 610 with the foundation of Islam, followed by the contributions of schoolers, such as Al-Khwarizmi, Al-Hariri, Sa'adetname, Al-Nuwayri, Ibn Khaldun, Al-Mazandarani, and, in 1418, Al-Qalqashandi's was the final contribution for this building. Table 3 shows sequentially the integration stages of the Muslim contributions are from the beginning of Islam in 610 until Al-Qalqashandi in 1418. It reflects a natural progression for the body of knowledge for the building of bookkeeping. On the other hand, for the western view, figure (1) shows three stages for the development of bookkeeping which starts with the practices of banks and some simple corporations for this system followed by the second stage in 1494 when Pacioli published his book which contained a comprehensive approach for bookkeeping without any organized or systematic progress contributions in the area. The third stage included extensive works after Pacioli through the issue of more than 10 books about bookkeeping. Some of these works only copied from Pacioli and others added value through organising and developing his work. The evolution of accounting in Islamic jurisprudence had presumed already that most of the writings agreed with the Italian, Luca Pachilio, who was the basis of the double-entry system in 1494. The recording system, introduced by Luka, was preceded by Islamic and Arabian development and contributions which could not be ignored and Table 4 shows these sequences. Based on the investigation of both contributions (Muslim and Western), the next section investigates and explores the European dark ages which was between the 4th to 14th centuries and how the knowledge transferred from the East or Muslim side to West or Christian side. This section is novel by contributing to the literature for bookkeeping system through investigating the channels of influence between the East and West sides.

5.4. Evidence of the Muslims' Contributions for the Bookkeeping System

Hamid et al, 1993; Scorgie, 1990; Solas and Otar, 1994; and Zaid, 2000a and 2000b documented the Muslim contributions to the bookkeeping system. Few western and modern Muslim accountants sought to certificate and explore early Muslim accounting. Lai Nigam (1986) emphasized the role played by Muslim Indian accountants in the progression of accounting prior to Pacioli's Summa of 1494. The author argued that the development of "A system of bookkeeping which predates and was far ahead in complexity of its European counterpart. Scorgie (1990) surveyed the evidence, which supports a contention that the Muslim Indians imitated and adopted the bookkeeping systems conveyed by the Moguls who conquered India in the mid-sixteenth century and concluded that *"the similarity of words in Arabic and core languages of India recommends that the system used by Indian traders and families was consequent from their Arab conquerors".* The Indians were followers rather than inventors and that the transport of double-entry accounting was from the West to the East rather than vice versa as asserted by Lall Nigam (1986). Scorgie (1990) recommended that accounting development *"was resulting from their Arab conquerors".* This view was strengthened by Solas and Otar (1994) whose focus was on *"the governmental accounting practice in the Near East during the II Khan Dynasty period (1120-1350). Their study focused on the Ottoman Empire, a Muslim empire. They concluded that the fundamentals of double-entry. Accounting were practiced in the Near East and were developed independently from the accounting practices used in the West"* (p. 117).

Hamid et al (1993) carried out an additional study which referred to the Muslim scholars' contributions to the development of accounting. They advocated that, "Islam has the potential for influencing the structure, underlying concepts and the mechanisms of accounting in the Islamic world". The authors concluded that *"the prospective influence of Islam on accounting policies and practices could add analyses of national accounting difference with a cultural dimension more profound than that emanating from the impact of original secular law, general custom and commercial habit".* This conclusion was based on earlier developments evidenced by Zaid (2000a, 2000b). Lieber (1968) recommended that Italian traders acquired their knowledge of sophisticated business methods from their Muslim counterparts. Additionally, Heaps (1895) indicated that "the first European who translated algebra from the writings of the Arabians is also thought to have written the first treatise on bookkeeping ... bookkeeping would first be practiced by the first significant merchants, and as these were the Arabians, he accredits to them the invention". Writers as Heaps (1895); Have (1976), expected the Muslim scholars' contributions to be identical to that of Arabs. Certainly, Arabs and non-Arabs contributed to developments in the Muslim world. Commonly speaking, it appears that these authors were referring to Muslims as Arabs, possibly due to the language spoken or that early Muslims originated from Arabia. Examples of Arab Muslim scholars were Al-Qalkashandy, Al- Bucasis, Jabir ibn Hayyan, Ar-Razy and Al-Kindy. Examples of non-Arab Muslim scholars involved Al-Khwarizmi, Abu-Bacer, Abicenne and Al- Mazendarany. Although Roman numbers were in use in the Italian republics during the 15th century, a feature of Pacioli's Summa was the use of Arabic numbers. Furthermore, it was suggested that the introduction

reviewed these and some were revised by scholars working in the West. Among the most significant of these manuals are the Sa'adetname (1307) of Felek Ala-yi Tebrizi (Nabipour, 1973; Erkan et al., 2006), and the Risale-i Felekiyye (1363) of Abdullah bin Muhammad bin Kiya Al-Mazandarani (Hinz, 1952; Hinz, 1950; Erkan et al., 2006).The Risale is a main source of information about the Merdiban method of accounting (Erkan et al., 2006; Güvemli & Güvemli, 2007), and it has formed the basis of many published contributions to the history of Islamic accounting literature. In their innovative contribution, Solas and Otar (1994) summarized Al-Mazandarani's accounting-related material. Although they described the system, set out in the Risale, as "fundamental double-entry" (Solas & Otar, 1994, p.134), it is more like a set of interlocking main and subsidiary records, with detailed entries in the subsidiary books being carried over (maybe in summarized or total form) into the major records. Political and economic historians used Al-Mazandarani's treatise widely broadly as a source of information on government, tax policy, prices and other matters in the Middle East in the 14th century. Consequently, accounting researchers might take carefully the Risale's descriptions of accounting methods and documents as being fairly representative of contemporary practice.

of Arabic numerals in the West was associated with the work of Al-Khwarizmi in the early 9th century (Macve, 1994). Using the Arabic numbers in Pacioli's Summa proved the originality of Islamic Bookkeeping or, at least, Pacioli was affected either by the Muslim or Arab work or culture.

Table 4. Historical Sequences of Muslim Scholars' Contributions to the Bookkeeping System From 610:1307

Year	Name	Book's Name	Contributions
610	Islam	Qur'an and Sunnah	Qur'an set all general rules and basics for Accounting and Bookkeeping and charted all life transactions as instructions of contract (Credit and Debit), finance, business, zakat and ethical rules for guiding business and writing contracts. The following verses from Quran explain some of them "Allah takes careful account of all things", "everyone is accountable to God on the Day of Judgement for their actions during their lives" (Al-nisa 4:86). The Judgement is described in terms of weighing one's noble and evil deeds in a balance (al-qari'ah 101: 6–8), with the noble and evil deeds being documented in books or registers (al-mutaffifin 83: 7–21). Quran declares in Al Baqarah verses (2.282)" Believers! When you contract a debt for a fixed period, put it in writing. Let a scribe write it down between you with fairness; no scribe shall refuse to write as Allah has taught him. Therefore, let him write; and let the debtor dictate, fearing Allah his Lord, and do not decrease anything of it. But if the debtor is of poor understanding, or weak, or is unable himself to dictate, then let his guardian dictate in fairness….."
634:644	Qmar bin Al-Kattab	-------------------	Omar bin Al-Kattab establishment of the Dewans for the recording of Baitul Mai (public treasury) revenues and expenses
919	Qudama ibn Ja'far	Al-kharaj wa-sina'at al-kitaba	As well as the earlier administrative encyclopaedia of Qudama ibn Ja'far Kitab al-kharaj wa-sina'at al-kitaba ("Book on the land tax and methods of record-keeping", written before 948; see also Heck, 2002). These encyclopaedias, written for officials of the Mamluk rulers of Egypt and Syria, were studied for information on accounting practice
976	Al-Khwarizmi	Mafatieh Al-Uloom (Keys of Sciences).	Subsequent Arab and Persian writers, who provided guidance on accounting, included Abu Abdallah Muhammad Al-Khwarizmi, whose Mafatih al-ulum ("Keys of the Sciences"), written around 977, included a chapter describing "the techniques and documents of central administration in the eastern Iranian world at [that] time" (Bosworth, 1963, p.104)
1054–1122	Al-Hariri	----------------	Arab writer, Al-Hariri (1054–1122), distinguished between al-katib al-insha (the correspondence secretary, dealing with matters of state) and al-katib al-hisab (the accounting secretary, dealing with matters of finance). These encyclopaedias, written for officials of the Mamluk rulers of Egypt and Syria, were studied for information on accounting practice
1307	Sa'adetname	------------------	Sa'adetname (1307) of Felek Ala-yi Tebrizi (edited by Nabipour, 1973; see also Erkan et al., 2006, pp.5–6),
Before 1332 1355	Al-Nuwayri	Nihayat al-arab fi funun al-adab	Albraiki (1994) made use of the extensive manual Nihayat al-arab fi funun al-adab ("Objectives in classes of good conduct"), written by Shihab Al-Din Ahmad Al-Nuwayri (died c. 1332).Al-Nuwayri was a financial official and, hence, was highly likely to be writing about the actual accounting systems of the Mamluk rulers
1332–1406	Ibn Khaldun	Muqaddimah	, In his introduction to history, known as the Muqaddimah, the historian, Ibn Khaldun, discusses the origins of state accounting in the early Islamic state under the second successor to Muhammad, the caliph Umar. Ibn Khaldun noted how Umar established a diwan (the Turkish equivalent is divan), a term whose meaning evolved from referring to a written record of receipts and payments (especially those due to soldiers), to the office where those responsible for maintaining the records were located
1363	Al-Mazandarani	Risalah Falakiyyah Kitabus Siyakat	Risale-i Felekiyye (1363) of Abdullah bin Muhammad bin Kiya Al-Mazandarani (edited by Hinz, 1952; see also Hinz, 1950; Erkan et al., 2006, pp.7–8).The Risale is a major source of information about the Merdiban method of accounting (Erkan et al., 2006; Güvemli & Güvemli, 2007), and it formed the basis of several published contributions to the Islamic accounting history literature. In their pioneering contribution, Solas and Otar (1994) summarized Al-Mazandarani's accounting-related material. Although they described the system, set out in the Risale, as "rudimentary double-entry" (Solas & Otar, 1994, p.134), it was more like a set of interlocking primary and subsidiary records, with detailed entries in the subsidiary books being carried over (perhaps in summarized or total form) into the primary records. Political and economic historians used Al-Mazandarani's treatise widely as a source of information on government, tax policy, prices and other matters in the Middle East in the 14th century. Consequently, accounting researchers might take safely the Risale's descriptions of accounting methods and documents as fairly representative of contemporary practice.
1418	Al-Qalqashandi	Subh al-a'sha fi sina'at al-insha	The Egyptian writer Abu'l-Abbas Ahmad Al-Qalqashandi, a secretary in the chancery of the Mamluk rulers, was the author of the "monumental" (Bosworth, 1964, p.292) encyclopaedia of secretaryship Subh al-a'sha fi sina'at al-insha ("Dawn for the blind concerning the techniques of correspondence", completed around 1418). In this work, Al-Qalqashandi considers the requirements for alkatib, literally the person of the book (kitab).

