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Ukraine

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THE AGENCY OF EMPLOYMENT AND UNEMPLOYMENT IN NIGERIA: ISSUE AND CHALLENGES

Adeoye Amuda Afolabi*

* Department of Economic and Management Studies, College of Social and Management Sciences, Afe Babalola University, PMB 5454 Ado-Ekiti Nigeria

Abstract

Unemployment has become more alarming within the past decade as Nigerian higher institution of learning produced a large number of University and College graduate for few jobs. The gravity of this situation resulted to the formation of the National Directorate of Employment (NDE) with the mandate to articulate programmes that will help combat mass unemployment in Nigeria. This paper examines the performance of the agency as well as assesses the trend in the unemployment rate at pre and post establishment of NDE in Nigeria. Data were collected through survey questionnaire and from National Bureau of Statistics. We find that many unemployed graduate does not have the opportunity to participate in the NDE programme, insufficient funds, political interference, corruption and lack of access to loan are among the key factor militating against the success of the programme. We recommends that State government in Nigeria should to contribute in solving unemployment in Nigeria and Federal Government should support the NDE programme in term of financial and politician should stop interferes with the activities of NDE.

Keywords: Entrepreneurship, Insufficient Fund, Political Interferences, Corruption and Survey Questionnaire

1. BACKGROUND OF THE STUDY

The task of achieving an economically prosperous country is a process which can only be achieved as part of the development process. Hence, Adebayo (1999) opines that what constitutes development is a question of what to write about a country's developments which are enumerated as what has been happening to poverty? What has been happening to inequality? And what has been happening to unemployment? No doubt, if all these three have declined from high level to low level in a country it could be said that the country is undergoing development (Animashaun, 2007; Adebayo, 1999; Chukwu, 1997). However, if one or two of these central problems have been growing worse especially if the entire three have there it would be inappropriate to call the result development even if per capital income has doubled. Okafor (2011) argued that the global economic depression which started in the early 1980's has caused a rapid deterioration in Nigeria's economy. Osuala (2007) supported that industrial output has become very low and commercial activities are leading to loss of employment per thousands of citizens through retrenchment and rationalization in many industries.

Furthermore, the formal educational sector has continued to turn out a teaming population of graduates annually without a matching increase in employment opportunities (NDE 2000; NBS 2010). This trend was confirmed by the labour force survey conducted by the national manpower board in 1966 and 1967. The situation had become so bad that by the end of 1985 the unemployment situation had reached desperate and alarming proportions (10%-12%) not only in the urban area but also in the rural area, while in 1974 was limited to the urban centers. NBS (2006) reported that the demand for employment opportunities in the country is ever increasing with demand clearly outstripping supply and the resultant effect is the increase in different kinds of antisocial activities such as house breaking, armed robbery, human and drug trafficking and most recently militancy and terrorism. Onyeonoru (2008) suggested measures to redress the situation and stem the tide of increased anti-social activities arising from youth's unemployment by establishing the National Directorate of Employment (NDE) with the aim of institutionalizing schemes to support the self-employment aspirations of the Nigerian youths. Banks and industries were set up in the rural areas to give jobs to the rural dwellers. Many other programmes and policies were established but were not effective enough as to restructure the economy.

Privatization and commercialization of certain government establishment led to workers being laid off from their jobs resulting in greater unemployment (Ajagbe et al., 2015; Ajagbe et al., 2013). This situation combined has made it even more difficult for the NDE to combat the grooming

problems of unemployment in the country. This study has been rationalized by the motivation to fill in the gap in knowledge as to the aim and objective of NDE. The problem now is finding solution (s) to unemployment problems in Nigeria. The government on the other hand decided to alleviate this problem by embarking on self-employment schemes through entrepreneurship as one of the measures to solve the problems. However, despite government efforts unemployment still persist because not all unemployed have been covered under the government self-employment schemes. The motivation of this paper is to assess the activities of the National Directorate of Employment on the issues of unemployment. The pertinent research question is that to what extent has the programme of National Directorate of Employment (NDE) have solved the employment in Nigeria; also what is the pattern of the trend of the unemployment in Nigeria?

2. LITERATURE REVIEW

2.1. Concept of Employment

Employment is a relationship between two parties, usually based on a contract, somebody being the employer and the other being the employee. The classical economist believes that full employment is achieved "when everybody who at the running rate wages wishes to be employed" (Oyebade, 2003; Lebreton, 2000; Babbie, 2001). The classiest view full employment in the economy as a normal situation and the existence of unemployment was perceived to be abnormal (Nwabah, 1995). There is an automatic movement of the economic system towards full employment. If unemployment occurs then it is caused by the interference of the government in fixing minimum wage and also by unionizing labour. Keynes (1936) argues that anybody who is not willing to work at the wage rate is not unemployed. He is rather voluntarily unemployed. He further stresses it that it is not possible for people to be prepared to work and they cannot find work. In other words involuntary unemployment does not exist. Keyness (1936) posits that when we talk of full employment we are talking of the absence of involuntary unemployment. He believes that when everybody who desires to work finds work and this result to full employment. Full employment according to Keynes can be achieved through maintaining adequate effective demand.

In addition, Adebayo (1999) agreed that full employment can be said to be achieved when everybody in the working population has a job working to full capacity. It then means that if some people in the working population is not working to capacity say a full week or a full month or production is showed down below its normal pace then we will have less than full employment exists when all the resources available to a nation is committed to production. If the resources are efficiently employed then that society is at its maximum production and of course unattainable. Okafor (2011) concluded that the definition of full employment not withstanding is of the key objectives of government alongside price stability, balance of trade and payment and economic growth. However, the alternative to full employment is unemployment.

2.2.Concept of Unemployment

The phenomenon of unemployment has been an issue of discussion at both micro and macro-economic levels. Authors mentioned that this concept has been generating a lot of heat among various schools of thought in the field of economic theory (Learns, 1975; Lebreton, 1997; Oyebade, 2003). However, economic theory is generally consumed with the problems of allocation and utilization of the means of production however the condition for labour employment has become important because human beings constitutes both the means and ultimate aim of productive activity. Jhingein (1975) argued that unemployment is one of the most persistent and unmanageable problems facing many countries. The author describes it as an involuntary idleness of a person willing to work at a prevailing wage rate but could not find job. A contrary concept to the earlier is involuntary unemployment which is a situation where the unemployed persons is willing and able to accept a given job at the going job rate but the job is out of reach or he cannot get the job (Animashaun, 2007; Adebayo, 1999). Thus this situation of unemployment leads to economic waste.

Beside this, Osuala (2007) opine that this is why concerned authorities try to control it by using suitable policies, make frantic efforts to provide solutions to the menace. There is no doubt that an unemployment problem is biting hard on Nigerians. This is clearly seen on the amount of young school leavers roaming the streets in search of jobs, which they never find. Unemployment causes untold hardship and sufferings to the people. This is the reason why unemployment is an important phenomenon to be discussed. There are seven types of unemployment this include frictional unemployment, technology unemployment, seasonal unemployment, deficient demand unemployment, structural unemployment, search unemployment and cyclical unemployment.

2.3. History of National Directorate of Employment (NDE)

The NDE was established by Act CAP 250 of the laws of the Federal Republic of Nigeria (NDE 2000, 2001). The journey started with the establishment of a national committee on strategies for dealing with mass unemployment under the auspices of the Federal Ministry of Employment, Labour and Productivity and with the technical assistance of the International Labour Organization (ILO) in March 25th 1986. The committee, which became known as the "Chukwuma committee" made recommendations on which the national directorate of unemployment was established upon in November 22nd 1986. Its initial core programmes were finally launched in January 30th 1987 by the then chief of general staff vice Adminral Augustus Aikhomu on behalf of the president and commander in chief of the armed forces General Ibrahim Badamasi Babangida.

2.3.1. Objectives of National Directorate of Employment (NDE)

The objective of the directorate as contained in the 1987 presidential budget speech was to concentrate its efforts on the re-activation of public works, promotion of self-employment, organization of artisans into co-operatives, and encouragement of a culture of maintenance and repairs. It is on this premise that the programs of the directorate are based (NDE 2000; 2001). The directorate has since 1986 grown into nationwide institution whose impact is felt by every sector.

- To design and implement programmes to combat unemployment
- To articulate policies aimed at developing work programmes with labour-intensive potential.
- To collect and maintain a data bank on employment and vacancies in the country with a view to acting as a clearing house to link job seekers with existing vacancies in collaboration with other government agencies.
- To implement any other policies as may be laid down from time to time by the board established under Section 3 of its enabling act.
- *Vision:* To sustain economic development in Nigeria through job creation
- *Mission:* To be a vehicle for economic development through combating of unemployment in Nigeria
- *Structure:* The Directorate consist of a National Advisory Council and Management Board which gives guidelines for the management of the affairs of the Directorate. The Board consist of the Minister for Employment, Labour and Productivity and fourteen other members to be appointed by the President, on the recommendation of the Minister, which must be different important ministries.

2.4 Employment and Unemployment in Nigeria

Onueonoru (2008) posit that the global economic recession of the early 80's caused a rapid deterioration in Nigeria's economy. Industrial output shrank to an all-time low and commercial activities were consequently reduced leading to the loss of employment opportunity for millions of Nigerians. NBS (2009) reported that the unemployment situation in the country had become really distressing with unemployment figure going as high as 9.9% for females and 6.9% for males in the urban areas while the rates for the rural area were 6.3% and 3.5% for female and male respectively.

Moreover, Osuala (2007) revealed that about 80% of graduates secured paid employment within 3 months after their youth corps in 1974. The National Youth Service Scheme (NYSC) in collaboration with the manpower board recorded that about 93% of 1983 graduates who completed their national service remained unemployed in years after (NBS 2010). In August 1985, the Babangida administration came to power and immediately realized the threat posed by the menace of unemployment to the social political and economic well-being of the country. Babbie (2001) argued that youths and graduates are the hardest hit with growing joblessness resulting to increasing despondency among youths and their parents. The introduction of the Structural Adjustment Programme (SAP) was aimed to stem the tide through the restructuring of the economy. Another aim of SAP was to reduce the dominance of unproductive investment in the public sector, improve the sectors efficiency and intensify the growth potential of the private sectors (Abdullah et al., 2012; Ajagbe et al., 2013). In a bid to rationalize government business enterprises, this resulted to loss of jobs due to retrenchment and outright layoffs. The situation became aggravated by the same action by a large portion of the private sector, which had hitherto survived basically on foreign inputs for their production (Abdullah et al., 2012). The strict monetary measures occasioned by the structural adjustment especially that of an adverse exchange rate saw to the liquidation of such business. The result of all these was the outrageous high rate of unemployment. The government on the other hand seems to realize this and the implications it would have on the economy hence National Directorate of Employment (NDE) was established as a permanent institution for tackling the problems.

2.4.1. Government Polices on Employment in Nigeria

The period 1960 to 1990 saw a tremendous growth in the numbers, size and activity of businesses in the country particularly the small and medium enterprises (Bilau et al., 2015). These heightened activities encouraged government to formulate a set of regulations and policies to check unfair company practices. This was done by government deciding the kind of business one should engage in. However, certain business ventures are forbidden by law because of their determined effects on the government, other businesses and the public in general. The policy maintains that no individual or group has the legal right to manufacture military or paramilitary weapons such as land mines, atomic weapons except licensed to produce it for the government (Osuala, 2007).

Moreover, another area of control is the type of product produced and brought to the market for sale. Adebayo (1999) added that any product, drug or food must obtain approval or license from government before it is displayed or advertised for sale. Even the automobile industry is regulated as to the class of component to import, car assembly plant are allowed to import only "completely knocked down" (CKD) parts and compelled to source other parts locally. In addition to this, car importers are restricted to bring into the country model of vehicles that are above 8 years from its manufactured date. The point that is being made there is that it is difficult to find any sector of the economy that is not affected in some way by legislation. Below are some of the agencies that have been put in place to enforce government regulations as it concerns business practices.

a. Federal Trade Commission
b. Central Bank of Nigeria
c. Securities and Exchange Commission
d. National Drug Law Enforcement Agency
e. Federal Environment Protection Agency
f. National Labour Relations Board

2.4.2. Options to Solve Unemployment Problems

Restructure the Education System: There is already a welcome emphasis on technical training if the country's educational policy is anything to go by much can still be done to make fuller use of existing capacity especially in the polytechnics and government technical colleges to provide vocational and practical technological training to the citizens (Animashaun, 2007).

Enlarge Employment in Existing Establishments: Low capacity operation averaging 20-30% characterized the manufacturing sector in Nigeria for the period 1982 to the recent year. Okafor (2011) supported that industries suffered constant breakdowns as machinery barely managed to function. Raw materials inputs were not forthcoming in any desirable quantities and local substitutes were only being sourced in very small quantities. Labour was affected by retrenchments and redundancies as industries tried to contend with the exigencies of the situation (Oyebade, 2003). Against this background, the government should keep under review the level of employment in existing establishments with a view to helping them remove obstacles and enlarge opportunities.

Establish Technical Training Centers: Provision of in tech-training centers for workers and students for them to know about the latest in technology and how to handle and repair the new or modern machines would drastically curb technical unemployment (Adebayo, 1999).

Marketing and Supply Facilities: A critical factor in the success of any industrial linkage programme is the development of adequate supply and marketing systems to mediate the necessary collection and distribution of supplies. Thus local scouring of grains for flour mills may require special arrangements for involving local farmers in supply contacts or co-operative marketing arrangements (Chukwu, 1997).

Provide Socio Economic Infrastructure: On-going efforts of government to provide rural infrastructures like electricity, pipe borne water and road network has been commended. Government should intensify effort in this direction (Okafor, 2011).

Agricultural Expansion: Agriculture has since independence been reported as the main provider of employment to the citizenry (Chukwu, 1997). In view of the fact that the bulk of our working population is in agriculture; thus there is need for a review of agricultural programmes in order to make the best use of available resources by increasing productivity and output of existing farms and supporting the development of new and more viable types of agricultural enterprise capable of attracting the trained and ambitions school leavers.

Diversified Development: There have been several calls for government to evolve policies to reduce rural urban migration through diversified development. The congestion and high rate of unemployment in few industrialized cities in the country could be reduced if other cities are provided with similar infrastructure facilities.

Encourage Foreign Investment: Political instability and economic policies uncertainty has been the bane of industrialization in Nigeria as foreign investors are discouraged to come in and remain in the country. Policies geared towards attracting foreign direct investments should be formulated and implemented to reduce mass unemployment and hence result to speedy economic growth (Ajagbe et al., 2013; Ajagbe et al., 2015).

Population Policy: In the case of Nigeria, there is an urgent need to bring down the population growth rate through controlled birth policy and efficient health management systems. This will no doubt help in reducing potential labour force and lower unemployment. Although empirical literature has argued that the relationship between population growth, employment and economic growth is a complex phenomenon (NBS 2010; Oyebade, 2003; Okafor, 2011).

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 respondents in Six Geo-Political Zone of Nigeria such as North-East, North-West, North Central, South-East, South- South and South-West. Data were also collected from National Bureau of Statistics (NBS) and Central Bank of Nigeria (CBN)

3.1. The source of data instrument

A survey questionnaire was administered through a stratified random sampling to respondents which comprise the following; the public and private servant, unemployed graduate, beneficiaries of NDE, staff of NDE, and employed graduate. In Nigeria across the Six Geo-Political Zone out of 460 survey questionnaire administered to the respondents, 400 were received this indicates 86.95 percent response rate. Stratified random sampling was used in selection of the population for this study.

3.2. Pilot study

A pilot study was conducted among the stakeholders through the administered of the survey questionnaire prior to the final administered of the survey questionnaire to the stakeholders. 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 .

Table 1. Showing the characteristics of the respondents for the survey questionnaire

Respondents	*frequency*	*% frequency*
Sex:		
Male	224	56
Female	176	44
Educational Background:		
Diploma/certificate	100	25.0
Professional certificate	50	12.5
Bachelor degree/HND	130	32.5
Master degree	110	27.5
Doctoral degree	10	2.5
Stakeholders:		
Public and Private servant	40	10
Unemployed graduate	80	20
Beneficiaries of NDE	120	30
NDE Staff	100	25
Employed Graduate	60	15
Geo-Political Zone		
North-West	60	15.0
North-East	50	12.5
North Central	70	17.5
South-West	80	20.0
South-East	70	17.5
South-South	70	17.5

Table 2. Illustrating the Descriptive Statistics of the Variables

Variables	*Number*	*Mean Value*	*Standard Deviation*
Prog(Participation)	400	2.31	1.29
Prog(Benefit)	400	2.17	0.88
Prog(Equal opportunity)	400	2.21	0.93
Prog(Unemployment)	400	2.26	1.09
Prog(Reduction)	400	2.02	0.96
Prog(Job creation)	400	2.10	0.84
Prog(Benefit on merit)	400	2.01	1.02
Prog(NDE Yardstick)	400	2.00	1.42
Prog(Better result)	400	4.00	1.62
Prog(Practical approach)	400	2.10	1.09
Constr(NDE challenges)	400	4.00	1.30
Constr(Government support)	400	2.03	1.13
Constr(Political)	400	4.06	1.22
Constr(Financial)	400	4.00	1.30
Constr(Corruption)	400	4.00	1.30
Obj(SME)	400	2.01	0.73
Obj(Loan)	400	2.02	0.74
Obj(interest rate)	400	1.94	0.81
Obj(Unemployment)	400	4.04	1.18
Obj(Economy growth)	400	2.01	1.02

4.1 Results of Data Analysis from the survey questionnaire

This section provides the results of the data analysis of the survey questionnaire from the respondents.

Table 3. Showing the value of the Mean, Standard Deviation and percentage of Frequency for the NDE Programme variables

Statements	*Variables*	*Mean*	*Standard deviation*	*% Frequency*
I have participated in NDE programmes	Participation	2.31	1.29	SD=29.6 D=42.3
Many unemployed graduates have benefited from the NDE programmes	Benefit	2.17	0.88	SD=18.3 D= 59.2
NDE programmes have created equal opportunities to all and sundry	Equal opportunity	2.21	0.93	SD=18.3 D=57.7
NDE programmes have resolved unemployment issues in Nigeria	Unemployment issues	2.26	1.09	SD=21.1 D= 53.5
NDE programmes have reduced unemployment issues in Nigeria	Reduction Unemployment	2.02	0.96	SD=25.4 D=60.6
NDE have created sustainable jobs in Nigeria	Job creation	2.10	0.84	SD=19.7 D=60.6
NDE programme beneficiaries were selected on merit	Benefit on merit	2.01	1.02	SD=32.4 D=47.9
NDE is the true yard stick to finding solution to unemployment in Nigeria	NDE Yardstick	2.00	1.42	SD=29.6 D=23.9
NDE programmes should be strengthened for better results	Better Result	4.00	1.62	SA=42.3 A=19.7
NDE should be stopped and a more practical approach to job creation should be adopted	Practical Approach	2.10	1.09	SD=47.9 D=33.8

In Table 3 we show the results of the descriptive statistics on the various variables for the activities of National Directorate of employment (NDE). The finding indicate that majority of the respondents indicate that they have not participated in NDE activities. Moreover, the finding from the Table 3 indicate that the respondents believe that the unemployed graduate have not benefited from the NDE programme. This may likely due to ineffective of the implementation of the objectives, mission and vision being stated in Act that established the organisation.

Besides this, majority of the respondent believe that there are no equal opportunities, and NDE cannot resolve unemployment rate reduced and cannot create job and the selection of the beneficiaries is not based on merit. This suggests there may be collusion between the official of NDE and politician in carrying out corruption and nepotism in favour of those who are closed to them in carrying out their official duties. In addition, the respondents are strongly agreed that NDE is not a true yard stick for finding solution to unemployment in Nigeria. However, they believe that there is need to strengthen the NDE programme for better results.

Table 4. Showing the value of the Mean, Standard Deviation and percentage of Frequency for the constraint to meet objectives variables

Statements	*Variables*	*Mean*	*Standard deviation*	*% Frequency*
There are constraints militating against the success of the national directorate of employment (NDE) in Nigeria	NDE Challenges	4.00	1.30	SA=42.3 A=16.9
NDE is fully supported by government	Government support	2.03	1.13	SD=43.7 D= 33.8
The constraints faced by the NDE is Political	Political	4.06	1.22	SA=49.3 A=28.2
The Constraint faced by the NDE is financial	Financial	4.00	1.30	SA=40.8 A= 29.6
Corruption has impeded the success of NDE Programmes in Nigeria	Corruption	4.00	1.30	SA=49.3 A=22.5
NDE Programmes have strengthened small scale industry in Nigeria	SME	2.01	0.73	SD=19.7 D=64.8
NDE have given adequate loans to start up small scale businesses in Nigeria	Loan	2.02	0.74	SD=21.1 D=59.2
NDE loans and interest rate are fair	Interest Rate	1.94	0.81	SD=28.2 D-56.3
NDE has not really made a different in the rate of unemployment in Nigeria	Rate of Unemployment	4.04	1.18	SA=45.1 A=29.6
NDE has positively contributed to the growth of the Nigerian economy through job creation	Economy growth	2.01	1.02	SD=38.0 D=46.5

Table 4 presents the descriptive statistics that evaluate the constraint to meet the objectives of National Directorate of employment (NDE) programme. We find that the respondents strongly agree that there are challenges facing NDE, the programme is not fully supported by government and the constraint facing NDE are political interference, financial and corruption. However, the respondent strongly disagree that NDE Programmes have strengthened Small and Medium scale industry (SME) in Nigeria, In addition, they indicate that NDE have not adequately given Loan to Small and Medium Scale Enterprises (SMEs) and the rate of interest are not fair. There is evidence from the respondents that NDE has not really made different in the rate of employment and NDE has not contributed to the economy growth through job creation.

4.2 Result of the Data Analysis from the rate of Unemployment in Nigeria, Other African countries, USA and European countries

This section illustrate the analysis of the data on the rate of unemployment in Nigeria, other Africa countries, USA and European countries using trend analysis.

Table 5, Figure 1 and Figure 2 shows that the rate of unemployment in Nigeria was not stable from 1967 to 1998 however from 1999 to 2014 there is an increased in the rate of unemployment from 8.2 percent to 25.1 percent. This implies that the rate of unemployment increased seriously within the last fifteen years; unfortunately these are the years in which the government of Nigeria was under the full democratic government. This result suggest that although the Nigeria may not be under the military rule however it was during the military rule the National Directorate of Employment (NDE) was established with the mandate to articulate programmes that will help combat mass unemployment in the country. The failure of the NDE may like be as result of the challenges and constrains highlighted from the Table 3 and 4 shows the finding of the analysis of the data from survey questionnaire administered to the respondents.

In addition, the increased in the unemployment rate seem to be as results of the poor economy situation in the country, lack of adequate infrastructural facilities such as adequate power which lead to a situation where most of the industries in Nigeria foiled up. During the President Olusegun Obasanjo administration in 2001 the Federal Government introduced National Poverty Eradication Programme (NAPEP) which has the same mission and vision as NDE still there was nothing to show from this programme. During the President Goodluck Jonathan administration the Federal Government introduced Subsidy Reinvestment and Empowerment Programme (SURE-P) in 2012 in order to solve unemployment at the end of his tenure there was nothing to show, the rate of unemployment is still high.

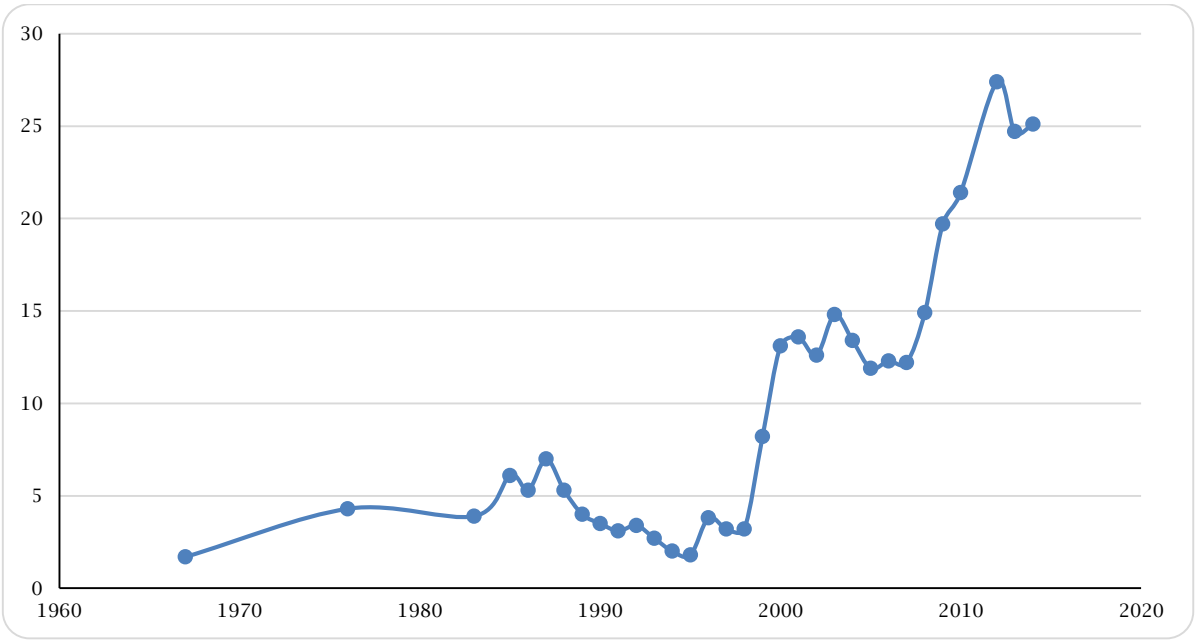
In some selected Africa countries the Table 6 below shows the rate of unemployment in those countries

Table 5. Illustrate the Unemployment Rate from 1967 – 2014 in Nigeria

Year	*Unemployment Rate (%)*
1967	1.7
1976	4.3
1983	3.9
1985	6.1
1986	5.3
1987	7.0
1988	5.3
1989	4.0
1990	3.5
1991	3.1
1992	3.4
1993	2.7
1994	2.0
1995	1.8
1996	3.8
1997	3.2
1998	3.2
1999	8.2
2000	13.1
2001	13.6
2002	12.6
2003	14.8
2004	13.4
2005	11.9
2006	12.3
2007	12.2
2008	14.9
2009	19.7
2010	21.4
2012	27.4
2013	24.7
2014	25.1