Table 5. Summarizes Muslim and Western Contributions

The Stage	***Period***	***Added Value***	***Description***
Islamic Stages			
The First Stage	610:644	Basic and General Rules	Foundation of Basic Islamic Accounting and Bookkeeping Rules by Quran and Sunna (General/Comprehensive Perspective)
The Second Stage	948:1307	Exploring new transactions	Discovering/Exploring the Differences in practices with new transactions
The Third Stage	1355:1418	Completion of the building of Bookkeeping Knowledge	Complete understanding and organised the details book for bookkeeping process as we know them
Western Stages			
The First Stage	1211:1460	Discovering and professional Practices	Applications and practice of some of the basics for double entry bookkeeping through banks, international business and small business
The Second Stage	1494	Setting writing foundation by Luca book	Through Pacioili's book, the bookkeeping become authorised to be adopted by corporations
The Third Stage	1518:1639	Completion of Pacioli's work	Complete the bookkeeping building with more details and types for all books

Table 6. The historical progress for Islamic accounting and Bookkeeping for Muslims Scholars

Stage of Census and counting		The emergence of the Islamic call and invitation to the Messenger of Allah to count and census
	622 A/1 H	Aware of the role of inheritance and astronomy and geography to learn inheritance and prayer and destination Kaaba and months to find out the month of fasting, Hajj and squint to calculate zakat
Blogging stage (Recording)	644 A/23 H	Succession Omar ibn Al-Khattab may Allah be pleased with him
Localization stage (Translation for Arabic)		Umayyad Caliphate at the hands of the writer Saleh bin Abdul Rahman
	750 A/132 M 767 A/150 M 775 A/158 M 785 A/168 M 798 A/182 M 819 A/203 M 820 A/204 M 839 A/224 M 920 A/307 M 933 A/321 M 939 A/327 M 940 A/328 M	Khwarizmi development of the first book in the calculation of Gabr Abu Hanifa Anas bin Malik Ismail bin Sabih writer Bureau abscess time Rasheed Abu Yousef Qurashi Shafie Abu Obeid bin Peace Ali Issa Abu Jaafar al-Tahawi Abu Jafar Damascene Ibn Qudamah
Acceptance Europe stage	1050 A/441 M	Europe to accept Arabic numerals after 3 centuries by Maklish
	1024 A/415 M 1058 A/450 M 1111 A/504 M 1112 A/505 M 1262 A/660 M 1328 A/728 M	Judge Abdul-Jabbar Mawardi Hariri Ghazali Ezz Bin Abdulsalam Ibn Taymiyyah
Rooting stage	1332 A/733 M	Noueiri development of the first integrated accounting scientific reference in the world
	1377 A/779 M 1388 A/790 M 1393 A/795 M 1418 A/821 M	Ibn Khaldun Shatibi Ibn Rajab al-Hanbali Qalqashandi
Dating the world stage, including accounting	1494 A/889 M	Luka Pacilio and Book of Double-Entry
The dates in the schedule is the death date for those scientists		

Source: Samer, 2012

6. TRANSFER STAGES OF KNOWLEDGE BETWEEN EAST AND WEST "KNOWLEDGE BRIDGE"

The history of Islamic economics, finance and accounting goes back to the Qur'an and Sunna. The Qur'an, as the Word of God revealed to the Prophet Muhammad (PBUH) and Sunna as his practical demonstration and explanations, comprises a number of economic teachings and philosophies applicable to several conditions. Thought is a product of human mind, whilst the Quran teachings and prophetic explanations are divine in character. Consequently, it is the human interpretations and implications and their applications in many changing times, spaces and conditions which form the body of business 'thought' of the people of Islam. Muslim scholars acknowledged and accepted the economic and accounting or finance teachings of the Qur'an and Sunna as the source and starting point. Then, they used their own reasons and practiced the principles derived from the basic sources of Islam to explain the emerging problems in the changing historical and economic conditions. They never hesitated to benefit from the experience of other nations. More or less this process is sustained throughout Islamic history. We can separate this process into the following three broad classifications. In the following sections, the paper focuses on second and third phase since the first one was explored in the previous section

Table 7. Main phases for Islamic history' stages to accounting building

Phase	*Kind of stage*	*Objectives*	*Period*
First stage	Construction period	This covers the period just after cessation of the revelation to the end of the companions' 2 eras	11-100 A.H. /632-718 A.D
Second stage	Translation period	When foreign ideas were translated into Arabic and Muslim scholars had a chance to benefits from the intellectual and applied works of other nations	2^{nd}-5^{th}/8^{th} – 11^{th} century
Third stage	Re-translation and communications period	When Greco-Arabic Islamic ideas reached Europe through translation and other contacts	6^{th} – 9^{th} /12^{th} – 15^{th} century

6.1. The Translation Period

By the translation period, we mean the age when foreign classical works and master pieces, particularly those embodying Greek ideas, were translated into Arabic and Muslim scholars came to study and benefit from them. The translation activity started in the first century Hijrah itself whilst it took two more centuries to make its effect felt amongst Muslim scholars. The first incidence of translation was reported during the Caliphate of `Umar. Khalid b. al-Walid advised the use of the diwan (office or register). He said to `Umar that he had seen the rulers of Syria was keeping a diwan. Umar accepted the idea from Khalid. It was said, also that al-Hurmuzan was the person who advised `Umar to introduce the diwan. Since the term 'diwan' is a Persian word, the last story seems to be more acceptable. However, the diwans of land tax collections remained in Iraq and Syria in Persian and Byzantine Greek correspondingly until the caliphate of Abd al-Malik b. Marwan who ordered their translation into Arabic. Later, Khalid b. Yazid made a systematic start to translation. He sent for scholars from India, Persia, Rome and Greece and organized the translation of their classical works.

Following the death of the Prophet Muhammad in 632, Islam feasted rapidly, slicing through the Middle East into Africa, and as far west as France. This rapid expansion led to the growth of three fundamental dynastic caliphates: the Abbasids (750–1258) arose in Persian Baghdad; in the Spanish West, mainly at Cordova, the Umayyads (756–1031); and the Fatimids in Egyptian Cairo (909–1171). The Abbasid Dynasty heralded Islam's Golden Age and it was during this period that the translation of writings, from other civilizations, past and modern, blossomed. The Abbasid Caliph Al-Ma'mun (786–833) was ascribed frequently with institutionalizing the translation of the early sciences, and setting these out systematically, with his Bayt al-Hikmah or The House of Wisdom situated in Baghdad. This institution, which became the intellectual hub of Islamic scholarship, had, as its principal activity, the translation of numerous critical works from other civilizations into Arabic and, therefore, preserved countless valuable manuscripts. By the time this had started in the early 9^{th} century, Islam had spread already to such an extent that contact with the West was widespread, and, hence, the Bayt al-Hikmah had the advantage of employing a very cosmopolitan blend of scholars of many different creeds and languages.

6.2. The Re-translation and Transmission Period

The third phase was the re-translation and transmission period when Greco-Arab Islamic ideas reached Europe by translation and other contacts (6th–9th/12th–15th century). The third phase of Islamic economic thought marked the translation of Islamic sciences generally and Greco-Arab sciences' (Muslim scholars' additions and commentaries over Greek philosophy) in particular from Arabic to Latin and other European languages. We have reports concerning translation activities from Arabic to Greek by the end of 4th century Hijrah in the Byzantine capital Constantinople (Sezgin, 1984). With the passage of time, the volume of re-translation work increased significantly. Hence, the period before Western renaissance is termed as the 'translation age' (Myers, 1964). Translation of the works of hukama (Muslim philosophers), physicians, finance, scientists, and social thinkers dominated the scene. The works of Ibn Sina, al-Farabi, Ibn Bajjah, Ibn Rushd, etc. were translated into the Latin, French, Spanish, Hebrew and German languages. Grice-Hutchinson (1978) wrote: *"About the beginning of the 12^{th} country the Christian West began to awaken to the superiority of Islamic culture of Islamic technology, since the aspiration of Western Christian was not so much to enrich their intellectual culture as to develop their performance in such practical activities as medicine, mathematics, arithmetic, accounting, astronomy, astrology, botany, torture and magic, in all of which the Arabs were known to be exceptionally talented"* (p.71). Baeck (1994) classified three periods of translation from Arabic. Firstly, from the early 12^{th} century to the beginning of the 13^{th} century 'in which most vital texts written by Arab and Greek scholars were translated into Castilian Catalan and Langue d'Oc'. In the second period 'from these vernacular languages, they were rendered into Latin'. The third period, which started from the middle of 13^{th} century, 'returned to the double pass: Arabic – Langue d'Oc – Latin'. *"In this process of translation the most significant Arabic texts on astronomy, mathematics, accounting, medicine, kalam and philosophy were transferred to the West"* (Baeck, 1994).