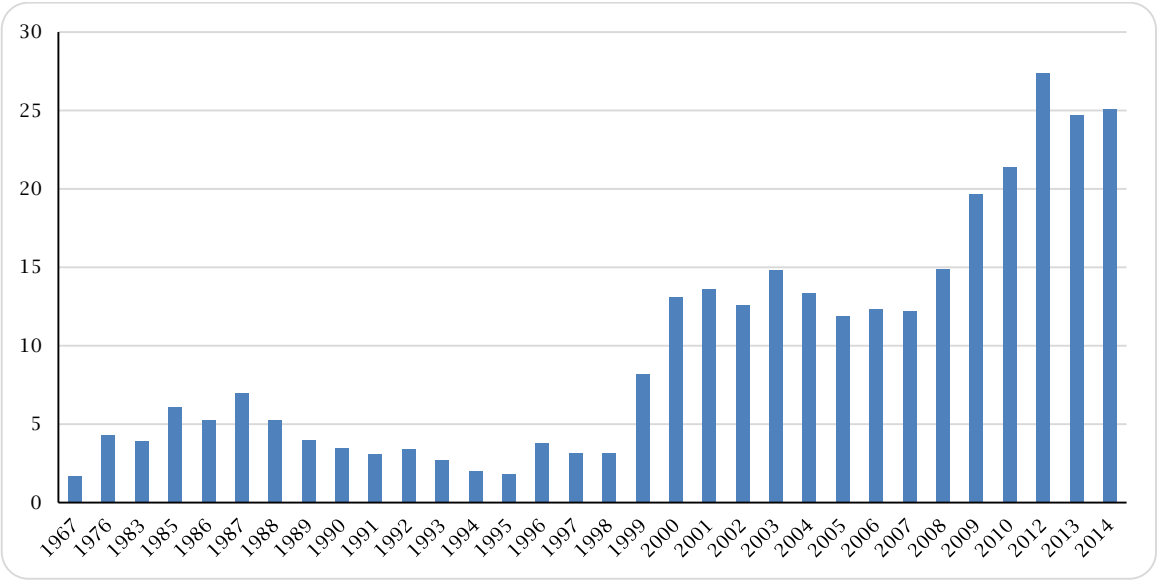
Source: National Bureau of Statistics

Figure 1. Unemployment rate (%)



Source: National Bureau of Statistics

Figure 2. Unemployment rate (%)



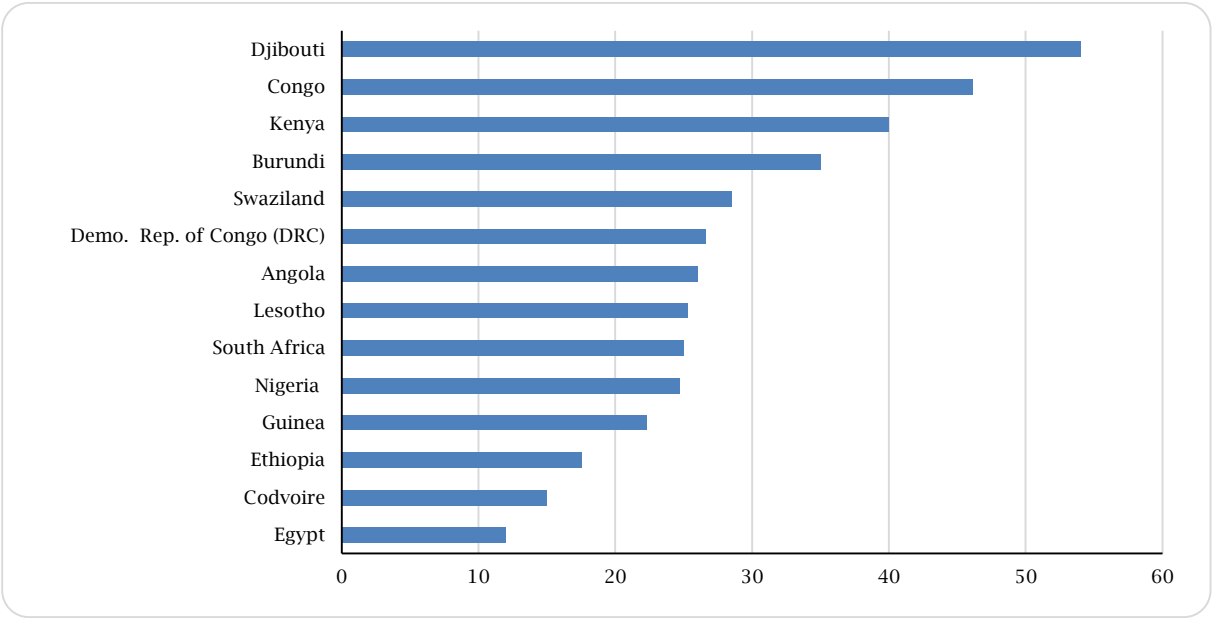
Source: National Bureau of Statistics

Table 6. Indicate Recent Unemployment Rate in Africa Countries

Country	***Unemployment Rate (%)***
Egypt	12.0
Cote D'Ivoire	15.0
Ethiopia	17.5
Guinea	22.3
Nigeria	24.7
South Africa	25.0
Lesotho	25.3
Angola	26.0
Demo. Rep. of Congo (DRC)	26.6
Swaziland	28.5
Burundi	35.0
Kenya	40.0
Congo	46.1
Djibouti	54.0

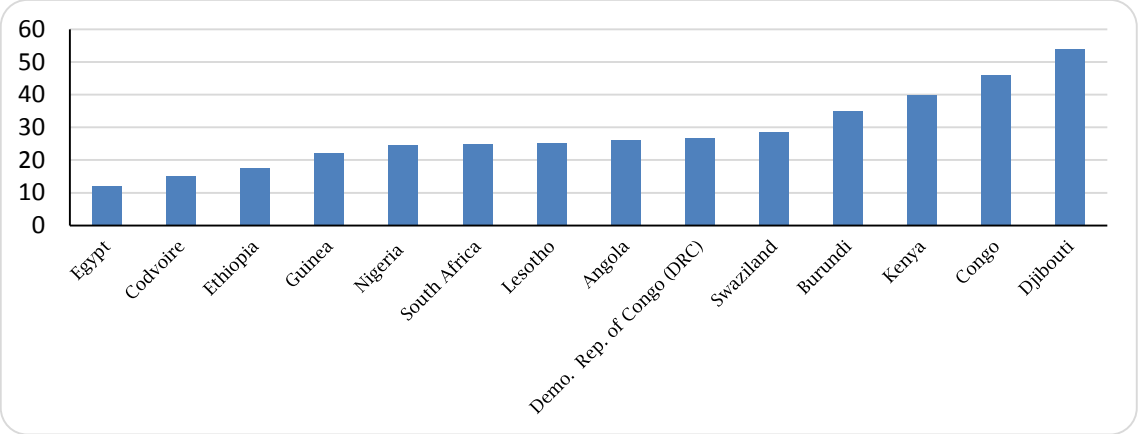
Source: National Bureau of Statistics

Figure 3. Recent Unemployment Rate in Africa (%)



Source: National Bureau of Statistics

Figure 4. Recent Unemployment Rate in Africa (%)



Source: National Bureau of Statistics

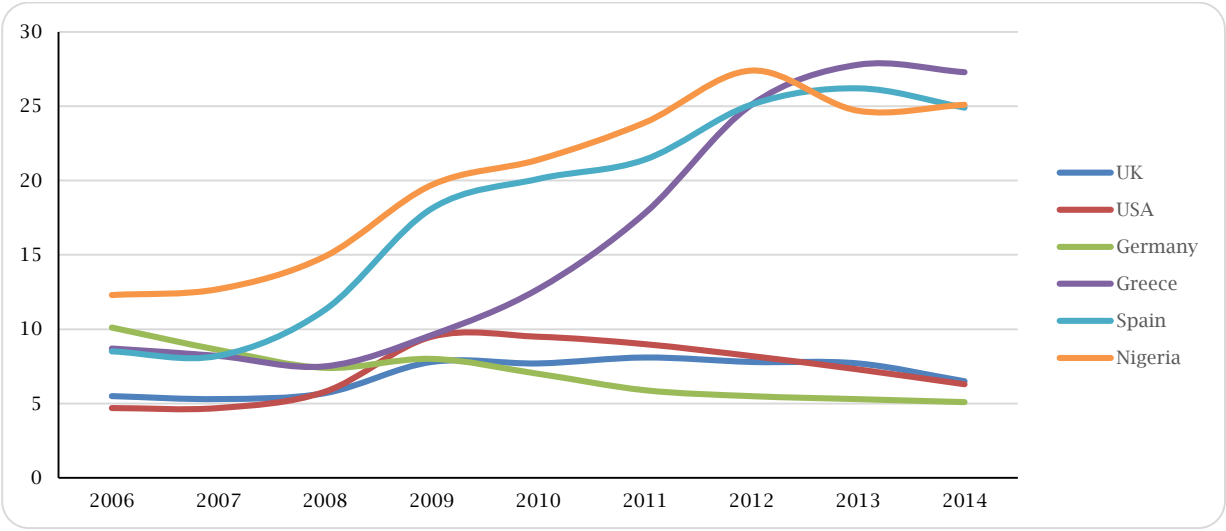
Table 6, Figure 3 and Figure 4 illustrate the trend in rate of unemployment in some selected Africa countries, there is evidence that the rate of unemployment in Africa countries is high. Thus in comparing with Nigeria it is obvious that only Egypt, Cote D'lvoire, Ethiopia and Guinea that have a lower percent. This indicates that in Africa countries these countries may have lower rate of unemployment but their economy may not better than Nigeria. However, South Africa which is one of the strongest economies in the continent has nearly the same unemployment rate with Nigeria.

Table 7. Comparing Unemployment Rate in Nigeria with USA and European Countries

Country	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
UK	5.5	5.3	5.7	7.8	7.7	8.1	7.8	7.7	6.5
USA	4.7	4.7	5.8	9.5	9.5	9.0	8.2	7.3	6.3
Germany	10.1	8.6	7.4	8.0	7.0	5.9	5.5	5.3	5.1
Greece	8.7	8.2	7.5	9.6	12.7	17.8	25.1	27.8	27.3
Spain	8.5	8.2	11.3	18.1	20.1	21.4	25.1	26.2	24.9
Nigeria	12.3	12.7	14.9	19.7	21.4	23.9	27.4	24.7	25.1

Sources: Central Bank of Nigeria

Figure 5. Comparing Unemplyment rate in Nigeria with USA and European countries



Sources: Central Bank of Nigeria

Table 7 and Figure 5 provide the evidence for comparing the rate of unemployment in Nigeria with USA, and some selected European countries. The result shows that on the average from 2006 to 2014 Nigeria has the highest Unemployment rate. Thus the finding of trend analysis indicates that from 2009 to 2014 the average unemployment rate for Spain is just a bit lower than Nigeria. However, the average unemployment rate for Greece is a bit higher than Nigeria. This result suggest that the issue of unemployment is a global challenges in particular European countries such as Spain and Greece where there they are presently in economy down turn.

5. CONCLUSION

This paper contributes a number of insights by using survey questionnaire to examine the activities of the National Directorate of Employment (NDE). Based on the finding from the respondents, there is indication that many unemployed youth does not have the opportunity to participate in the NDE programme. Beside this, the result show that the NDE programme has not create equal opportunity, NDE programme have not solved unemployment crisis, NDE have not created sustainable jobs and NDE should be strengthened for better results.

Moreover, the respondents believe that there are constrain militating against the success of the NDE this includes; lack of government support, political interference, financial constrain, corruption, lack of assistant to SME, lack of adequate loan with high interest rate and NDE has not contribute to economy growth of Nigeria. This finding suggest that National Directorate of Employment need to be re-organised with support of the government in order to be able to performed effectively so as to meet the objective and the mission of the organisation.

In addition, the results of the trend analysis show that from 1967 to 1998 unemployment rate was not stable but in 1985 to 1987 during the structural adjustment programme of President Ibrahim Babaginda the rate of Unemployment show a higher increased in compared with 1967 to 1983 rate of unemployment . However, from 1988 to 1998 there was a lower rate of unemployment. From 1999 to 2014 the rate of unemployment increases skyrocketly when compared to the previous year such as 1967 to 1998 rate of unemployment. In recent times the Federal Government has introduced programmes such as NAPEP and SURE-P in order to reducing the rate of unemployment unfortunately there is no evidence of improvement in reducing the rate of unemployment in Nigeria.

Globally, we compared the rate of unemployment across selected Africa countries, USA and selected European countries. We observed that the rate of unemployment in Africa countries is very high and on the average rate of unemployment in European countries such as Spain is a bit lower than Nigeria average rate of unemployment; however on the average rate of unemployment Greece has a higher rate of unemployment than Nigeria. This evidence indicates that rate of unemployment is a global issue.

6. RECOMMENDATION

Based on the finding of this study we recommend that the National Directorate of Employment (NDE) may not able to solve the issue of unemployment alone. There is need for each of the State in Nigeria to contribute their own part in solving unemployment in Nigeria. In addition, the Federal government need to strengthen the programme of National Directorate of Employment (NDE) across the state in Nigeria. This can be carried out by providing more funds to the organisation and caution the politician to stop interferes with the activities of NDE. We find that the issue of unemployment is a global issue. As a result, the Federal Government should lay more emphasis on entrepreneurship programme in the higher institution of learning in Nigeria. Finally, the Federal government need to improve our infrastructure such as power in order to facilitate the entrepreneurship and large scale of industries in Nigeria

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DO BIG 4 AUDITORS IMPROVE THE ABILITY OF GOODWILL TO FORECAST FUTURE CASH FLOWS? THE MALAYSIAN EVIDENCE

Ahmad Al-Hiyari, Rohaida Abdul Latif, Noor Afza Amran*

* School of Accountancy, Universiti Utara Malaysia, Sintok, Kedah,Malaysia

Abstract

The accounting rules prescribed in Financial Reporting Standard (FRS) 136, Impairment of Assets, give managers considerable reporting discretion in allocating acquired goodwill and estimating its actual value. Agency theory predicts that managers will use the accounting discretion granted by the new rules to pursue their own interests at the expense of shareholders. Hence, auditors are required to exercise professional judgement when investigating hard-to-verify management assumptions and valuations. We exploit this issue by examining whether predictive ability of goodwill improved in the presence of Big 4 auditors. We provide evidence that goodwill has a significant predictive ability for second and third-year ahead cash flows only in the firms audited by the large international reputable accounting firms. This suggests that Big 4 auditors play an important role in ensuring appropriate implementation of the present accounting for goodwill.

Keywords: Audit Quality, Emerging Markets, Goodwill Impairment, Cash Generating Units, Fair Values, Recoverable Amount, Value In Use

1. INTRODUCTION

Audited annual reports represent major inputs used by shareholders, creditors, and others to evaluate firm's financial performance and to make proper business decisions. The quality of auditing, and its ability to ensure credible financial reporting plays an important role in minimizing information asymmetry and boosting shareholders confidence in any stock market (Becker, Defond, Jiambalvo, & Subramanyam, 1998; Khlif & Samaha, 2013). However, the collapse of Arthur Andersen in conjunction with other highly publicized audit failures has attracted widespread criticisms about the quality of audits by external auditors. In East Asian countries, this issue has been controversial ever since the Asian financial crisis, when the World Bank questioned the appropriateness of services supplied by the Big N audit firms (Johl, Jubb, & Houghton, 2007). The main question lie in this controversy: Are the Big N firms able to provide higher quality audit services compared to that of other accounting firms? This paper addresses this question by examining whether the ability of goodwill to forecast future cash flows is enhanced in the presence of Big N auditors, within the context of a unique emerging market, Malaysia.

The Malaysian setting provides very unique research advantages. Malaysia is a multiracial country (Mustapha & Che-Ahmad, 2011), and is grouped among common-law countries, with weak enforcement of accounting standards (Muniandy & Ali, 2012), and low level of audit quality (Ali, Haniffa, & Hudaib, 2006). This contrasts with other common law countries such as the United kingdom, wherein more rigorous mechanisms to enforce the application of accounting standards are in place (Ball, Robin, & Wu, 2003; Johl et al., 2007). Perhaps a more critical feature in the Malaysian capital market is that, minority of shareholders are exposed to risk of wealth expropriation activities by controlling shareholders (Hashim & Devi, 2008). This is because, there is a high level of ownership concentration, and wide prevalence of family dominated business (Amran & Ahmad, 2010; Chen, 2013; Hasnan et al., 2013). Thus, the fundamental agency problem in Malaysian companies arises from the conflict between dominating shareholders and minority shareholders (Salim, 2006). On the other hand, the agency problem in the Western countries is rooted mainly in the conflict between dispersed small shareholders and professional managers (Enriques & Volpin, 2007).

Additionally, the Malaysian stock market is characterized by a lack of active and liquid markets for numerous types of asset (Carlin, Finch, & Laili, 2009a). As such, managers relied largely on Value in Use (VIU) method to estimate the recoverable amounts of Cash Generating Units (CGUs) (Carlin et al., 2009a). Hence, they have more opportunity to report accounting amounts more for private interests than to reflect the true economic events affecting the firms (Landsman, 2007). These institutional settings enable the study to provide useful implications for both theory and practice in Malaysia and other emerging markets.

We focus on goodwill for many considerations. First, unlike other assets of the business, goodwill

can only be sold or purchased as part of a firm or as a whole. Hence, it cannot be sold separately (Henderson, Peirson, & Herbohn, 2008). Second, goodwill is an economically significant asset. It represents about 5 per cent of Malaysian listed firms' assets between 2010 and 2011[1]. Finally, the present accounting for goodwill increases the opportunities for deliberate manipulation of earnings (Massoud & Raiborn, 2003). For example, determining the recoverable amount of Cash Generating Units (CGUs) containing goodwill relied heavily on management's future behaviours, including managers' insight and execution of corporate strategy (Ramanna & Watts, 2012). As a result, managers can overstate (understate) the true extent of goodwill impairments by distorting the inputs used in discounted cash flows analysis (DCF) to extract rents from shareholders (Wines, Dagwell, & Windsor, 2007). Hence, agency theory predicts that managers will exploit the flexibility inherent in goodwill accounting under IFRS to pursue their private interests in the opportunistic sense (Ramanna & Watts, 2012). These issues provide an excellent laboratory to study whether goodwill, as attested by the Big 4 auditors has higher explanatory power and predictive ability than those by other auditors.

In view of the above, we assume that the Big 4 auditors have more ability, knowledge, and expertise in enforcing the application of accounting standards that require much of discretion to be exercised by managers, than non-Big 4 auditors. We also expect that the goodwill of the Big 4 clients exhibits more predictive ability for future cash flows than those of the non-Big 4 clients. Consistent with our expectation, we find evidence that goodwill possessed significant predictive power for second and third-year-ahead cash flows, but only in the presence of the Big 4 auditors. This suggests that larger offices of Big 4 auditors allow for better implementation of the present goodwill accounting under Malaysian Financial Reporting Standards (MFRSs). Our results are robust even when we control for the potential endogeneity arising from auditor choice with respect to client selection, and when all continuous variables are deflated by total assets.

Furthermore, the present study adds to the accounting literature in numerous ways. First, evidence is presented showing that, the predictive power of goodwill for next period cash flows is improved in the presence of the Big 4 auditors. To the best of our knowledge, our paper is the first empirical study to document such evidence. By demonstrating this evidence, we extend the stream of research indicating that the Big 4 auditors have superior ability to enforce high quality financial reporting over that of other auditors (e.g., Eshleman & Guo, 2014; Francis, Maydew, & Sparks, 1999; Francis & Wang, 2008). Second, we add to accounting literature by focusing on equity capital market in Malaysia. Because of the unique Malaysian institutional environment, our findings should be of interest to policy makers, financial analysts, shareholders, and other users of financial statements.

The reminder of this study is proceeds as follows. In Section 2.0, describes the goodwill reporting in Malaysia. We reported the literature and developed our main hypothesis in Section 3.0. We then illustrated the study design and the sample in Section 4.0. Additionally, we presented the results and analysis in Section 5.0. Our implications and conclusion is reported in Section 6.0.

2. GOODWILL REPORTING IN MALAYSIA

Accounting for goodwill has been historically contentious issue in financial reporting for decades. In Malaysia prior to 2006, there were no mandatory financial standards to govern the reporting of goodwill (Carlin et al., 2009a). Indeed, the prevalence of lobbying activities from influential parties over accounting for goodwill were resulted in a failure to issue an effective standard with respect to this asset (Susela, 1999). Not surprising then, various accounting treatments were used by firms to deal with goodwill. These treatments ranged from capitalisation of goodwill as a permeants asset to immediate write off against reserves in the date of business combination (Susela, 1999). As firms were free to choose the accounting practice with respect to this asset, consistency and comparability were poor (Carlin et al., 2009a).

On January 1st 2006, all Malaysian listed firms have been required to prepare and present the statutory financial reports in accordance with Financial Reporting Standards (FRSs) adopted by the Malaysian Accounting Standard Board (MASB) (Carlin et al., 2009a). In essence, the approved accounting standards adopted by MASB were identical those of the International Financial reporting standards (IFRSs) issued by the International Accounting Standards Board (IASB). As a result of the adoption of IFRSs, firms must account for goodwill using accounting requirements included in FRS 136, *Impairment of Assets*, and FRS 3, *Business Combinations*.

The new standards required all business acquisition transactions to be accounted by employing the purchase method, which is now known as acquisition method, and changed the reporting of goodwill from the systematic amortisation to a method relied solely on impairment reviewing. The purchase method illustrated in FRS 3 indicated that goodwill is recognised as an asset with indefinite life if the amount paid by the buyer exceeds the actual fair value of the identifiable assets acquired and liabilities assumed (FRS 3, para. 32).

Subsequently, goodwill must be allocated to cash generating units (CGUs) that are expected to take advantage of synergies (FRS 136, para. 80). Manager is then required to test each of CGU containing goodwill, at least annually (FRS 136, para. 10). This can be accomplished by comparing the recoverable amount CGU with its carrying amount (FRS 136, para. 10). If the result of this test indicates that the carrying amount of CGU exceeds its recoverable amount, then an impairment charges should be recognised. Otherwise, managers can conclude the impairment loss has not occurred (FRS 136, para. 59). It is important to note that there are two choices available for managers to determine the recoverable amount of CGUs containing goodwill,

namely, fair value less costs to sell and value in use. Value in use is defined as the present value of the benefits derived from acquired goodwill (Ernst & Young, 2013).

The primary objective of the goodwill accounting under IFRS is to better reflect the underlying economic conditions of this asset (KPMG, 2014). Nevertheless, as discussed earlier, FRS 136 gives managers substantial flexibilities to engage in opportunistic earnings management (Filip, Jeanjean, & Paugam, 2015). Hence, auditors play a pivotal role in ensuring that managers actually behave in line with the interests of shareholders.

3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

An auditor is an independent person who is entitled under the law to review and report the weaknesses in the financial records, accounting information system and internal control through high quality audit services to clients (Dandago & Zamro, 2013). The idea that audit quality is not independent of audit firm size can be traced back to the seminal work of DeAngelo (1981), who suggest that large audit firms with a multiple clients have "more to lose" by failing to supply a high-quality audit. This is because a failure to discover any violation in particular client's financial statement may cause the auditor to lose significant investment in reputation, capital, termination by other clients, and decreased audit fees.

Subsequently, various academics opined that Big N auditors supply differential audit quality over that of other auditors (Lawrence, Minutti-Meza, & Zhang, 2011). Big N firms have a significant market share (Thoopsamut & Jaikengkit, 2009), work by means of network of semi-autonomous practice offices and have decentralized offices (Francis & Yu, 2009). These attributes may alleviate the information asymmetry and enable Big N to cultivate favourable knowledge about existing and potential clients (Francis & Yu, 2009). In addition, Big N firms devote more resources to training programs. As a result, they have better trained auditors (Eshleman & Guo, 2014). Thus, it comes as no surprise that Big N auditors have more in-depth experience, and knowledge in reviewing public companies, which would in turn improve their ability to discover and record material misstatements in the financial reports (Francis & Yu, 2009; Krishnan, 2003).

Big N firms are also more risk averse (Lai, 2013), and sensitive to the cost of client misstatements (Francis & Wang, 2008). This is because they are more adversely affected than non-Big firms by unfavourable events that lead to loss in reputation (Krishnan, 2003).For example, the Big 4 firms are likely to be prosecuted if they fail to discover any misstatements in financial reports (Becker et al., 1998; Khurana & Raman, 2004). Hence, the Big N auditors are most assuredly independent (Becker et al., 1998). Particularly, they are inclined, capable and well-positioned to challenge the wishes of management in order to shield their reputation (DeFond & Jiambalvo, 1993). On the other hand, non-Big N auditors are more susceptible to agree with managements in order to avoid dismissal since they have less to lose (Francis & Wang, 2008; Lai, 2013).

In supporting the above lines of thought, various studies agree that Big N firms are better in mitigating earnings management in relation to other firms. Defond and Jiambalvo (1991) show evidence that clients of Big N accounting firms have minor errors and irregularities than clients of non-Big N accounting firms. Empirical evidence also shows that clients of companies audited by Big N accounting firms have fewer magnitudes of discretionary accruals and less level of earnings management. This suggests that Big N accounting firms provide higher audit quality than non-Big Six firms (Becker et al., 1998; Francis et al., 1999; Francis & Yu, 2009; Krishnan, 2003).

Francis and Wang (2008) showed evidence that Big N auditors add value to the quality of client firms' earnings, but only when shareholder protection is rigorous. They also concluded that Big N auditors are more sensitive than other auditors to the consequences of managerial opportunisms in countries with strong shareholder protection. Eshleman Guo (2014) documented that after firms audited by Big N firms are less prone than other firms to issue accounting restatements.

Prior research also shows that Big N firms are less likely than other firms to agree with managements and to issue unclean opinions. For example, DeFond and Jiambalvo (1993) found that auditor-client disagreements arising from managerial agency-based motives to manipulate earnings are more likely to take place in firms audited by Big N firms. Also, Lai (2013) reported that the likelihood of issuing going-concern modified opinions or restricting the estimated degree of discretionary accruals to former Andersen clients is higher for Big N firms than non-Big firms. His study suggests that Big 4 firms are more interested in avoiding litigation thread than other firms.

Another stream of research indicates that users' confidence in financial statements improved in firms audited by Big N auditors. For instance, Teoh & Wong (1993) demonstrated that earnings response coefficients are larger in clients audited by Big N auditors than other auditors. Lee and Lee (2013) also noted that the shareholders place more valuation weight to earnings and book value of Big N clients relative to non-Big N ones. Choi and Lee (2014), and Khurana and Raman (2004) opined that clients of Big N auditors are associated with lower cost of equity capital than clients of other auditors. In addition, Behn, Choi, and Rang (2007) report a higher analysts' earnings forecast accuracy and a smaller forecast dispersion for clients audited by Big N clients compared to the clients audited by non-Big 4 firms.

Notwithstanding the submissions of the above empirical underpinnings, some recent research have suggested that audit work delivered by Big 4 auditors is not conspicuously different from those of non-Big N firms (Boone, Khurana, & Raman, 2010; Campa, 2013). After controlling for potential endogenous auditor choices which existed in client selection, Lawrence, Minutti-Meza, and Zhang (2011) provide evidence that firms audited by Big N

firms exhibit comparable audit quality in comparison to non-Big N firms as proxied by discretionary accruals, cost-of-equity capital, and analyst forecast accuracy. They conclude that the difference between Big and non-Big N firms with respect to audit quality is a mere reflection of clients' characteristics. This is consistent with the notion that Big N auditors often serve large firms that are under greater political cost; have good governance in place, and devote more resources to develop a better accounting system (Campa, 2013).

In Malaysia, prior research on the Big 4 and non-Big 4 firms is largely inconclusive. For example, Carlin, Finch, and Laili (2009) show evidence of poor compliance with the requirements of FRS 136, *Impairment of Assets*, by Malaysian firms whose financial statements were audited by the Big 4 auditors. They concluded that the Big 4 firms do not add value to the accurate representation of goodwill. On the other hands, Johl *et al.* (2007) utilize matched paired sample of companies listed on Bursa Malaysia between 1994 and 1999. They found that the magnitude and level of unexpected accruals is positively related to qualified audit opinions in the presence of Big N audit firms.

Consequently, there is a long-standing debate and controversy about whether Big N accounting firms render high quality audit services. The goal of this paper therefore is to investigate whether goodwill of firms attested by Big 4 auditors better predicts firms' future cash flows. To the extent that the presence of Big 4 auditors improves the quality of goodwill reporting, we hypothesize that:

Hypothesis 1 (H1): Ceteris paribus, the ability of goodwill to forecast cash flows enhanced in the presence of the Big 4 auditors.