6.3. Channels of Influence

The Muslim scholars' effect on Medieval Europe with respect to philosophy, science, mathematics, Finance, geography, history, art and culture is well-documented and recognized in the circle of concerned subjects. However, as yet, their influence on economic and Finance thinking and institutions has to be explored completely and recognized. The very fact that Medieval Europe borrowed from Muslim scholars in several such diverse fields is enough to believe that they could not have avoided the economic and financial thoughts of Muslim scholars since there was no reason to ignore their knowledgeable contribution in this dynamic and practical aspect of life. The Muslim scholars' influence reached Medieval Europe by translation activities; education and oral transmission; explorers' travel accounts; trade crusades; and diplomatic missions and pilgrimages. The following table is a brief description of these channels.

Table 8. The Channels of Influence from East to West

Transferred method	*Discretion*
Translation	Translation of Muslim scholars' contributions to European languages was the most imperative channel through which their ideas were communicated to the West. It was a continuous process spread over several centuries (starting from 11th century A.D. up to 15th century). Baeck (1994, p. 119) recognized the five essential centres of translation of religious, philosophical and scientific texts. The first organized translation centre was Trazona in Aragon; in Castile, the translation centre of Toledo was created by Archbishop Raimundo; the Court of Emperor Fredrick II in Sicily played a prominent role; Barcelona was the centre of high culture in Catalonia's maritime economy; and, finally, cultural centres, like Perpignan, Narbonne, Nimes and Toulouse, were transmission belts of text translated in old French. Several economists recognized the significance of Arabic translations to European languages and their role in the progression of scholastic thought (Schumpeter, 1997; Gordon, 1975). However, the impression was given that their role was only the transmitter of Greek ideas. The fact is that with each translation they contributed, also, their commentary, exposition, criticism and additions and the West benefited from all of these. Karl Pribram is possibly amongst the few Western economists who accepted it openly. He declared: "All applicable writings of the Greek philosopher Aristotle (384–322 B.C.) were gradually made obtainable in Latin translation along with several treatises in which Arabian philosophers had interpreted Aristotle's work in light of their own reasoning. Of particular significance for subsequent development of Western thought was a translation into Latin of the commentaries of Aristotle's Ethics by the Cordoban philosopher Ibn-Rushd, called Averroes (1126-1198)" (Pribram, 1983). He mentioned two streams that affected the medieval society "far more vital stream started within the body of Scholastic theologians who resulting their intellectual armoury from the works of Arabian philosophers" (Pribram, 1983).
Oral transmission	Another main channel of transmission of Muslim thought had been through the European students who attended the learning centres in Spain, Egypt and other parts of the Muslim world. On return, they were involved in teaching, preaching or developing those disciplines in their own societies. Clearly, the oral transmissions could not be recorded. However, in the history, we found several important names, like Constantine, the African and Adelard of Bath (England) who travelled to Muslim countries, learned Arabic, studied there and transported back the newly acquired knowledge to Europe. Even Pope Silvester II was educated amongst the Arabs of Toledo (Lopez-Baralt, 1994).
Trade and Commerce	As illustrated earlier, the change in Medieval Christianity's outlook towards trade was a manifestation of Muslim scholars' impact. Active participation of the East and West in trading activities was one of the channels through which that inspiration took root. According to Cook (1974, p. 238), "The beginnings of commend as an accepted legal category in the Italian commercial cities may have ascended from an acquaintance with the commercial practice of the Arabs". Sufficient evidences are available that trade was accompanied from the Arab world through Russia to Poland, the shores of Baltic seas to Scandinavia, and to north central Europe. 'Series of hoards, comprising several thousands of Muslim silver dirhams that have been found in the countries around the Baltic' (Lewis, 1970) are proof of massive trading network with Muslim countries. According to Bernard Lewis 'Italian and Spanish archives enclose various documents relating commerce, counting a number in Arabic" (ibid., 1970, p. 81). Geniza papers of Egyptian Jewish provenance replicated the commercial and social relationships which were by no means limited to Egypt and which stretched to the Mediterranean lands, eastwards to India (ibid, p.84). In words of Heaton, "Muhammad anism regarded trade as worthy occupation, ties of rule and religion facilitated long-distance trade and travel and since the Asiatic and the Moslem world controlled several industrial or agricultural skills and products which were superior to those of the European end, the West promoted by the lessons it learned from its new masters" (Heaton, 1948, p. 76). In fact, 'economic and business motive' led to a large number of European merchants having an increased knowledge of the Muslim world (Rodinson, 1974).
Diplomatic Channel	Likewise, the diplomatic relationships provided an opportunity to learn from the advanced nation. 'Charlemagne was in diplomatic relations with the caliph of Baghdad, Harun al-Rashid as well as with the latter's enemy, the Umayyad emir of Spain; and by this channel particular knowledge of the vastness and power of the Islamic world might have reached Europe' (Watt, 1972, p.13). Most of the European kings had respectable relationships with the Mamluk sultans of Egypt. In a letter to Sultan Nasir bin Qalawun in 1327, Pope John XXII referred to asking him to treat the Christians of the East with benevolence and care. Nasir approved his request (Muir, 1896). In the same year, Charles IV (1322-28), the King of France, sent a comparable letter to Sultan Nasir around the welfare of the Christians residing in his sultanate (Lane-Poole, 1925, p. 310). We can argue that there were plentiful channels of communication available between East and West and there were far superior reasons for Medieval Europe to be influenced by the Muslim scholars' economic, finance and accounting ideas.

6.4. No Acknowledgement and Changing Scenario

Despite undoubted circumstantial evidences, the least recognized fact is a scholastic philosopher's borrowing from Muslim scholars in economic and accounting, especially the bookkeeping field of. One of the core reasons may be the fact that, in their discourses on economic issues, scholastic scholars never mentioned Islamic sources. Therefore, the question arises: why did scholastic scholars not acknowledge their borrowing from Muslims? A few modern writers have tried to answer this (Sezgin 1984, Mirakhor 1987, Ghazanfar 1995). The first and primary reason is that the scholars held a denigrating view of Islam and Muslims (Sezgin, 1984). Without naming him, he quoted a scholar who recommended that, in denigrating Islam and Muslims, Medieval Europe found a way to formulate a new image of it. Ibid indicates that 'Because Europe was responding against Islam, it belittled the influence of the Saracens and exaggerated its dependence on its Greek and Roman heritage'. In the 14th century, a great number of European scholars studied translation of Arabic books and prepared their own volumes or summaries in which they released not only the names of Muslim authors but attributed the whole thing, also, to those Greek scholars who were referred to infrequently in those works (Sezgin, 1984). Ball (1960) indicated *"we can barely suppose that the Italian traders were ignorant of the methods of keeping accounts used by their best* *customers"* and important amongst these were Muslim businesspersons.

Figure 2 shows how Muslims interacted with the Greeks and how, at the same time, the western world benefitted from interacting with Muslims without showing their appreciation. The Figure shows that, what Pacioli published represented only the outcomes of all these contributions with, especially, core contributions from Muslim scholars who interacted critically with the Greeks in developing and adding value to the building of bookkeeping knowledge. The Muslim stage represents a cornerstone and knowledge bridge for the western world. Raymundus Lullus (1315) spent his full life in opposition of everything that was Arabic. He wrote several books on Chemistry. Later, it was discovered that the greatest of them were originally Arabic works. Furthermore, numerous such writers gave the slogan: *'Emancipate knowledge from the clutches of Arabs'* (Sezgin, 1984). No doubt few scholars tried to be fair and to acknowledge Muslim scholars' contributions to various sciences. However discrediting forces dominated the scene (Sezgin, 1984). Elimination of Muslim scholars' names and the discarding of their citations were encouraged, also, by the intention of its adoption in one's own name. There are numerous examples of medieval scholars who removed the name of the original Muslim author and presented the book in their own name (Sezgin, 1984). Langholm argued that after war, famine and the 14th century Black Death which left a gap in main sources, 'threads were picked up again in the 15th century and specific of the late scholastics have become famous as economists and financial, but contemporary research has shown that they were often photocopying verbatim from earlier forgotten pre-plague sources' (Langholm, 1987). In the age of slow communication and the absence of print media, occurrences of such incidences were imaginable. However, it was not confined only to that period only.

According to Mirakhor, an additional reason for not finding acknowledgement is that *'borrowing without acknowledgement appears to have been an accepted and a common practice among the scholastics'* (Mirakhor, 1987) ([26]). He cited several examples of such copying without acknowledgement within the scholastics themselves. It was very common whilst plagiarizing from Muslim scholars. In the 13th century, Bar Heraeus, a Minister of the Syriac Jacobite Church copied several chapters of al-Ghazali's Ihya Ulum al-Din were copied by (Mirakhor, 1987). In her work al-Ghazali: *The Mystic, Margaret Smith exposed undoubted evidences of St. Thomas' copying from al-Ghazali's work Ihya Ulum al-Din. She matched the works of the two scholars and found that, in several cases, "St. Thomas uses the very words of al-Ghazali."* There were similarities between themes and arguments of the two works (Smith, 1944). It may be remembered that al-Ghazali's Ihya is the core source of his ideas.

[26] It was found, also, amongst Muslim scholars. For example: Both Abu Yala al-Farra and al- Mawardi had a work entitled al-Ahkam al-Sultaniyyah, the contents were almost the same. They were contemporaries. It is not known who wrote first and who borrowed it. Another example: Ibn al-Qayyim (1953) incorporated the whole treatise of his teacher Ibn Taymiyyah (1976) on al-hisbah in his book al-Turuq al-Hukmiyyah. No doubt, on certain occasions he referred to his shaykh Ibn Taymiyyah.

6.5. The Changing Scenario

We noted previously Schumpeter's statement that Medieval Europe had to begin in social sciences 'from little or nothing' (Islahi, 2001). Watt restated: *"When about 1100 Europeans became extremely interested in the science, accounting and philosophy of their Saracen enemies, these disciplines were at their zenith; and the Europeans had to acquire all they could from the Arabs, before they themselves could make supplementary advances"* (Watt, 1972). Admittedly, another scholar admits argued that *"What we call science arose in Europe as a result of a new spirit of inquiry, of novel methods of investigation, of the methods of experiment, observation, and measurement, of the development of mathematics, in a form unidentified to the Greeks".* The spirit and those methods were presented into the European world by the Arabs" (Briffant, 1929) Seen in this way, pre-scholastic Muslim scholars' contributions related very powerfully to mainstream Western accounting. Figure 2 shows that the cycle for transferring knowledge has changed. The Muslim side is learning now and copying from the western world with acknowledgements but with a little adding value. Figure 2 asks a vital question, namely what is the expected contributions of Muslim scholars in the accounting body knowledge and when? How can Muslim scholars come back again to be exporters of knowledge to the western side?

7. CONCLUSION AND RECOMMENDATIONS

The paper explored the history of bookkeeping by investigating the historical subsequent development of the bookkeeping framework which began in 610 (the date of Islam foundation) until 1418 with the last Muslim scholar's contributions (El-Qalakshandy). The paper argued that the bookkeeping history from both sides which were the western and Islamic sides. The paper investigated the transfer of knowledge and focused on bookkeeping from the Muslim world to Christian and especially from the 8th to 15th centuries which were called the Dark Ages. Without acknowledgments of the Muslim writers, the Muslim works were translated from Arabic to Latin and to other languages. The paper concluded that Pacioli's book in 1494 was only the final outcomes of the Muslim scholars' contributions through the integration cycle which took around 800 years (610:1418). It could be concluded that the bookkeeping pyramid was integration stages or sequences of many different writers who added to this building with priorities given to the Muslim scholars' contributions as a cornerstone of this building. The paper showed the different ways to channels influence between East and West and, for instance, this contained for instance translation; oral transmission; and trade and commerce. The paper concluded that these channels were the bridge for transferring the knowledge of the bookkeeping system from East to West. The study outlined the changing knowledge transfer scenario and asked what the expected Muslim scholars' contributions were and how could the Muslim scholars add value to the building of the accounting system?

Figure 1. Bookkeeping pyramid knowledge

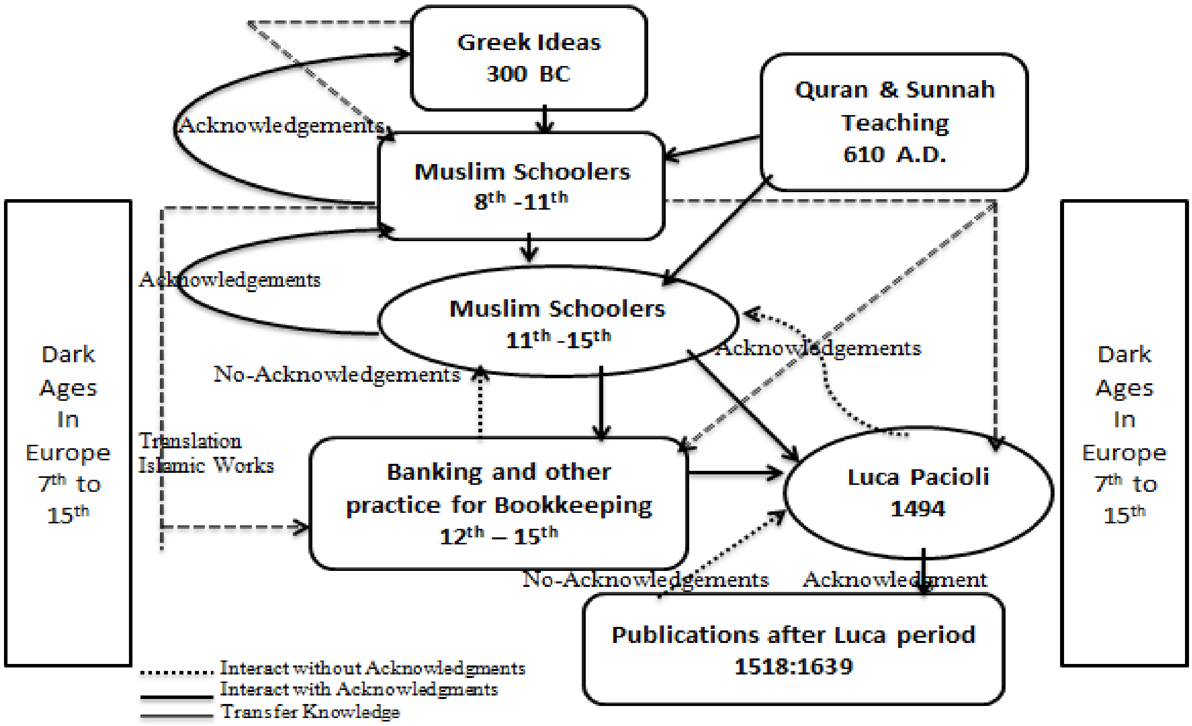
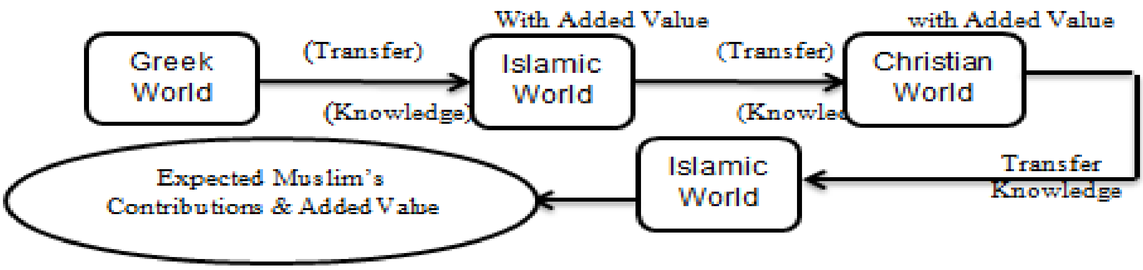


Figure 2. The Changing Scenario



The study encouraged the Muslim and Non-Muslim researchers to investigate the other knowledge, works and sciences which were copying or transferring from the East or Muslim world to the West or Christian world in order to correct the history and record acknowledgements for authorized writers. Furthermore, the paper suggested that there ought to be additional investigations about the Muslim scholars' contributions to accounting knowledge in the modern period of the 19th and 20th centuries. The paper recommended that there ought to be exploration of what was needed in the Muslim scholars' world to be pioneers and to add value again to the universal knowledge building as had been made over 1000 years. The significance of theory and difficult method for historical accounting research should be argued. Furthermore, accounting history was not only the history of accounting techniques and philosophies, alongside the history of accountants but, also, ought to comprise of a study of the influence of accounting on individuals, organisations and society. In addition, there ought to be an explanatory understanding of the meanings attributed to accounting at different times. We require researchers to examine the "dark" as well as the "bright" sides of accounting; to challenge conventional narratives of accounting development; and to accept that accounting is more than simple counting and calculation.

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DISCUSS ON FISCAL DISCIPLINE AND CORPORATE GOVERNANCE IN THE PUBLIC SECTOR IN NIGERIA

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Abstract

Generally, any discussion on corporate governance partly revolves around transparency and accountability and fiscal discipline. The emphasis on transparency and accountability provides the baseline for defining fiscal responsibility and the enforcement of fiscal discipline. Fiscal responsibility and fiscal discipline are political and legal constructs that promote democracy, economic growth, sustainable development and nation building in transitional economies. The near absence of these values especially during the military interregnum in Nigeria created development inertia in the process of governance and social illusions in the relationship between government and the governed. With the rebirth of democratic values in 1999, it became obvious that the context of resource governance must be changed to make way for the attainment of sustainable development through democratic ambitions. Therewith, the federal government carried out some measures of fiscal reforms with a view to stimulating the mechanics of public sector governance and institutional performance. The paper examined the extent to which these reform measures have improved the culture of resources governance within the context of the systemic challenges that confronts Nigeria. From its analysis, the paper concluded that the inherent contradiction in the implementation of fiscal responsibility reforms in Nigeria arises from the inability of Nigerians to generate good ethical relationship with the reform objectives given the antecedent of gross corruption. The paper advocated the sustained re-orientation of Nigerians as a basis for creating the ethical foundation for the promotion and enforcement of fiscal discipline in the public sector.

Keywords: Fiscal Discipline, Governance, Budget, Public Sector

1. INTRODUCTION

The problem associated with public sector governance can be understood within the historical realities that surrounded the Nigerian society. The nation building process throws up many challenges to Nigerians and government. The first challenge was how to evolve a system of governance acceptable to all the ethnic nationalities without leaving any ethnic group disparaged. Accommodation was sought for in federalism and the creation of states and local government councils wherein the sharing of national wealth is guided by the political rationality of intergovernmental fiscal relations. The ultimate goal is to promote even development and good governance. The second challenge arises from the efficient use of allocated resources by leaders at the three tiers of government to improve the well-being of Nigerians. The extent to which the second challenge has been address by the Nigerian government is a function of leadership commitment to national integration and nation building. The third challenge arises from the nature of military governance and its arbitrariness in governance relations with little regards to transparency and accountability. Many of the problems facing the Nigerian nation today were made worse during periods of military misrule. Except for the Buhari/Idiagbon, Murtala/Obasanjo and the Gowon military regimes, military administrations contributed immensely to increasing the rate of poverty, unemployment, inequality, bureaucratic ineptitude, poor budget implementation, corruption and fiscal indiscipline. These problems made structural adjustment reforms inevitable.