4. RESEARCH DESIGN

4.1 Empirical models

Consistent with Lee (2011), we construct equation (1) to test the relationship between goodwill and firm's future cash flows.

$$OCF_{it} = \beta_0 + \beta_1 EARN + \beta_2 BVWG + \beta_3 GWILL + \beta_4 \sum YEAR + \beta_5 \sum INDUSTRY + error \quad (1)$$

Where, OCF_{it} represents cash flow from operations for firm *i* in year *t*. we consider three years forecast horizons: *t*+1, *t*+2, *t*+3. EARN stand for net income reported by firm *i's* at year *t*. BVWG denotes firm *i's* book value of equity excluding goodwill; GWILL is firm *i's* recorded goodwill. We include year dummy to control for exogenous macro-economic shocks (Cazavan-Jeny, Jeanjean, & Joos, 2011). We also include many industry dummies to account for industry effects. Similar to Jarva (2009), all continuous variables are deflated by market capitalisation at the end of the year. The use of total assets may not be suitable as a deflector because there is a high correlation between total assets and reported goodwill. This in turn can increase the amount of bias in the estimated regression coefficients (Lee, 2011). Nevertheless, we used total assets as an alternative deflator in the robustness check to ascertain the stability of our conclusion.

Additionally, to examine whether goodwill is more predictable in the presence of the Big 4 auditors, we introduced a dummy variable called BIG 4 which is equal to one of the annual report of firm *i's* is attested by the Big 4 auditors (Ernst & Young, Deloitte, Ernst & Young, and PricewaterhouseCoopers), and zero otherwise. Then, we create interaction term between variable BIG 4 with GWILL. If the Big 4 auditors improve the predictability of goodwill, then significant coefficient on the interaction term between BIG 4×GWILL would be observed. Therefore, our next equation is:

$$OCF_{it} = \beta_0 + \beta_1 EARN + \beta_2 BVWG + \beta_3 GWILL + \beta_4 BIG4 + \beta B_5 BIG4 \times GWILL + \beta_6 \sum YEAR + \beta_7 \sum INDUSTRY + error \quad (2)$$

4.2. Sample selection and industry classification

The data used in the regression analysis are obtained from two sources. First, the financial data are gathered from Thomson DataStream. Second, the data about Big 4 auditors is hand-collected from annual reports. As shown in Table 3.1, we start our sample selection procedures by identifying all Malaysian firms listed on the Main and ACE markets of Bursa Malaysia from 2011 to 2012. This procedure resulted in 1,898firm-year observations. Out of these 1,898 observations, 1,046 are eliminated because they do not have positive ending goodwill balance. The sample is further reduced by eliminating 43 firm-year observations belonging in financial industries because of their special account structures. We then excluded 81 firm–years observations due to missing data. Consistent with the prior research (e.g., Ahmed, Morton, & Schaefer, 2000), two observations are excluded because they have negative book value of equity. Based on these common procedures, the final sample included in the empirical analysis consists of 726 firm-year observations.

Table 3.2. shows the distribution the sample firms by sector. As shown, the sector with the highest prevalence in our sample is trading and services (30.72%) with 223 observations. This is followed by industrial products (26.31%) with 191 observations; customer products (14.05%), with 102 observations; property development (10.33%) with 76 observations; technology (8.40%) with 61 observations; plantation (5.23) with 38 observations; and construction (4.96%) with 36 observations.

Table 3.1. Sample selection process

	Firm-year observations
All firms listed on the Main and ACE markets	1,898
Less observations that have zero goodwill balance	(1,046)
Less observations falling in the financial sector	(43)
less observations with insufficient/missing data	(81)
less observations with negative book value of equity	(2)
Final sample	726

Table 3.2. Sample classification by sector

Industry	***Number of observations***	***Percentage of total sample***
Construction	36	4.96
Customer Products	102	14.05
Industrial Products	191	26.31
Plantation	38	5.23
Property Development	75	10.33
Technology	61	8.40
Trading and Services	223	30.72
Total	726	100%

5. EMPIRICAL RESULTS

5.1 Univariate results

Table 4.1 shows the descriptive statistics for the Big 4 and non-Big 4 clients on an un-scaled basis, as well as the percentage of firm's market values. The two columns to the right display the average and median differences between the two subsamples for each of continuous variable employing parametric two-tailed t-test and nonparametric Wilcoxon Mann–Whitney test, respectively. Inconsistent with studies carried in Western countries (e.g., Khurana & Raman, 2004), the table show a fairly even distribution of the sample across the two sample groups, with 52% of client firms audited by Big 4 auditors.

As shown in Table 4.1, the mean and median of GWILL reported by Big 4 clients was greater than that reported by non-Big 4 clients. The mean and median of GWILL for Big 4 clients were RM142,002,000 and RM11,487,000 respectively, while the mean and median for non-Big 4 clients' firms were RM49,259,000 and RM5,217,000 respectively. The mean of GWILL represents 12.0% and 18.4% of market value of equity for the two sample groups, respectively. This indicates that goodwill is economically significant for both Big 4 and non-Big 4 clients.

The results on BVWG show that Big 4 clients experienced better growth opportunities than non-Big N clients, captured in a significantly lower mean and median for scaled BVWG. The average (median) BVWG for Big 4 clients is 1.319 (1.116) compared with 1.526 (1.347) for non-Big 4 clients. In addition, the mean and median of scaled EARN for Big 4 clients were 6.90 and (7.60) respectively versus -0.50 and 6.90 respectively for non-Big 4 clients. Finally, the magnitude of OCF is significantly larger in Big 4 clients than non-Big 4 clients during the three-year horizons.

Table 4.1. Descriptive statistics (N = 727)

Panel A: Unscaled								
	BIG 4 Clients, N = 378			***Non-Big 4 Clients, N = 348***			***p-values***	
Variables	Mean RM000	Median RM000	SD RM000	Mean RM000	Median RM000	SD RM000	*t*-test	W-test
OCF_{it+1}	254,824	26,444	813770	48,088	7,855	277226	.000***	.000***
OCF_{it+2}	240,387	34,688	755231	48,429	7,875	272808	.000***	.000***
OCF_{it+3}	245,167	38,549	739167	51,991	7,684	312499	.000***	.000***
EARN	151,074	27,754	405585	35,123	5,518	212513	.000***	.000***
BVWG	1,523,546	353,300	3726473	373,533	117,101	1456808	.000***	.000***
GWILL	142,002	11,487	597237	49,259	5,217	341909	.010***	.000***
Panel B: Scaled by total market capitalisation								
	BIG 4 Clients, N = 378			***Non-Big 4 Clients, N = 348***			***p-values***	
	Mean	Median	SD	Mean	Median	SD	*t*-test	W-test
OCF_{it+1}	0.122	0.092	0.207	0.115	0.105	0.351	.750	.181
OCF_{it+2}	0.126	0.096	0.281	0.097	0.094	0.355	.239	.882
OCF_{it+3}	0.147	0.107	0.342	0.079	0.074	0.399	.015**	.075*
EARN	0.069	0.076	0.137	-0.005	0.069	0.494	.007***	.102
BVWG	1.319	1.116	0.950	1.526	1.347	1.130	.008***	.007***
GWILL	0.120	0.026	0.229	0.184	0.050	0.401	.009***	.001***

Notes:

1. Variable definitions: OCF is cash flows generated from firm i's operations Scaled by firms' market value; EARN is firm i's reported net income Scaled by firms' market value; BVWG is firm i's adjusted book value of equity Scaled by firms' market value; GWILL is firm i's reported goodwill Scaled by firms' market value; Big 4 is dummy variable equal to one if the annual report of firm i's is attested by Big 4 accounting firms (Deloitte, Ernst & Young, Ernst & Young, and PricewaterhouseCoopers), and zero otherwise.

*2. *, **, ***, significant at the threshold of 10%, 5% and 1%, respectively*

Table 4.2 provides the coefficients of Pearson correlation for the variables incorporated in the regression models. Although there are some of significant correlation between the explanatory variables, but the amount of the correlation coefficients do not exceed the threshold 0.8 (Studenmund, 2005). Furthermore, the Variance Inflation Factors (VIF) (not reported) estimated after the regression analysis ranges from 2.39 to 1.10. This suggests that the absence of multicollinearity problem (Chao & Horng, 2013).

Table 4.2. Pearson correlation coefficients between variables

	EARN	*BVWG*	*GWILL*	*BIG 4*	*BIG 4×GWILL*
EARN	1.0000				
BVWG	0.1307***	1.000			
GWILL	-0.1418***	0.1405***	1.0000		
BIG 4	0.1075***	-0.1133***	-0.0948**	1.0000	
BIG 4×GWILL	-0.0729**	0.0076	0.5557***	0.3483***	1.0000

Note: Variables definitions are provided in Table 4.1.

5.2. Multivariate results

Table 4.3 displays the estimated results of ordinary-least squares (OLS) regressions used to test our hypothesis. The adjusted R^2 ranges from 12.37% to 4.16% and the F-Statistic of the regression models is significant 1% level. This suggests that the regression analyses exhibit reasonable goodness-of-fit for the observed sample data. We winsorize all non-dichotomous variables at 1st and 99th percentiles to alleviate the adverse effect of abnormal observations on the regression results. We also perform the Huber-White robust standard errors to adjust for potential heteroscedasticity.

As shown in Table 4.3, regression Model (1), Model (2), and Model (3) examine the association between goodwill and firm's future cash flows over three year forecast horizon, respectively. Consistent with our expectations, the regression results demonstrate that the coefficients of earnings (EARN) are positively and significantly associated with firm's future cash flows for one, and third-year cash flows (β =0.197; p-value = 0.010, β = 0.266; p-value = 0.013), and marginally significant for second-year cash flows (β = 0.203; p-value = 0.068). This significant results for EARN confirms the notion that earnings is vital components in predicting firm's future cash flows (Barth, Cram, & Nelson, 2001).

Consistent with Lee (2011), we find evidence that the estimated coefficients on book value of equity (BVWG) is strongly and positively significant in all regression models, irrespective of the forecast horizon (β = 0.049; p-value = 0.000, β = 0.038; p-value = 0.006, and β = 0.057; p-value = 0.001 or the one, second, and third-year-ahead cash flows, respectively). This suggests that the amounts of residuals available to common shareholders are associated with the generation of future cash flows.

The main experimental variable in our study is the interaction term between GWILL and BIG 4. Models (4), (5), and (6) test whether the relationship between goodwill and future cash flows is enhanced in the in presence of Big 4 auditors for the one, second- and third-year future cash flows, respectively. In Model (1), we discover that the estimated coefficient on the interaction term between GWILL×BIG 4 is insignificant (β = .061; p-value = 0.426). This insignificant finding suggests that Big 4 firms do not provide incremental contribution to the predictability of goodwill over one year forecast horizon. However, the results of Models (5) and Model (6) demonstrate that the estimated coefficients on the interaction term *BIG 4×GWILL* are statistically significant for the second-year (β = .210; p-value = 0.034), and the third-year-ahead cash flows (β = 0.398; p-value = 0.002). This suggests that goodwill have more predictive ability for future cash flows in the presence of Big 4 auditors.

5.3. Robustness tests

In order to address the issue of endogeneity in the choice of the firm's auditor, we performed robustness tests. We also explored whether the results of regression analyses are consistent after replacing market value of equity as a deflator by lagged total assets.

4.3.1. Endogeneity choice of the firm's auditor

Prior research indicates that auditor's decision to select clients is endogenous, because client firms are not randomly allocated to Big N auditors and other auditors (Azizkhani, Monroe, & Shailer, 2010). For example, Big N auditors may tend to accept less risky clients with effective corporate governance structure (Campa, 2013; Eshleman & Guo, 2014). Thus, the auditor self-selection bias may lead to inaccurate results in the classical OLS regression(Chaney, Jeter, & Shivakumar, 2004).

Consistent with Azizkhani *et al.* (2010), Eshleman and Guo (2014), and Krishnan (2003), we employed two-stage analysis to correct for self-selection. For the first stage, we seek to include some of the explanatory variables influencing the auditor–client choice. We adopted the model employed by Azizkhani *et al.* (2010) estimate auditor-selection model. The estimates from the first stage are then employed to calculate the inverse Mills ratio (IMR) for each of the sample observations. In the second stage, we include the inverse Mills ratio as further control variable. Untabulated OLS regression findings (available upon request) are qualitatively similar to the findings reported in Table 4.3.

4.3.2. Alternative deflator

We re-estimate the models by deflating all continuous variables by total assets. The results obtained from regression analyses are in line with the previous findings. Overall, it can be concluded that our estimated regression findings are robust to alternative model specification.

Table 4.3. Multivariate analysis of the association between goodwill and future cash flows

	Model 1 ***(OCF_{t+1})***	***Model*** 2 ***(OCF_{t+2})***	***Model*** 3 ***(OCF_{t+3})***	***Model*** 4 ***(OCF_{t+1})***	***Model*** 5 ***(OCF_{t+2})***	***Model*** 6 ***(OCF_{t+3})***
Variable	Coefficient *p*-value	Coefficient *p*-value	Coefficient *p*-value	Coefficient *p*-value	Coefficient *p*-value	Coefficient *p*-value
Constant	-0.043 0.081*	-0.014 0.659	-0.025 0.521	-.045 0.123	-.025 0.487	
EARN	0.197 0.010***	0.203 0.068*	0.266 0.013**			
BVWG	0.049 0.000***	0.038 0.006***	0.057 0.001***			
GWILL	0.122 0.003***	0.066 0.272	0.008 0.916	.098 0.056*	-.014 0.850	-0.144 0.129
BIG 4				-.001 0.950	.006 0.797	0.011 0.663
BIG 4 × GWILL				.061 0.426	.210 0.034**	0.398 0.002***
Year dummies	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included	Included	Included	Included	Included
R^2	12.37%	6.07%	7.35%	12.51%	7.38%	10.83%
F-statistics	8.40***	4.16***	4.64***	6.74***	4.82***	6.05***
N	726	726	726	726	726	726

Notes:

1. *Variables definitions are provided in Table 4.1.*
2. *Coefficient estimates and analyses are obtained employing robust standard errors.*
3. **, **, ***, significant at the threshold of 10%, 5% and 1%, respectively.Table 4.3 also shows that the coefficients on goodwill (GWILL) is found to be significant only over one year forecast horizon (β = 0.122; p-value = 0.003). The insignificant association between goodwill and second and third-year horizon is in line with the notion that goodwill does not have future economic benefits. Hence, it has no room in the balance sheet. Alternatively, the significant coefficient for one year-horizon suggests that goodwill is related with the production of short term benefits.*

6. IMPLICATIONS AND CONCLUSION

The Malaysian Accounting Standard Board's (MASB) conceptual framework clearly indicates that the financial reporting of firms should offer useful information to assist shareholders and other users in predicting firms' future cash flows. In this paper, we investigated whether the predictive power of goodwill for future cash flows improved in the presence of the Big 4 auditors. Our assumption is that the Big 4 firms, due to their larger office, have more resources, knowledge, and expertise than other auditors to ensure higher reporting quality with respect to goodwill.

Using a sample of 726 firm-year observations, we found that the predictive ability of goodwill is limited to one-year-ahead cash flows. An explanation for this result may be that some benefits of goodwill has already impaired. Such an explanation is consistent with the line of literature showing that managers delayed the recognition of goodwill impairments; arguably they have private incentives to do so (Beatty & Weber, 2006; Lapointe-Antunes, Cormier, & Magnan, 2008; Ramanna & Watts, 2012).

However, when we included the interaction term between the Big 4 and goodwill, we found that goodwill of the Big 4 clients is significantly associated with second and third-year-ahead cash flows. The result implies that Big 4 auditors can better deal with the complexity associated with difficult to verify current goodwill accounting under MFRSs. It suggests that Big 4 improves the quality of goodwill reporting practices. This goes in line with argument that Big 4 firms render higher audit quality than other audit firms (Becker et al., 1998; Eshleman & Guo, 2014; Francis et al., 1999; Francis & Wang, 2008; Francis & Yu, 2009; Krishnan, 2003). However, this finding does not support Carlin *et al.* (2009b) who shows that firms in Malaysia are poorly complied with FRS 136 requirements even those audited by Big 4. The inconsistent results may be attributed to increase litigation risk faced by Big 4 through Audit Oversight Board (AOB).The AOB has established on April 2010 and it has the legal authority to perform inspections of the external auditors and evaluate the level of their compliance with recognised auditing, ethics and accounting standards (Tong, 2012). During 2010 and 2013, the AOB were taken action against eight auditors for failing to adhere with the recognised auditing standards, as well as failing to adhere with the ethical and professional standards of the MIA (The Star News, 2015). Thus, Big 4 firms have more incentive to perform high quality audits; they arguably have "more to lose" since litigation thread increases following AOB regime.

Our paper has a number of implications for standard setters, regulators, analysts and shareholders. First, standard setters indicate goodwill is an asset that has future economic benefits. Our results suggest the benefits of goodwill increased in firms audited by Big 4 auditors. For regulators, our results suggest that Big 4 firms play a pivotal role in ensuring better implementation of principle based accounting standards. For financial analysts and shareholders, our results highlight the value of Big 4 auditors in forecasting firms' future prospects.

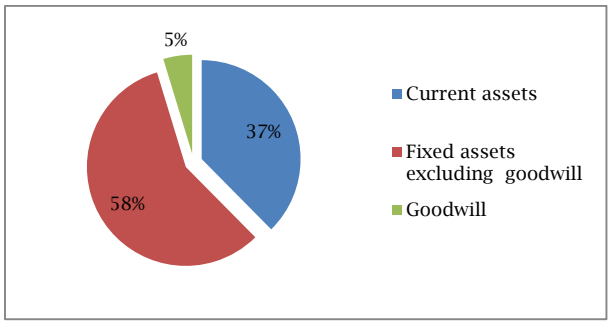
We acknowledge that our paper has certain limitations. These limitations may provide some possible avenues for future research. First, the data included in the regression models is limited to two years. Therefore, future research may obtain more robust results by extending this study to include

additional years and observations. Second, we do not consider the role played by corporate boards/ audit committees. Hence, the empirical analysis could be expanded by including corporate governance mechanisms. Finally, we focus on metric of accounting quality. Future research may consider other metrics such as value relevance and timeliness.

NOTES

- For example, between 2010 and 2011, the percentage of goodwill to total assets was 5 per cent as presented in Figure 1 below.

Figure 1. Economic significance of goodwill



Source: (Developed by the researchers)

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DETERMINANTS FOR ISSUING INTERNATIONAL BONDS BY BRAZILIAN FIRMS

Felipe Valle *, Andre Carvalhal*

* Federal University of Rio de Janeiro

Abstract

One of the most important topics studied in the finance literature is the capital structure of companies. This paper seeks to understand the determinants for the issuance of private debt securities (bonds) in the international market by Brazilian companies. We analyzed 472 non-financial listed companies from 2001 to 2009. We used probit and panel regression models to analyze the determining factors for the issuance of international bonds and estimate the probability for a Brazilian company to issue these securities. The results indicate that firm size and its exporting capacity are positively related to international bonds. There is a negative relation between the existence of foreign shareholders and the issuance of international bonds. Adopting good corporate governance practices, such as listing ADRs in the US or on Brazilian's New Market, is positively related to international bonds in a few models.

Keywords: International Bonds, Capital Structure, Corporate Governance, Brazil

1. INTRODUCTION

Several studies have been conducted in Brazil and abroad in order to analyze the determinants of the capital structure. There are two main theories, the trade-off and the pecking order theory. According to Graham and Harvey (2001), the first theory argues that firms make use of an optimal capital structure and that the main benefit of debt would be taxes (Modigliani and Miller, 1963). Thus, one would expect that large, profitable and mature firms have greater leverage and smaller and growing companies possess less leverage. Studies of Jensen and Meckling (1976), Easterbrook (1984) and Jensen (1986) corroborate the theory of trade-off by suggesting a positive relationship between leverage and profitability.

For the pecking order theory, Myers (1984) states that, because of adverse selection, firms prefer using internal funds. When external resources are needed, companies prefer to issue debt to equity due to lower information associated debt issuance costs. Shyam-Sunder and Myers (1999) find strong evidence to support this theory in a study of US firms over the period 1971-1989. In contrast, Frank and Goyal (2003) find results contrary to the pecking-order theory for US listed firms from 1971 to 1998.

Other studies over the years show ambiguity regarding the findings in the pecking order theory. Zender and Lemmon (2004) conclude that this theory can be considered a good explanation for how companies finance themselves, though Fama and French (2005) find the opposite. They also find that this theory could best describe the behavior of small firms rather than large firms, the opposite result of findings by Frank and Goyal (2003).

Harris and Raviv (1991) show evidence of the positive relationship between leverage and fixed assets, unrecognized tax benefits generated by debt, investment opportunities, firm size, and a negative relationship with volatility, probability of default and profitability.

Galai and Masulis (1976), Jensen and Meckling (1976) and Myers (1977) argue that companies with greater investment opportunities present lower leverage, considering that agency costs are directly proportional to investment opportunities. Titman and Wessels (1988) and Rajan and Zingales (1995) show that the tangibility of assets is an important determinant of leverage, since this is the amount that a company can give as collateral.

Titman and Wessels (1988) consider the size of the company a key factor for leverage because larger firms tend to be less risky. Warner (1977) and Ang et al. (1982) agree on the importance of company size, but consider that this factor has relationship with the bankruptcy costs, which are higher for smaller companies. Bolton and Freixas (2000) suggest that the higher the volatility of the company the greater the probability of default, leading to a negative relationship between volatility and leverage.

Starting from the discussion of the company's capital structure and moving toward the issuance of debt securities and more specifically international bonds, it is important to review the literature that demonstrates the importance of the bond market.

According to Hakansson (1999), a developed corporate bond market brings a positive effect on the economy, since the absence of this market results in a very high dependence of the banking system. Some of the effects of the absence of an efficient bond market are the lack of transparency in the accounts of firms, imperfections in the regulatory environment and problems of moral hazard. On the other hand, when the size of the banking system and the bond market is balanced, market forces have a greater chance to correct deviations, reducing systemic risk and the probability of crises.

Mizen, Tsoukalas and Tsoukas (2009) study the issue of debt securities in the US market from 1995 to 2004, and find that firms that have issued bonds before, with low credit risk and with incentives to seek external financing access the debt markets more likely than firms without these features.

Schmukler and Vesperoni (2001) conduct a study for East Asia and Latin America on the behavior of business financing options when countries integrate with global markets. The results show that financial liberalization does not increase the leverage of the companies. In addition, the authors find that countries with more robust financial systems are less affected by financial liberalization, which reinforces the importance of the bond market. Black and Munro (2010) show that the debt markets are increasingly becoming international. They find that issuers seek to benefit from the liquidity and diversification of international markets.

In Brazil, Leal and Saito (2003) review the empirical evidence on the determinants of capital structure and show that there is a shortage of long-term financing and therefore Brazilian firms follow the pecking order theory and usually finance its activities primarily through retained earnings.

Nakamura and Mota (2004) conduct a study in the Brazilian market in order to understand the application of trade-off and the pecking order theories. Their results indicate a predominance of the pecking order theory. In contrast, Zonenschain (1998), Singh (1995) and Prates and Leal (2005) reject the theory of the pecking order for the Brazilian market.

Leal and Carvalhal (2008) analyze the leverage of Brazilian companies from 1998 to 2004, as well as the type of debt instrument (bank loan, domestic securities and international bonds). The results indicate that firm leverage is positively related to asset tangibility, and negatively related to firm size and profitability. When the authors analyze international bonds, the results are the opposite, that is, the issue of international bonds is negatively related to asset tangibility, and positively related to firm size and profitability. A plausible explanation for this may be related to some characteristics of issuers of international securities, which tend to be larger, internationally recognized companies.

The purpose of this paper is to analyze the determining factors for issuing international bonds by Brazilian companies. We analyzed 472 non-financial companies from 2001 to 2009, and find the firm size, its export capacity, and good governance practices are positively related to the issuance of international bonds. In contrast, there is a negative relation between the existence of foreign shareholders and the issuance of international bonds.

2. DATA AND METHODOLOGY

We analyzed 472 non-financial listed companies from 2001 to 2009. The financial and accounting data were collected from the Economatica and Bloomberg databases. Table 1 shows data on international bonds issued by non-financial Brazilian companies from 2001 to 2009. The total volume issued during the nine years is significant, about USD 65 billion. The average tenor increased from 4.6 years to approximately 11 years, while the average yield remained almost constant at about 8% per annum. The number of issues seems to have strong correlation with the year, and is relatively low during crises (2002 and 2008).

Table 1. International Bonds Issued by Brazilian Firms

	Total Volume (USD MM)	*Average Volume (USD MM)*	*Average Yield (%)*	*Average Tenor (Years)*	*Number of Issues*	*Number of Issuers*
2001	4,046.87	176.03	8.63	4.63	23	11
2002	1,797.43	299.57	8.80	5.68	6	5
2003	8,347.00	189.70	8.58	4.80	44	23
2004	4,899.35	163.31	8.01	6.23	30	21
2005	4,399.21	183.30	8.79	6.42	24	16
2006	11,004.00	305.67	8.80	6.90	36	25
2007	9,089.58	275.44	9.19	8.11	33	28
2008	3,125.00	347.22	8.30	8.44	9	9
2009	18,342.00	917.10	7.92	10.97	20	14
Total	65,052.25	289.12	8.60	6.68	225	73

Data on international bonds issued by non-financial Brazilian companies from 2001 to 2009. The table shows the volume, tenor, yield, and number of issues and issuers.

We estimate probit models to estimate the probability for the issuance of international bonds by non-financial Brazilian companies. The independent variables were selected from previous studies on the capital structure, especially Leal and Carvalhal (2008). The probit models to estimate the probability of a company issuing international bonds are estimated with the following equation:

$$\begin{aligned} Prob(Intbonds=1) = \Phi(&\beta_0 + \beta_1 Lev + \beta_2 Tang + \beta_3 Size + \beta_4 ROA + \beta_5 P/B + \beta_6 Vot + \beta_7 Vot/Tot \\ &+ \beta_8 Exp + \beta_9 For + \beta_{10} NM + \beta_{11} ADR + \beta_{12} Year + \varepsilon) \end{aligned} \quad (1)$$

where *Intbonds* is a dummy variable that equal 1 if the firms has issued bonds and 0 otherwise, *Lev* is firm leverage (liabilities/total assets), *Tang* is tangibility of assets (fixed assets/total assets), *Size* is the logarithm of total assets, *ROA* is the return on assets (operating profit/total assets), *P/B* is the price-to-book (market value/book value), *Vot* is the percentage of voting shares of the controlling shareholder, *Vot/Tot* is the ratio of voting to total shares of the controlling shareholder, *Exp* is a dummy variable that equal 1 if the firm is an exporter and 0 otherwise, *For* is a dummy variable

that equal 1 if the firm has a foreign shareholder among the top ten shareholders and 0 otherwise, *NM* is a dummy variable that equal 1 if the firm is listed on New Market premium governance segment and 0 otherwise, *ADR* is a dummy variable that equal 1 if the firm has American Depositary Receipts in the US and 0 otherwise, and *Year* is a dummy time variable to control for differences in macroeconomic variables.