In order to strengthen the mechanics of governance, the Nigerian government embarked on a number of fiscal reforms which ranges from the Monetisation policy in 2000, the Fiscal Responsibility Act 2007, the public procurement reforms, Integrated Payroll and Personnel System (IPPIS), the Treasury Single Account (TSA) and the Nigerian Extractive Industries Transparency Initiatives (NEITI) among others. These reform measures were undertaken by the federal government to strengthen the integrity of public sector governance and the efficient delivery of social services. Building blocks were made to guarantee the success of the reforms with the establishment of the Conduct of Conduct Bureau, Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Other Related Offences Commission as watchdogs of the code of public sector governance. The paper examines these issues in perspective but within the context of political, legal, economic, and socio-cultural rationality of governance in Nigeria.

2. CONTEXTUAL BACKGROUND

Generally, the rebirth in knowledge, learning and civilisation (renaissance) which emerged as part of the global process of modernisation, ethical reformation and development changed the context of governance all over the world. The renaissance introduced new political, economic, legal, social and cultural values that foster global interdependence, democracy and good governance. To this end, the problem associated with democracy, institution building, nation building and fiscal discipline are better explained within the context of the civilisation that created and sustain it. The civilisation that gave birth to public sector governance in Nigeria is rooted in imperialism and British colonialism. Colonialism created a tribal diversity culture that defines who get what, when and how in the Nigerian polity and foster an ethnic and religious solidarity that has made the fight against corruption difficult between ethnic/religious associates.

The Nigerian federation emerged from the euphoria of attaining political independence on October 1, 1960 to face multiplicity of political, economic and social crisis in governance relation. Part of the crisis culminated into a civil war between 1967 and 1970 and crippled the economy and structurally imposed limitations on political and social relations among the constituent ethnic nationalities. By the early 1970s, Nigeria witnessed an economic windfall due to the rise in the price of crude oil (oil boom) in the international market. The dialectics associated with the economic windfall was the payment of enhanced salary to workers under the Udorji Salary award and the mass retrenchment of civil servants. The attendant trauma on the untimely retrenchment (early retirement) of civil servants snowballs into fiscal indiscipline and inefficiency in public sector governance in Nigeria. It raised the apprehension against retirement into poverty as public servants began to device ingenious means to make ends meet in a manner that became a travesty of good governance. The tolerance of this unethical practice by political leaders provides favourable platform for corruption and high cost of governance above the rational economic principle favourable to sustainable development. The over-bloated size of the public service, the high emoluments of political officeholders and their seeming indifference to corruption produced negative spirals in the development continuum of Nigeria. The above harsh economic realities made debt a viable alternative strategy for economic recovery but this too was incurred above the level the Nigerian economy can sustain. The Structural Adjustment Programme by the military administration of President Ibrahim Badamasi Babangida has the fiscal responsibility measures indexed in it as subsidy removal, currency devaluation, deregulation, downsizing/rightsizing and privatisation and commercialisation of public enterprises. The economic hardship it occasioned is a factor to be considered in the discussion on fiscal indiscipline in Nigeria.

3. CONCEPTUAL REVIEW

The dynamics of public sector governance can better be understood within the context of fiscal discipline and corporate governance as discussed in the foregoing sections of this paper.

3.1. Fiscal Discipline

The concept of fiscal discipline is used by scholars and professional bodies to convey a definitive culture of efficient resource management and economic governance. It is an ethical requirement in public and private administration upon which democracy and sustainable development can be promoted. It bestows a multi-cultural and multi-sector ethics on public officials, the electorates, tax payers and corporate individuals. Musgrave (1959), Musgrave and Musgrave (1989, p.101) relates fiscal discipline to the efficient financing of current operations (*sic of individuals, government and corporate organisations).* It addresses the attempts by government and organisations to match its expenditures with available resources and therein promote efficiency in resource management and public administration. Mikesell's (1999, 44-45) thesis on fiscal discipline laid emphasis on incurring public expenditure within the limits of available resources and the efficient implementation of the budgets within the limit of the statutory power allocated to MDAs. All government Ministries, Departments and Agencies (MDAs) are statutorily required to implement the budget within the limits specified by parliament. Parliamentary approval of public expenditure creates economic relationship between fiscal discipline and parliamentary discipline. Parliamentary discipline paved way for the timely passage of the appropriation bill (Axelrod 1988, p.146). Transparency in the budget approval process in the Parliament is a prerequisite to efficient implementation of the budget and good governance. In the same manner, legislative indiscipline distorts the budget process especially if members of the members of parliament ask for gratification from heads of MDAs to approve the budgetary allocation to MDAs. It paved ways for indiscipline in the budget implementation process, illegal virement and fictitious contracting to accomplish budget task without tangible and or intangible result. The relationship between legislative indiscipline and executive indifference is a catalyst to corruption in the public sector. Fiscal discipline is a multitask activity that can only be sustained by multi-stakeholders role commitment and as Schick (2000) argued a multi-year budgeting framework. It is difficult to maintain annual structural balance between current revenue and current expenditures without resorting to multi-year financial planning (Hou 2002).

Multi-year budgeting is popular among developing and transitional economies (Boex, Martinet-Vazquez and McNab 2000) as contained in the Medium Term Expenditure Framework (MTEF) designed to enable governments of transitional economies plan their income and expenditure proposal three years ahead and evaluate the prospective fiscal implications of such decisions (Brigham 1982, p.3). This underscored the need to strengthen the fiscal health and stability of the economy taking into consideration the contingent liabilities of government. Fiscal discipline requires strict budget monitoring, budget transparency and accountability and the monitoring of all financial transactions in the country. Fiscal transparency and accountability demands openness in financial transactions and the acknowledgement of financial payments and receipts by business agents. This stabilising function is performed by the national governments (Musgrave 1959; Oats 1972) and financial institutions and as Gramlich (1987) and Hou (2001)) argued by sub-national governments using counter-cyclical fiscal measures (general fund surpluses and budget stabilization funds). Fiscal discipline is also strengthened by a sound debt management policy. Debt is a macro-economic instrument that provide alternative source of finance for infrastructural development. Fiscal discipline restricts the amount, type and maturity of debts in a long-short term basis after careful debt sustainability and debt profitability analysis to avoid imposing unbearable debt burden on future generation.

The fundamentals of fiscal discipline are:

i. A good budget system;
ii. Revenue and expenditure estimation on a medium- to- long-term basis;
iii. Budget compilation and adoption based on public needs;
iv. The evaluation of the fiscal impacts of budget decisions;
v. The structural balance between current revenues and current expenditures;
vi. The early passage of the budget before or at the beginning of a new fiscal year;
vii. Budget execution or implementation in a prudent manner within built-in counter-cyclical measures; and
viii. Debt profiling around the debt sustainability and profitability levels.

These variables provide the basis for understanding public sector governance, the budget system and fiscal discipline in Nigeria. The subversion of the budget process by the National Assembly and the executive (implementing agencies) could pave way for fiscal indiscipline. Fiscal discipline can also be measured by the level of transparency and accountability in the public procurement circle. It can be undermined where contracts are split into small contract heads in violation of the due process rule.

3.2. Issues with Corporate Governance

Corporate governance is a subject matter that has attracted many intellectual debates from scholars like Hutton (1995), Kay and Silberston (1995), Arrow (1972), Keasey, Wright and Thompson (2007) and Otinche (2013; 2009) among others. It has also received institutional recognition from corporate bodies like the World Bank, the International Monetary Funds, the Organisation for Economic Cooperation and Development, the Council of Europe, Transparency International, the European Union and the African Union among others. The debate on corporate governance has driven the policy making and implementation processes in Nigeria, Africa and the world at large to a level that have made policy reforms in the public sector inevitable. The varied opinions as to what it stand for and what it should be drew the concern of Otinche (2013, p. 70-73) to think that corporate governance emerged from the ideology of governance that conveys the understanding about how policies are initiated, formulated, implemented and adjudicated for the well-being of members of the civil society. He examined this within the rationality of corporate trust and corporate ability and the best practice mechanism it promotes on information disclosure, decision making, efficient financial resources management, board membership and remuneration, employee compensation and mergers, acquisition and take-over. These values enhance the economic potentials of the rule of law. He argued that the prevalence of defective values system like lack of transparency and accountability, poor monitoring and regulatory framework in the Nigerian public sector have affected the growth of democratic institutions and the process of development and nation building. Otinche examine these issues in context with the pension industry in Nigeria and revealed how defective institutional values have led to the poor management of pension fund and the inefficiency in social welfare administration generally in Nigeria. Olowu (1999, p.140) argued that accountability requires clear definition of responsibility, reporting mechanism and a good system of review, rewards and sanction. In another dimension, Fredrick stressed the need to strengthen accountability through the reinforcement of the internal control and self-restraint on public officials through education and training against the external political control mechanism recommended by Herman Finer as a basis for promoting political responsibility (Cited in Olowu, 1999, p. 140). The social (internal) and political (external) control emphasise education and training and the codification of some ethical guidelines for officials to enable them override political decisions that are contrary to public interest and ensure they are accountable to the public or their political representatives (Jabbra and Dwivedi, 1988). Accountability laid the basic foundation for fiscal discipline and structure the public sector into an agent of change and a vehicle for promoting sustainable development. It creates the requirement that those who holds office in the public sector should account for the use of the resources allocated to the office they occupy. This is motivated by the wide spread assumption that public sector organisations are wasteful in the use of public resources.

To strengthened the systems of public administration for good governance, international organisations like the Organisation for Economic Cooperation and Development (OECD), the World Bank, the International Monetary Fund, Global Corporate Governance Forum, Trade Unions, Civil Society Organisations, International Standard Setting Bodies, Transparency International, the International Financial Reporting Standard Board and the European Council among others have set efficiency benchmark for public and private sector organisations. The standard set by these organisations is geared towards addressing systemic dislocations in the management of fiscal and corporate resources and build public trust among stakeholders so that desirable outcome could be achieved for stakeholders (Otinche, 2013, p.71). The central theme that runs through the reform objectives of the Economic Commission for Africa (ECA, 2005, p.3), the African Peer Review Mechanism (APRM, 2008, p.32) and the New Partnership for African Development (NEPAD, 2006, p.28-29) as summed up by Otinche (2013, p.71) is economic governance, political governance, corporate governance and socio-economic development. These institutions brought to the fore the multifaceted nature of the paradigmatic shift in the philosophy of public administration, organisational development and financial management. The adoption of corporate governance values which is a private sector model of enterprise governance into the public sector means that changes must be made on the mode of board appointment and resources management. To this end, professional matrix should be used as the yardstick for appointing board members to oversee the MDAs as against political rationality which was a dependent variable. The appointment of board members on the basis of political rationality should be jettisoned in favour of professional rationality so that the powers, authority and independence of board members could be enhanced in enterprise decision making process. This will strengthened public sector governance in Nigeria.

Corporate governance involves what Blair (1995) identified as the whole set of legal, cultural and institutional arrangements that determine what publicly traded corporations can do, who controls them, how the control is exercised and how the risks and returns from the activities they undertake are allocated. These institutional reforms have brought about fiscal discipline to the general system of public administration and broaden the scope of public sector reform to all sectors of the economy. The reforms manifested in institutional regulation, legal reform, enterprise rights, operational reforms and management reform.

4. UNDERSTANDING THE RATIONALITIES OF FISCAL DISCIPLINE AND PUBLIC SECTOR GOVERNANCE

The relationship between fiscal discipline and public sector governance can be understood within the context of political, legal, economic and socio-cultural rationalities.

4.1. Political Rationality and Fiscal Discipline

The basis for fiscal discipline, democracy, sustainable development, nation building and good governance is laid by politics. Political values and political culture defines the context of public administration and the efficiency and effectiveness with which administrative institutions take decisions that has qualitative and quantitative impact on the well-being of citizens. Generally, laws are made and interpreted within the context of political probability, political realism and political rationality. The motivation to initiate purposeful and goal driven reforms and implement them can only be successful if there is sufficient political will to promote it. The powers of public institutions and the individual that heads it are defined by politics, the constitution and or Acts of Parliament. The constitution sets the standard for political actions, public administration, the fiscal policy, institutional relations and the application of legal remedies to breaches of the law. This can be undermined by non-progressive political culture. Chapter V Part E Section 80-89 of the Constitution of the Federal Republic of Nigeria 1999 spelt out the mode of managing public funds in Nigeria. Section 80 charged all public revenue to the Consolidated Revenue Account wherein section 85 (1-6) addresses the issues relating to the auditing of public account. The enforcement of this statutory responsibility lies in the political will to enforce it. Political will defines the content and context of fiscal discipline and the sanctions imposed on individuals and organisations that violate the fiscal responsibility rule. In Nigeria, the political rationality to satisfy the interest of the political oligarchy by elected political leaders, the high cost of political transition, the economic rationality that sustain the political oligarchy in power and the legal rationality to defend the political decisions of the ruling political party undermine the establishment of a viable tradition of fiscal discipline. Part of the institutional measures put in place to promote fiscal discipline in Nigeria are products of political decisions hence the establishment of the Independent Corrupt Practices and Other Related Offences Commission, the Economic and Financial Crimes Commission, the Code of Conduct Bureau, the Bureau of Public Procurement (Due Process Mechanism), the Fiscal Responsibility Act 2007, the Integrated Payroll and Personnel System, Treasury Single Account, the Medium Term Expenditure Framework and the Nigerian Extractive Industries Transparency Initiatives (NEITI). The NEITI Act 2007 strengthened transparency and accountability and information disclosure in the extractive industries in Nigeria and mandate companies to disclose what they earn and what they pay and the relevant government agencies to disclose what they receive and what was expected to be paid to them as government revenue. These fiscal reforms were designed to strengthen fiscal discipline and promote long term macro-economic stability in Nigeria on a sustainable basis (FRA, 2007: 401-402). It provides the legal framework for the efficient management of public funds.

4.2. Legal Rationality and Fiscal Discipline

The process of promoting and enforcing fiscal discipline depends on the legal tradition and the legal instruments put in place by government to interpret breaches of the law by individuals and organisations. The interpretation of fiscal responsibility rules from the legal-juristic point of view is value laden with legal rational specificities that provides justifications for the interpretation and analysis of fiscal indiscipline by individuals, organisations and government institutions. In Nigeria, the legal instruments put in place by government to promote fiscal discipline are numerous but not limited to the under listed.

4.3. The Fiscal Responsibility Act 2007

This is one of the legal instruments put in place by government to promote fiscal discipline. The Fiscal Responsibility Act creates a legal platform for the efficient management of public finance by MDAs and the three tiers of government. The basic components of the FRA 2007 are the Medium-Term Expenditure Framework, the budget, national revenue and debt administration. The Medium Term Expenditure Framework (MTEF) promote the macro-economic policy of government within the nexus of taxation, recurrent expenditure (non-debt), debt expenditure, capital expenditure, borrowing, lending and investment and other development priorities of government within a three (3) years fiscal plan. This policy framework is captured in the Fiscal Strategy Paper (FSP) based on a Pre-determined Commodity Reference Price (PCRP) and the tax revenue projections of government. The Fiscal Strategy Paper contained a consolidated debt statement (CDS) with descriptive analysis of the significance of the debt liability of government as well as remedial measures to reducing liability. It contains a detailed statement of the nature and fiscal significance of contingent liability and quasi-fiscal activities and measures put in place to ameliorate the impact of the liability. The FSP placed in context the aggregate amount appropriated by the National Assembly for each fiscal year and the estimated aggregate revenue and the deficit within the range of 3% of the estimated GDP or any sustainable percentage determined by the National Assembly and the President. The 3% of GDP ceiling may be exceeded if the President feels the necessity to do so base on the national security implication of such expenditure. To this end, fiscal discipline requires fiscal prudency, high investment in capital projects, marginal savings and marginal recurrent expenditure based on the marginal propensity to generate revenue. This rational economic principle is undermined by the dialectics of the political interest of a political oligarchy that promote dependency (domestic and international) and the economic rationality that sustain the political interest of the political oligarchy.

Under the MTEF, the President of the Federal Republic of Nigeria is mandated to make adjustment on the medium term Expenditure framework subject to changes in fiscal indicators.

The annual budget is one of the policy instruments used in promoting macro-economic development. The budget is prepared in line with the Medium Term Expenditure Framework as contained in Part 3 section 18 (1–2) of the Fiscal Strategy Paper (FSP). The budget is accompanied by:

i. Cost control measures and a revenue framework broken down into monthly collection targets based on the Predetermined Reference Commodity Price (RCP);
ii. A fiscal target based on the rate of inflation;
iii. Targeted fiscal account balance and a fiscal Appendix that evaluates the fiscal risk to the annual budget; and
iv. Measure to offset the risks as stipulated (Section 19-20 Part 3, FRA 2007).

In Section 21 (2a-b), all government Ministries, Department and Agencies (MDAs) are required to prepare their budget estimates for the prospective three fiscal years in line with Acceptable Accounting Practice (APP). In section 22 of the Fiscal Responsibility Act 2007, each MDA is mandated to establish a General Reserve Fund (GRF) into which one fifth (1/5) of its operating surplus for each fiscal year is credited into. The balance of the operating surplus is paid into the Consolidated Revenue Fund (CRF) of the federal Government within one month in line with the statutory deadline for the publication of the agency account. The agency surplus is classified as Federal Treasury Revenue (FTR). The audited financial report of each agency is published three (3) month after the end of each fiscal year as stated in Sections 20 and 22. In Section 25 of the Fiscal Responsibility Act 2007, the Accountant General of the Federation (AGF) is mandated to prepare an Annual Cash Plan (ACP) showing the estimated monthly cash flow and the actual cash flow (ACF). In section 26 of the FRA 2007, the Minister of Finance prepares and publishes the schedule of financial disbursement in line with the Annual cash plan 30 days after the approval of the Appropriation Act by the National Assembly and the President to facilitate cash disbursement to MDAs for budget implementation. Financial shock resulting from short falls in expected revenue is managed within the fiscal risk criteria. Today, the monthly allocations from the federation account to three tiers of government are published periodically in the Nigerian daily newspapers.

One of the cardinals of fiscal discipline is efficient revenue allocation and administration. Section 32 of the FRA 2007 creates a balancing mechanism between revenue payment and revenue allocation among the tiers of government in the revenue allocation circle. To this end, if a state government is to remit the sum of three billion (N3 billion) naira as tax revenue generated and the federal allocation to the state for the same month under consideration is five billion (N5 billion) naira, the federal government gives the state government in question two billion (N2 billion) naira to complement the three billion (N3 billion) naira generated. In each fiscal year, the proposed Reference Commodity Price fixed by government is used to estimate the expected revenue target and expenditure profile of government. the Reference Commodity Price (RCP) in Nigeria to determine the income and expenditure of government is the price of crude oil in the international market. Any fall in the proposed price of the RCP often results to budget deficit and the motivation to borrowing to offset budget deficit. Section 35(1) of the FRA 2007 stipulates that where the Reference Commodity Price rises above the predetermined price level the resultant excess fund should be paid into the Excess Crude Account (ECA) maintained by the Central Bank of Nigeria. The Excess Crude Fund (ECF) formed part of the Consolidated Revenue Fund (CRF) of government and is shared among the three tiers of government.