We used *ADR, For* and *Exp* variables to investigate the effect that the international recognition of the company may have in its choosing to issue international bonds. Moreover, we used NM to check if governance practices affect the likelihood of a company to issue international bonds.

After the probit models for issuing international bonds, we estimated panel regression models to determine what influence the size of issued bonds. The models were run only for companies who have issued international bonds, and have the following specification:

$$VolIntbonds = \beta_0 + \beta_1 Lev + \beta_2 Tang + \beta_3 Size + \beta_4 ROA + \beta_5 P/B + \beta_6 Vot + \beta_7 Vot/Tot + \beta_8 Exp + \beta_9 For + \beta_{10} NM + \beta_{11} ADR + \beta_{12} Year + \varepsilon \quad (2)$$

where *VolIntbonds* is the total international bonds issued by the firm, and the other variables are similar to those used in the probit models.

3. RESULTS

Table 2 shows the descriptive statistics of variables used in this study. We can see that only 3% of companies issued international bonds in the period. Approximately one third of the companies are exporters and have foreign shareholders. In addition, around 10% are listed on New Market and have ADRs. There is a strong concentration of the voting capital (62.89% in the hands of the controlling shareholder) and separation of voting and cash flow (1.21 votes for each share). On average, firms have leverage of 61.81%, ROA of 3.14%, P/B of 1.22 and 36% of fixed assets.

Table 2. Descriptive Statistics

	Average	*Median*	*Min*	*Max*	*Std Dev*	*Obs*
Intbonds	0.03	0.00	0.00	1.00	0.18	4509
ADR	0.12	0.00	0.00	1.00	0.33	4509
Vot	62.89	62.7***	0.45	100.00	28.28	3580
Vot/Tot	1.21	1.03***	0.13	2.46	0.40	3230
Exp	0.35	0.00	0.00	1.00	0.48	4247
For	0.32	0.00	0.00	1.00	0.47	4248
Lev	61.81	61.9**	0.02	137.88	24.72	2853
NM	0.10	0.00	0.00	1.00	0.30	4509
P/B	1.22	1.00	-2.02	4.62	1.10	2049
ROA	3.14	3.14***	-17.12	21.90	6.97	2703
Size	20.41	20.55***	14.93	26.57	1.94	3061
Tang	0.36	0.36***	0.00	0.99	0.23	3035

*Descriptive statistics of the variables used in this study from 2001 to 2009. ***, ** and * denote statistical significance at 1%, 5% e 10% respectively.*

Table 3 shows the correlation matrix, in which we can see that P/B, ROA, ADR, Exp, Size and Tang are positively correlated with the issuance of international bonds, confirming the hypothesis that the firm value, profitability, size, tangibility and international recognition (being exporter and issuing ADRs) are important factors for issuing international debt securities. In contrast, foreign shareholding and good governance practices are negatively correlated with international bond issues, which is contrary to our initial hypothesis.

Table 3. Correlation Matrix

	Int Bond	*ADR*	*Vot*	*Vot/Tot*	*Exp*	*For*	*Lev*	*NM*	*P/B*	*ROA*	*Size*	*Tang*
IntBond	1.00											
ADR	0.20	1.00										
Vot	0.00	-0.09	1.00									
Vot/Tot	0.06	0.00	0.24	1.00								
Exp	0.14	-0.05	0.00	0.14	1.00							
For	-0.05	0.17	-0.12	-0.09	-0.11	1.00						
Lev	0.07	-0.05	0.02	0.02	-0.02	-0.11	1.00					
NM	-0.06	0.23	-0.30	-0.23	-0.13	0.20	-0.21	1.00				
P/B	0.09	0.21	-0.06	-0.02	0.06	0.21	-0.07	0.28	1.00			
ROA	0.04	0.03	0.01	0.11	0.13	0.11	-0.39	0.00	0.29	1.00		
Size	0.33	0.46	0.01	-0.06	-0.08	0.19	0.14	0.11	0.23	0.12	1.00	
Tang	0.15	0.12	0.12	-0.03	0.08	0.07	0.18	-0.21	-0.05	-0.08	0.28	1.00

*Correlation matrix of the variables used in this study from 2001 to 2009. ***, ** and * denote statistical significance at 1%, 5% e 10% respectively.*

Table 4 compares the characteristics of companies divided into two groups: issuers and non-issuers or international bonds. We performed statistical tests of differences in order to verify if the means and medians are different between both groups. Our results indicate that issuers of

international bonds tend to be large firms, exporters, have higher value (P/B), profitability (ROA) and more fixed assets.

Regarding corporate governance, issuers of international bonds also tend list ADRs in the US and have lower concentration of voting shares, but they have higher separation of voting to cash-flow rights. Moreover, the percentage of firms listing on New Market is almost the same between issuers and non-issuers of international bonds.

Table 4. Firm Characteristics of Issuers and Non-Issuers of International Bonds

	Mean			*Median*		
	Non-Issuers	***Issuers***	***P-value***	***Non-Issuers***	***Issuers***	***P-value***
ADR	0.11	0.41	0.00 ***	0.00	0.00	0.00 ***
Vot	63.04	56.83	0.04 **	63.01	55.34	0.03 **
Vot/Tot	1.21	1.41	0.00 ***	1.03	1.42	0.00 ***
Exp	0.34	0.65	0.00 ***	0.00	1.00	0.00 ***
For	0.32	0.31	0.75	0.00	0.00	0.80
Lev	61.70	65.18	0.18	61.66	66.74	0.08 *
NM	0.10	0.12	0.42	0.00	0.00	0.68
P/B	1.20	1.71	0.00 ***	0.99	1.47	0.00 ***
ROA	3.09	4.37	0.08 *	3.09	4.28	0.08 *
Size	20.32	23.31	0.00 ***	20.47	23.46	0.00 ***
Tang	0.36	0.47	0.00 ***	0.36	0.48	0.00 ***

*Characteristics of companies divided into two groups: issuers and non-issuers or international bonds. Statistical tests of differences are performed to verify if the means and medians are different between both groups. ***, ** and * denote differences statistically significant at 1%, 5% e 10% respectively.*

Table 5 shows the results of probit regressions for the probability of a non-financial Brazilian company to issue international bonds. As can be seen in the table, firm size and the exporting capacity of company are the most important factors that affect the probability of issuing international bonds. The coefficients of Size and Exp are positive and significant at 1% in all cases, corroborating our initial hypothesis.

The tangibility of assets also has a positive relation with the issuance of international bonds, but it is significant in only 3 models. The ADR listing is significant in only 1 case, showing a positive relationship with issuing international bonds. The ownership structure and New Market listing are not significant.

Table 5. Determinants for Issuing International Bonds

Independent Variable	***Dependent Variable = Intbonds***							
	I	***II***	***III***	***IV***	***V***	***VI***	***VII***	***VIII***
Tang	-0.03	0.02	0.15	0.18	0.24	0.74*	0.75*	1.61***
	(0.92)	(0.94)	(0.66)	(0.60)	(0.50)	(0.10)	(0.10)	(0.01)
Size	0.58***	0.58***	0.58***	0.58***	0.50***	0.60***	0.60***	0.64***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ROA	0.00	0.00	-0.01	-0.01	0.00	-0.02	-0.02	-0.01
	(0.99)	(0.77)	(0.38)	(0.42)	(0.69)	(0.26)	(0.26)	(0.45)
Lev		0.00	0.00	0.00	0.01	0.01	0.01	0.02**
		(0.43)	(0.55)	(0.72)	(0.22)	(0.17)	(0.17)	(0.01)
Exp			0.70***	0.69***	0.65***	0.68***	0.69***	0.99***
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
For				-0.24*	-0.26*	-0.21	-0.21	-0.44**
				(0.07)	(0.06)	(0.21)	(0.21)	(0.03)
ADR					0.51***	0.19	0.19	0.29
					(0.00)	(0.28)	(0.30)	(0.19)
P/B						0.15	0.14	0.19*
						(0.11)	(0.12)	(0.07)
NM							0.04	0.08
							(0.88)	(0.82)
Vot								0.00
								(0.92)
Vot/Tot								-0.18
								(0.46)
Obs=0	2573	2517	2517	2517	2517	1682	1682	1445
Obs=1	94	94	94	94	94	75	75	57
McFadden R^2	0.35	0.35	0.39	0.39	0.41	0.47	0.47	0.53

*Probit regressions where the dependent variable is the probability of a Brazilian company to issue international bonds from 2001 to 2009. The coefficients and p-values (in parentheses) are reported. Year dummy variables are not shown in the table for space reasons. ***, ** and * denote differences statistically significant at 1%, 5% e 10% respectively.*

The coefficients of For are negative and statistical significant in 3 models, suggesting a negative relationship between the probability of issuing international bonds and the presence of foreign shareholders. Firm leverage is positive but significant in only 1 model. The positive relationship is in line with the theory, since leveraged companies may use all possible financing options, increasing

their propensity to issue international bonds. Year dummy variables (not shown for space reasons) do not have significant coefficients.

Table 6 shows the results of the panel regressions only for companies issuing international bonds. The dependent variable is the issued volume of international bonds by the company from 2001 to 2009. As we can see, firm size has positive and significant coefficients in all models, showing that big firms issue more international bonds.

Table 6. Determinants for the Issued Volume of International Bonds

Independent Variable	*Dependent Variable = Intbonds*							
	I	***II***	***III***	***IV***	***V***	***VI***	***VII***	***VIII***
Tang	-0.29	-0.31	-0.29	-0.33	-0.31	-0.30	-0.18	0.32
	(0.14)	(0.14)	(0.17)	(0.11)	(0.13)	(0.17)	(0.49)	(0.40)
Size	0.20***	0.20***	0.20***	0.19***	0.19***	0.22***	0.22***	0.22**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)
ROA	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	(0.12)	(0.25)	(0.44)	(0.58)	(0.52)	(0.96)	(0.65)	(0.29)
Lev		-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
		(0.63)	(0.51)	(0.34)	(0.44)	(0.62)	(0.66)	(0.88)
Exp			0.07	0.07	0.06	0.06	0.08	0.15
			(0.38)	(0.41)	(0.42)	(0.54)	(0.48)	(0.31)
For				-0.17**	-0.17**	-0.23***	-0.23***	-0.26***
				(0.02)	(0.03)	(0.00)	(0.00)	(0.01)
ADR					0.06	0.11	0.10	0.11
					(0.41)	(0.15)	(0.23)	(0.29)
P/B						0.03	0.01	0.00
						(0.45)	(0.87)	(0.97)
NM							0.20	0.37**
							(0.13)	(0.02)
Vot								0.00
								(0.64)
Vot/Tot								0.01
								(0.91)
R^2 adj	0.47	0.47	0.47	0.49	0.49	0.56	0.56	0.59
Obs	94	94	94	94	94	75	75	57

*Panel regressions where the dependent variable is the issued volume of international bonds by Brazilian companies from 2001 to 2009. The coefficients and p-values (in parentheses) are reported. Year dummy variables are not shown in the table for space reasons. ***, ** and * denote differences statistically significant at 1%, 5% e 10% respectively.*

The existence of foreign shareholders presents a negative and significant coefficient in all models. This result may be due to the fact that international investors prefer not to be shareholder and lender of a company at the same time to avoid conflicts of interest, so international investors would be present in only one part of the capital structure. This hypothesis can be weakened, considering the fact that the existence of ADRs has a positive (although not significant) relationship with the issued volume of bonds.

It is important to highlight that listing on New Market is positive and significant, suggesting that good corporate governance is positively related to the issued volume of international bonds. The fact that a firm is an exporter is also positively related to the issued volume of international bonds, but the relation is not significant.

4. CONCLUSION

This work analyzes the determinants for issuing international bonds by Brazilian companies. The results indicate that the size of the company and its capacity to export are important determinants for the issuance of international bonds. Big companies with large export flow tend to issue more international bonds.

Adopting good corporate governance practices, such as listing ADRs in the US or on Brazilian's New Market, is significant in a few models, suggesting a positive relation between better governance practices and the issue of international bonds. We also find a negative relation between the existence of foreign shareholders and the issuance of international bonds. This result indicates that international investors tend to prefer only one type of financial instrument (stock or debt) when investing in foreign companies.

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IDENTIFICATION OF INFORMATION NEEDS IN INTELLECTUAL CAPITAL: EXPLORATORY STUDY ON THE TUNISIAN FINANCIAL MARKET

Jihene Ferchichi*, Robert Paturel **

**Department of Management- Institute of Business Administration –FRANCE
*Department of Accounting and Finance, Faculty of Economic and Management – University of Tunis Manar – TUNISIA

Abstract

In an economy concretized by the broadening notion of the intellectual capital and its increasing role in investment decisions, it seems appropriate to conceive the intellectual capital by measuring its perception by 22 Tunisian financial professionals. Therefore, the aim of this work consists firstly to enable a better understanding of the intellectual capital of the Tunisian financial market. Secondly, by adopting the Delphi method, we determined the information needs and expectations consensus in terms of intellectual capital. The results of this research show that the concept of intellectual capital appears well known by the financial actors Tunisians. Besides this research, revealed new aspects of intellectual capital .The Tunisian investors consider these dimensions as important criteria that support making their investment decision.

Keywords: Intellectual Capital, Perception, Financial Markets, Informational Needs, Explanatory Survey, Delphi Method

1. INTRODUCTION

The evolution of new technologies and the movement of market boundaries more and faster profoundly altered the structure of economies. Indeed, an economy based on the production of goods and the ability to manage efficient way of material resources, the companies have entered a new era based on intelligence, knowledge, innovation capacity, information management, where the issue of value creation is based, increasingly, on the capacity to manage the intellectual capital. (Bounfour, 2000). Therefore, the share of intangible elements continues to grow in the productive capital of undertakings. Thus, the enlargement of the concept of intangible capital in firms over the last thirty years and its growing importance in the value creation process have demonstrated the financial markets that the value of a business comes much more its intangible capital such as ideas, information, intellectual property, patents, right, reputation or a dominant market position

Before, these are only the financial dimensions of interest to shareholders. These dimensions will no longer suffice to inform investors about the value of the firm and its growth opportunities. So, we have witnessed in recent years, a significant changing needs of Investors Financial Information. Several studies (Eccles et al. 2001; Lev, 2001; Beattie & Pratt, 2002a and b ...) demonstrated the importance of developing a communication on the know-how, patents, customers ... all elements belonging to the intellectual capital as defined by Edvinsson and Malone (1997). This evolution of information needs induced significant changes in corporate publishing practices. Béjar (2006) and Buck et al (2003) find that firms wishing to access the capital markets treat the content of their annual reports and publications value their intellectual capital to meet investor expectations.