Efficient debt management policy is one of the fiscal measures embedded in the MTEF with a view to promoting macro-economic stability. Public debt in Nigeria is managed by the Debt Management Office. Section 7 and 50 Part 1 of the Second Schedule of the 1999 Constitution of the Federal Republic of Nigeria and Section 41 (1a-b) of the FRA 2007 established a debt sustainability profile for government. The 1999 constitutions spelt out the conditions and limits of consolidated debt to be incurred by each tier and agency of government. Any agency or tier of government that wishes to borrow must state the purpose for borrowing and the cost-benefit analysis of the loan. In Section 45 of the FRA 2007, banks and financial institutions are mandated to obtain proof of compliance with conditions for incurring public debt before lending to any tier or agency of government. Section 48–50 of the FRA 2007, emphasised the need for the periodic auditing and publishing of the income and expenditure of government.

4.4. The Treasury Single Account

The importance of the treasury to the promotion of macro-economic stability and development is underscored by Garamfalvi (1996) and Allen and

Tommasi (2001, p.241). The Treasury Single Account (TSA) emphasised that payments for all government transactions, salaries and entitlements into the beneficiaries' accounts through the e-payment platform. The TSA strengthens the cash management system and is coordinated by the Office of the Accountant-General of the Federation and the Central Bank of Nigeria. It is made up of One Central Account and Passive Treasury Single Account (PTSA). The latter is organised on the basis that:

a. Line ministries holds accounts at the central bank as subsidiary accounts of the treasury's accounts;
b. Spending agencies holds accounts either at the central bank or with commercial banks authorised by the treasury;
c. Spending agencies' accounts are zero-balance accounts with money being transferred to these accounts as specific approved payments are made or the bank accept the payment orders sent by spending agencies up to a certain limit defined by the treasury;
d. Spending agencies' account are automatically cleared at the end of each day (where the banking infrastructure allows daily clearing); and
e. The central bank consolidates the accounts position of government at the end of each day including balances in all government accounts.

The Treasury Single Account makes it difficult for any individual and or government agency to make payment into fictitious account hosted for ghost workers and fictitious transactions.

4.5. The Integrated Payroll and Personnel System

The Nigerian public service is characterised by the ghost worker syndrome and inefficient personnel data management system. This phenomenon has made the efficient management of personnel records difficult. The Integrated Payroll and Personnel System (IPPS) was introduced in 2004 in Nigeria (Kenya in 1994) as a means of tracking payment made on personnel salaries, allowances and other ancillary social security benefits. It is designed to provide the best practice mechanism in personnel management, personnel cost accounting and personnel account reporting. The IPPS enables government to:

i. Maintain accurate and consistent personnel data in the public sector;
ii. Bring about uniformity in the management of personnel records in the MDAs by capturing the bio-data of employees;
iii. Overcome the challenges associated with the manual compilation and control of the payroll system, personnel inventories in the registry and promote the integrity of the personnel data management system in MDAs;
iv. Create an efficient computer-based system for gathering, storing and processing information for management decision making relating to recruitment, training, postings, transfers, promotions and retirements, salary administration and the enforcement of ancillary statutory financial benefits;
v. Minimise wastage incurred through the ghost worker syndrome;
vi. Generate data that facilitates decision making on good governance; and.
vii. Electronic remittance of employees' salaries to staff bank accounts through the Nigeria Inter-Bank Settlement System (NIBSS).

The result generated from the pilot test conducted in 2014 in six (6) Ministries, Departments and Agencies (MDAs) led to reduction in personnel cost worth about five hundred million (500,000,000.00) naira. Presently, about 30,000 verified civil servants' biometric personnel data have been captured on the IPPS.

4.6. Public Procurement Reform

The Public Procurement Act 2007 is one of the reform measures undertaken by government to promote fiscal discipline. It established a threshold for budget implementation and the management and monitoring of contracts and provides open platform for contractors to bid for contracts at competitive pricing level. It enables government to get the right value for the tax payers' money and reduce the risk exposure to corruption in the public sector. The PPA 2007 placed limitations on the cost of contract to be approved for implementation by heads of MDAs. Contract cost above one hundred million (N100, 000, 000. 00) naira must be submitted to the Bureau of Public Procurement (BPP) for approval and certification and subsequent award to contractors by heads of MDAs within the procurement circle. A procurement circle involves the identification of user needs, project preparation and the determination of procurement procedure and the tendering process. The tender process involves advertisement for prequalification for contract, competitive bidding, tender announcement of elements of the projects or goods and services to be contracted, the selection criteria and the award arrangements. The criteria for selection of prospective contractor and award of contract under the public procurement law are price, technical skill and quality of services (technicality and cost effectiveness). However, this process is undermined by corruption and fiscal indiscipline and the subversion of the due process mechanism in public procurement.

4.7. Economic Rationality and Fiscal Discipline

Rational economic principle advocates prudent spending, reduced or low cost of governance, high expenditure on capital projects, average recurrent cost of governance and expenditure prioritisation along the revenue index of government and public needs. In many developing countries, this economic principle is undermined by the dialectics of the political interest of the political oligarchy and the economic rationality that sustain the interest of the political oligarchy in power. Otinche (2015, pp.10-15) in his discussion on the "Bureaucracy and the Recovery of Human Values" argued that the political interest that sustains a neutral bureaucracy is undermined by the economic rationality that sustains the ruling political party in power. The contradiction between bureaucratic values and political values beclouds the capacity of the bureaucrats to promote fiscal discipline and the vision for development hence the high rate of corruption in the public sector. Corruption and the high cost of governance through the payment of high emoluments to elected public officials undermined the rational economic principle that promotes marginal expenditure. The emoluments of elected officials should be determined by the proportionality of the marginal revenue generated, the average cost of governance and the marginal revenue saved as national revenue (savings). Otinche used the **Public Expenditure Probability Thesis (PEPT)** to explain economic rationality of fiscal discipline. Herewith, **PEPT** refers to:

a. Marginal Public Expenditure should not outstrip Marginal Publicly Derivable Revenue **(MPE<MPDR);**
b. Surplus of Publicly Derivable Revenue (SPDR) after Marginal Expenditure should be kept as saving in the Treasury **(SPDR= S);**
c. Investment of Savings in Capital Projects creates National Wealth **(S+I=NW).**
d. The Propensity to Invest Savings in Capital Projects **(PISCPs)** as indices of National Wealth must be higher than the Propensity to hold Savings as Foreign Reverse **(PSFR)** in the World Bank;
e. Large deposit of funds in the World Bank as Idle capital limits the capacity for National Investment and the creation of National Wealth. This is the bane of the development policies recommended by the World Bank and the International Monetary Fund for third world nations.
f. Savings minus Investment equals to Idle Capital: **(S-I=IC);**
g. Idle Capital minus Investment equals to Underdevelopment **(ID-I=UND);**
h. Low rate of borrowing/debt burden boost the economic health of a nation.
i. The Rate of Public Borrowing should be Proportional to the rate of Debt Sustainability and Debt Profitability: **RPB≈RDS/DP**

Where:
PEPT=Public Expenditure Proportionality theorem
MPE= Marginal Public Expenditure;
MPDR= Marginal Publicly Derivable Revenue;
SPDR= Surplus of Publicly Derivable Revenue;
S-I=Saving minus Investment;
PISCP>PSFR: Propensity to invest saving in capital projects should be greater than the Propensity of Saving in Foreign Reserve;
ID= Idle Capital;
ID-I=UND: Idle Capital minus Investment equals to Underdevelopment;
S+I=NW= Savings + Investment= National Wealth.
RPB≈RDS/DP: Rate of public borrowing is proportional to rate of debt sustainability and debt profitability.

This rational economic calculations strengthen economic growth can be undermined by irrational political calculation and the probability of political actions that support political party financing. In a nascent democracy, the patronage politics is promoted via the award of contracts to godfathers against rational economic considerations. Most of the contracts awarded to political godfathers are rarely or poorly executed and no accountability is demanded of them due to entrenched political interest. Part of this problem emanates from the economic liability incurred by candidates during elections. This leads to fictitious contracting, indecent disclosure of public expenditure and the diversion of public funds to offset financial liabilities to banks and political godfathers. The high cost of election was partly responsible for the inability of many state governors to pay workers salaries in the last some months in the hay days of President Ebele Goodluck Jonathan administration. Arising from this development, the Buhari-led All Progressive Congress (APC) government provided financial bail-out valued at N338 billion to 27 state governments. Details are shown on table 1 below:

Table 1. Amount given as financial bail-out to States

S/N	*State*	*Amount*
1	Abia State	N14.152 billion
2	Adamawa	N2.378 billion
3	Bauchi	N8.60 billion
4	Bayelsa	N1.285 billion
5	Benue	28.013 billion
6	Borno	N7.680 billion
7	Cross River	N7.856 billion
8	Delta	N10.036 billion
9	Ebonyi	N4.063 billion
10	Edo	N3.167 billion
11	Ekiti	N9.604 billion
12	Enugu	N4.207 billion
13	Gombe	N16.459 billion
14	Imo	N26.806 billion
15	Katsina	N3.304 billion
16	Kebbi	N0.690 billion
17	Kogi	N50.842 billion
18	Kwara	N4.320 billion
19	Nasarawa	N8.317 billion
20	Niger	N4.306 billion
21	Ogun	N20.00 billion
22	Ondo	N14.686 billion
23	Osun	N34.988 billion
24	Oyo	N26.606 billion
25	Plateau	N5.357 billion
26	Sokoto	N10.093 billion
27	Zamfara	N10.020 billion
	Total	**N338 billion**

Peter, D. (2015), Salary Crisis: Buhari to Bail-out States, Vanguard October 4

The relief package provided by the federal government is to be paid by the state government within a period of 20 years at 9% interest rate. The bail-out finance is managed by the Central Bank of Nigeria (CBN) and the Debt Management Office (DMO). The affected states are allowed to assess the fund given the approval of the loan package by the State Executive Council and the House of Assembly of the state and on issuance of the Irrevocable Standing Payment Order (ISPOs). The ISPO conveys the authority to deduct at source the percentage of loan repayment from the federation account allocation due to the indebted state. Financial indebtedness increases the cost of governance but this can also be made worse by the payment of huge allowances and emoluments to elected and appointed public servants. In the years 2010 and 2011, the sum of N138.015 billion and N232.736 billion was allocated to the National Assembly respectively. The average cost of one member of the National Assembly with 469 legislators (360 members of the House of Representatives and 109 Senators) is estimated at N294, 375million ($1.962 million). The statistical detail is presented on table 2 below.

Table 2. Accommodation and Furniture Allowance and Car Loan of Lawmakers in Nigeria as at 2014

S/N	*Annual Package*	*Senator*	*Member HOR*
1	Accommodation	N4 million	N3.97 million
2	Car Loan	N8 million	N6.9 million
3	Furniture Allowance	N6 million	N5.956 million
4	Constituency Allowance	N5 million	N1.7 million
5	Car Maintenance	N1.52 million	N595, 563
6	Entertainment	N202, 640	N198, 521
7	Recess	N202, 640	N198, 521
8	Ward rope Allowance	N405, 280	N397, 042
9	**Total**	**N35, 000, 000.00**	**N29, 28, 000.00**

Source: Daily Trust Monday July 22, 2014:1

Arising from the above statistics, the former governor of the Central Bank of Nigeria, Sanisu Lamido Sanisu, argued that 25% of the national budget is spend on parliamentary (National Assembly) administration yearly. The statistics for legislators at the state government level is also high as shown on table 3 below.

Table 3. Pay Package of State of Legislators in Nigeria as at 2014

S/N	*Benefit Categories*	*Amount*
1	Basic Salary	N1.34 million
2	Accommodation	N802, 335.00
3	Vehicle	N5.3 million
4	Furniture Allowance	N2 million
5	Vehicle Maintenance	N267, 445.00
6	Recess	N133, 772.00
7	Constituency Allowance	N334, 306.00
8	Domestic Staff	N334, 306.00
9	Utilities	N133, 772.00
10	Severance/Gratuity	N2.6 million
11	Newspaper	N66, 861.00
13	**Total**	**N12, 000,000.00**

Source: Daily Trust, November 25, 2014:1

The 36 state governments spent twelve billion (₦ 12,000, 000, 000.00) naira on the salaries and allowance of 976 legislators in the 36 state Houses of Assembly in 2 years. Cumulatively, the annual recurrent expenditure for 976 state legislators is N6 billion. Legislators at the state level are also entitled to twenty five thousand (₦ 25, 000.00) naira as duty tour allowance and US$600 daily while on foreign trip. The principal officers of the federal and state legislatures are also paid responsibility allowances. The salary and allowances of ministers of the federal republic of Nigeria is also outrageous as shown on table 3 below.

Table 4. Emolument of Ministers in Nigeria as at 2014

S/N	*Emolument*	*Minister 1*	*Minister 2 state*
1	Basic salary	N2 million	N1.9 million
2	Accommodation	N4 million	N3.9 million
3	Vehicle loan	N7.8 million	N7.8 million
4	Furniture allowance	N6 million	N5.8 million
5	Vehicle maintenance	N1.5 million	N1.4 million
6	Entertainment	N911,880	N587, 274
7	Severance gratuity	N6 million	N5.8 million
8	Domestic staff	N1.5 million	N1.4 million
9	Personal Assistants	N506, 600.00	N489, 395.00
10	Leave Allowance	N202, 640.00	N195, 768.00
11	Newspaper	N303, 960.00	N293, 637.00
12	Utility	N607, 920.00	N587, 274.00
	Total	**N32,000,000.00**	**N30, 000, 000.00**

Source: Daily Trust, Thursday July 25, 2014:1

The salaries and allowance of ministers of the Federal Republic of Nigeria is higher than what their counterpart in Britain, United States of America, South Africa, Singapore, Australia and France take home monthly as salaries and allowances. For instance, a minister in Singapore earned N240 million annually. The annual emolument of thirty two million (N32, 000,000.00) Naira ($200,000) earned by a minister in Nigeria is 120 times the Gross Domestic Product (GDP) of Nigeria. When it is compared with the national wealth of Nigeria, it amount to 28 times the GDP of Nigeria per person. With 30 ministers and 12 ministers of state under the Jonathan administration, the Federal Government spend about N1.3 billion annually on the emoluments of Ministers alone. The Buhari administration has reduced the numbers of ministries to 28 ministries with 36 ministers to reflect the federal character principle. In the same vein, President Muhammadu Buhari and some public officers reduced their basic salary to the sum shown on table 5 below:

Table 5. New Salary Structure for the President and Some Principal Officers

S/N	*Officer Category*	*Monthly Salary*
1	President of the Federal Republic of Nigeria	N14.4 million
2	Vice President of the Federal Republic of Nigeria	N12, 126, 290 million
3	Senate President	N8.69 million
4	Deputy Senate President	N8.082 million
5	Senate Majority Leader	N12, 968, 960 million
6	Senate Minority Leader	N12, 908, 168 million
7	Chief Whip	N12. 867 million
8	Speaker of the House of Representatives	N4, 334, 942 million
9	Deputy Speaker	N4, 002, 309. 94 million
10	Speaker of State House of Assembly	N2, 049, 834.75 million
11	Deputy Speaker of State House of Assembly	N1, 807, 478.13 million

Source: Vanguard, Sunday October 4, 2015.

To this end, fiscal discipline requires fiscal prudency and marginal expenditure on salaries and allowances of public officers and other public items based on the marginal propensity of the revenue generated. The arbitrariness in the allocation of salaries and allowances to public officers in Nigeria results from the tradition of military rulership by Decree and Edict. Decree and Edict provide arbitrary platforms for the authoritative allocation of national resources. Decrees and Edicts was used to determine who gets what, when and how of national revenue among the federation units at percentages shown below:

i. The Federation Government -56.00%;
ii. The State Government -24.00%; and
iii. The local Government Council -20.00% (FRN 1982, 1992 No. 106 $ S.19 of 2002).

The 56.00% allocation to the federal government is administered on the following development need:

a. Federal government 48.50%;
b. General Ecological problem 2.00%;
c. Federal Capital territory 1.00%;
d. Stabilization Account 1.50%;
e. Development of natural resource 3.00%; and
f. Derivation funds 13%.

This mode distributing of national resources among the three tiers of government has implications on fiscal discipline.

4.8. Socio-Cultural Rationality and Fiscal Discipline

The socio-cultural context of governance is critical to fiscal discipline and public sector governance in Nigeria. Discipline is a habit and an ethical value that is inculcated by agents of socialisation like the family, peers, school, religious institutions (church/mosques) and media. On basis, corruption thrive where there is a social foundation that supports it (members of the civil society tolerate and encourage it). Where the expectation of significant peers and social obligations on public officials is very high the motivation to steal and embezzle public funds is also high. For instance, in Nigeria, as a public officer, you are expected to drive a good car, own a good house and make high donation in social gatherings. This demand may far exceed the monthly income of an average civil servant whose attempt to meet up with the social expectation expose himself to financial chicanery and other corrupt tendencies. In such society, it is difficult to enforce financial discipline more so if there are weak tenets for the application of the law. During elections, candidates standing for elections are made to buy votes and electoral positions from the electorates and political godfathers. Such political culture undermines fiscal discipline, democracy and good governance.

5. CHALLENGES

Many of the reform measures undertaken by government to promote fiscal discipline were challenged by corruption, faulty electoral process and patronage politics. Patronage politics in a democracy increases the cost of election. There is need to reform the electoral process and reduce the cost of governance in general. Public funds are siphoned by elected public officials in collaboration with the bureaucrats who defines and conceal channels of financial infractions. Patronage fees are paid to political godfathers through fictitious contracting. Fictitious contracting, over-invoicing and the splitting of contracts into smaller units by heads of MDAs in violation of the due process norms are indices of fiscal indiscipline. The splitting of contracts into smaller units arises from the renegade behaviour (gross misconduct) of bureaucrats to submit contract proposals to the Bureau of Public Procurement (BPP) for certification and approval. The resultant poor implementation of the budget is a limitation on sustainable development. The hasty award of contracts by heads of agencies towards the end of a fiscal year to avoid returning the unspent funds to the federation account and the possibility of budget cut in the subsequent fiscal year accounts for the abuse of the public procurement rule. The political will to curtail this budget management strategy is relatively weak. There is also the problem of lack of political will to implement institutional reforms that promotes fiscal discipline, transparency and accountability due to the conspiracy of the equals. This in turn weakens the civil, legislative and the judicial advocacy for policy reforms against the status quo ante.

6. RECOMMENDATIONS

The structural reforms carried out by the federal government between 1999 and 2015 have no doubt promoted transparency and accountability in the public sector and strengthened the fabric of good governance. Today, there is relative restrain on the misuse of public funds for selfish end by public officials due to the countervailing powers of the Economic and Financial Crimes Commission and the Independent Corrupt Practices and Other Related Offences Commission. However, much need to be done in terms of providing political support to the anti-corruption agencies and creating public awareness on the cost and benefits of corruption and fiscal indiscipline on good governance. This is necessary because good laws can be rendered ineffectual if members of the civil society do not accept the legal values it promotes. What is required now is a change in behaviour by Nigerians in general. Every Nigerian must move away from the old tradition of doing things in everybody's way but to nobody interest (selfish interest). There is need to promote self-discipline and fiscal discipline in public sector governance. The capacity of public institutions to promote democracy, sustainable development and good governance could be strengthened by budget discipline and budget accountability. These variables depends on the attitudinal disposition of the citizens to effectively and efficiently manage public resources. The need for positive change has come and we must accept and sustain the change without reservation. We must take those painful but necessary decisions that will lead us to where we desire to be as a nation and achieve our vision for development by the year 202020. Nigeria requires strong institutions and individuals with a vision to promote sustainable development, democratic growth and nation building. The task of building a virile nation is handled by strong individuals and strong institutions. Provision should be made for whistle blowing and the protection of whistle blowers to encourage the disclosure of financial infraction into the treasury by public servants.

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