Recent studies based on the construction of indices from a listing information on intangible capital also show improved corporate practices in this publication domain (Bukh et al., 2003; Fernandez, and Vazquez Montes, 2000; Barth and al., 2000; Eccles and al. 2001 , Lev, 2001; Beattie and Pratt, 2002a, 2002b; Chahine and Mathieu 2003; Lev and al., 2003; Cazavan-jeny, 2004; Garcia-Meca and Martínez, 2007).

However, despite this improvement and although most firms live in the pleasant illusion that their publication practices meet both criteria of usefulness and appropriateness, investors still showed dissatisfaction. On the other hand, for the data published on the intellectual are efficient and that signals can be established in the financial market, they must be understandable by investors, in line with expectations and satisfactory in relation to their information needs (Béjar, 2006).

Questioning informational investor expectations in terms of intellectual capital is the basis for this research. This article proposes to study the perception of intellectual capital in the financial market. To address this issue, we conduct an opinion survey by financial market professionals as part of an emerging country namely Tunisia, a country that has yet to learning in this area, and make a Census their opinions on the inclusion of these criteria in their process decision making. The choice of the Tunisian context is motivated by a desire to extend the previous literature having

focused on the general theme of intellectual capital in a specific context of an emerging country. Indeed, this context remains not still operated by researchers despite the Tunisian socio-economic environment is undergoing profound changes in recent years and to follow the trend in developed countries. In addition, it is justified by the existence of a multitude of institutional initiative in Tunisia, for the encouragement to practices related to intellectual capital.

The main objective of this study is to underline the perception of intellectual capital by Tunisian financial professionals. We ask, in particular, to know the representation of financial analysts and portfolio managers in relation to the concept of intellectual capital. Secondly, we intend to determine their intellectual capital information needs on the financial market.

The remainder of this paper is organized as follows. Section 2 reviews the previous theoretical and empirical research; the methodology and study design are discussed in the third section; the fourth section presents the test results; and the final section of the paper summarizes the conclusions, describes limitations, and discusses implications for future research.

2. LITERATURE REVIEW

The broadening notion of the intellectual capital and its increasing role in investment decisions have provided evidence on the financial markets that the value of a company comes from its intellectual capital. Therefore, we have witnessed in recent years, a significant changing needs of Investors Financial Information. the previous studies demonstrated the importance of developing a communication concerning intellectual capital. This evolution of information needs induced significant changes in corporate publishing practices. Béjar (2006) and Buck et al (2005) find that firms wishing to access the capital markets treat the content of their annual reports and publications value their intellectual capital to meet investor expectations.

In this context, several empirical studies have focused on identifying the most information expected by financial market participants regarding intellectual capital. Mavrinac and Siesfield (1997) appreciated the usefulness of intellectual capital information. This survey was to analyze the weight of non-financial factors in decisions of financial market participants, to determine the most important. This study is based on a survey of 275 US portfolio managers (representing 14% of the profession) of all types of financial institutions (pension funds, insurance companies, banks) and content analysis of 300 reports from independent experts. The non-financial information (relating to intellectual capital) are important indicators to judge the inner workings of business and the actual implementation of their strategy. The importance given to non-financial information by investors was one of the questions: 25% of investors, non-financial factors influence for more than 50% their decision, 60% of them, this influence is between 20 and 50%. On average, 35% of the investment decision is governed by non-financial data. This figure goes up to 67% when including non-financial data in the company's image. Indeed, the implementation of the strategy, innovation, increased market share and the personal characteristics of leaders are considered more important information by users as the evaluation of earnings or earnings per share. To deepen their study, and Mavrinac Siesfield (1997) selected the most expected information by users. Thus, the second part of this class survey in order of importance such information. The most expected non-financial information is shown in Table 1.

Table 1. The most expected non-financial information

Non Financial information	*Average rating:: (0 to 7)*
Existence of Firm stratgy	6.26
Leader credibility	6.16
Quality of Firm Strategy	5.92
Innovation	5.77
Ability to attract employees	5.61
Market share	5.60
Experience of leaders	5.54
Quality of remuneration policies	5.48
Research and development	5.40
Process quality	5.34
Customer Satisfaction	5.33

Source : Mavrinac and Siesfield (1997)

The findings of this study showed that investors place significant attention to certain criteria such as the implementation of the strategy, the credibility of the management, the quality of the strategy, the company's innovation capacity in its market and the capacity to remember talented people. This information is part of the major concerns for users who wish to evaluate the firm performance.

The study of Bournemann et al.'s research support the findings of Mavrinac and Siesfield (1997) that information for strategy implementation, market share, innovativeness and the company's ability to attract and retain talented employees are crucial. The results point towards a need for companies to adopt a more comprehensive approach to managing intellectual capital. Successful companies were also found to manage intellectual capital better than less successful firms.

These studies were largely confirmed by the Frotiee and Andrieu (1998) research in which it appears that a number of non-financial information is particularly important for users. Indeed, this researcher has shown that users have a strong

interest in information measuring the quality of production processes, its ability to innovate and customer satisfaction. The authors have found that the forecast errors decrease proportionally with the increase of analyzes based on intellectual capital information. The latter can exceed a superficial analysis of the company incorporating elements related to its strategy, organization, management and its customers. However, the authors believe that disclosure in this area does not meet the user expectations. The result of this study is shown in Table 2.

Table 2. The usefulness of non-financial indicators by investors

Indicators	*Financial indicators (F) Non-financial indicators (NF)*	*Importance of indicators*	*Adequacy needs versus the current publication*
Market Growth	NF	92%	84%
Earnings	F	92%	92%
Investments	F	90%	92%
Innovativeness	NF	90%	77%
Cash Flows	F	90%	90%
Quality of corporate strategy	NF	86%	84%
quality products	NF	84%	31%
Investment in R & D	F	84%	90%
Production cost	F	84%	84%
Market share	NF	82%	63%
Employee experience	NF	73%	43%
Customer loyalty	NF	64%	18%
R & D productivity	NF	61%	12%
Intellectual Property	NF	59%	39%
customer satisfaction	NF	57%	8%
Quality processes	NF	55%	29%

Derived from Andrieu and Frotiée (1998)

Thus, this study has largely confirmed that of Mavrinac and Siesfield (1997), demonstrating the relevance of non-financial measures for evaluating companies. They showed that the forecast errors decrease proportionally with the increase in the frequency of the tests on non-financial elements of performance. The share of non-financial information in decision of an investor decision is between 20% and 39% for more than 20% of respondents. The variety of items considered critical in the analysis of the economic situation of a company shows that investors rely on a variety of indicators to decide the management of their assets. Non-financial information helps to overcome a superficial analysis of the company by integrating elements related to its strategy and organization, as well as components relating to intellectual capital. Miller (1999) determined the top four information to be leadership skills, employee satisfaction, and employee motivation and there experience.

More recently, basing their study on 105 experienced financial analysts selected from among the largest financial institutions in London, Breton and Taffler (2001) were able to conclude that analysts in their investment recommendations give significant attention to certain intellectual indicators. They favor the implementation of the strategy, the credibility of the; management and the quality of the strategy. This information is part of the major concerns for users who wish to evaluate a firm value creation. Béjar (2006), from a survey conducted in France with financial analysts and portfolio managers, was able to determine the components of intellectual capital as perceived by financial market professional: The direction and supervision of the company, employees, organization, Innovation, environmental and customer satisfaction.

Curado (2008), using a qualitative approach, tried to determine the perceptions of knowledge management and intellectual capital in the banking industry. This study showed some interesting results, who confirmed the theoretical intellectual capital literatures, as well as specifying the value given to intellectual capital by the banks that participated in the study.

Ahmed and Hussainey (2010) explored managers' and auditors 'perceptions on intellectual capital measurement and reporting in Egyptian companies. This study showed some interesting results. They find significant differences between respondents' rates on intellectual capital indicators. These differences in perception between the two groups are due to the industry sectors used in this study. In addition, the study showed that information disclosure on intellectual capital is very low in the companies listed on the Egyptian stock market. Similarly, this study indicated that the control information on intellectual capital in annual reports is difficult to implement. Finally, the authors have determined that work experience is the main determinant of manager' perception on intellectual capital indicators, however professional education is the main determinant of external auditors' perceptions on intellectual capital indicators.

Ferreira and Martinez (2011) emphasize on the influence intellectual capital has on employees' perceptions as related to both firm investments and productivity levels. Results show that companies with with a high level of disclosure on Structural Capital have a lower perception of investment in human resources and research, as well as a higher perception of investment in marketing and sales. Moreover, employees of companies with higher Structural Capital scores also have higher perceptions of productivity. On the other hand, organizations with higher investment in Customer Capital tend to be associated with a lower perception of organizational productivity.

3. METHODOLOGY AND DESIGN

3.1. The use of exploratory and qualitative approach: Delphi method

To identify the perception of the Tunisian financial market professionals of the importance of intellectual capital built by companies and reveal their expectations in regard to disclosure of information on these topics, we chose to Like many researchers (Béjar, (2006), Belal and Roberts (2010)) following a qualitative approach. In this regard, the investigative tools are selected, respectively, focus groups, semi-structured interviews and questionnaires.

In order to get a consensus view on the part of investors on their information needs on intellectual capital and the importance they attach to this information in the business assessment process, we realized our questionnaire by applying the Delphi method. This is an iterative method well known, with feedback from the group information, which provides data reflecting a consensus on the expert panel considered. The final information is thus richer than the simple average (or median) of a panel of experts, since from the second step of the method, the experts must take into account assessments of the rest of the panel. In order to get a compromise between satisfactory results and our constraints means and time, we have achieved three successive iterations.

Moreover, before starting this exploration, we will conduct a financial market actors to generate survey items or items that make up the intellectual capital as they perceive it. The completion of this investigation is a preparatory step to initiate a second round of interviews and discussions with financial market professionals whose objective is to select the information on intangible capital most relevant for estimating the value of the firm.

After fixing the list of information from the exploration we chose to equip our items in a Likert scale of five levels. This scale construction technique is more manageable than other techniques developed for the sake of consistency and investigation of nature that involves a solicitation of experts three times in an iterative manner (3 questionnaires). Thus, it is necessary to choose a scale of easy understanding as the Likert scale. Moreover, it is insensitive to the collection method, which is also an advantage. The choice of the number of points within the range (5 levels) was dictated by the desire to simplify the task of respondents, given the relative length of the questionnaire and the information often give rise to reflection. Indeed, a 7-point scale could also be considered, but in the five levels of response arrangements require the respondent to take a clear decision. Thus, for each information on intellectual capital, a rating scale is proposed. This is a scale of importance to the following five levels: Very low importance, Fairly low importance, Moderate importance, Strong enough importance , Very high importance.

The expert opinion is sought in the form of a score of 1 to 5, expressing the importance it attaches to the criterion in question to assess the company on the financial market.

3.2. Sample selection

The target population of the survey consists of financial market actors involved in financial evaluations of companies and investment decisions: financial analysts and portfolio managers

Our choice to focus on this particular category of users of financial information was made for several reasons: the importance of these users' intermediary role in the chain of economic information, their ability to explain their specific needs for information and their capacity to guide the investors' behavior in the financial market (Healy and Palepu, 2001). In this sense, our survey was conducted among 22 financial professionals: 12 financial analysts and 10 portfolio managers. Table 3 presents a summary of sample of the respondent's characteristics.

Table 3. Characteristics of the respondents'sample

characteristics of respondents	*Financial analysts*			*portfolio managers*		
Number	***12***			***10***		
Level of study	Bachelor	Master	Phd	Bachelor	Master	Phd
	9,09%	90,9%	0%	28,57%	57,14%	14,28%
Speciality	Accounting	Finance	Management	Accounting	Finance	Management
	16%	75%	9%	30%	60%	10%
Professional experience	Between 1 and 3 years	Between 4 and 10 years	More than 10 years	Between 1 and 3 years	Between 4 and 10 years	More than 10 years
	18,18%	36,36%	45,45%	0%	57,14%	42,85%
Other professional experience	No	Yes		No	Yes	
	81,9%	18,1%		42,85%	57,14%	
Number of annual reports read	Between 1 and 10	Between 11 and 20	More than 20	Between 1 and 10	Between 11 and 20	More than 20
	27,27%	45,45%	27,27%	71,42%	28,57%	0%

3.3. Statistical tools

To assess the degree of convergence between the successive stages of the Delphi method, we were inspired by the approach proposed by Schmidt (1997). In order to measure the significance of this convergence, Schmidt (1997) proposes to charge a Kendall test to give a measure of agreement of respondents. Table 4 helps guide the researcher in the interpretation of W Kendall:

Table 4. Interpretation of the Kendall W

W	Interpretation
0.1	very low level of consensus
0.3	Low level of consensus
0.5	Acceptable level of consensus
0.7	High level of consensus
0.9	Very high level of consensus

Source : Schmidt (1997)

4. EMPIRICAL RESULTS

The Delphi study allowed us to perceive the intellectual capital in an own perspective to the financial market and determine by consensus the information about intellectual capital most relevant to the financial market. The consensus reached on the information needs of investors in the intellectual capital is the result of four steps. In the first step, the exploratory study conducted with financial analysts and portfolio managers allowed to propose a conceptualization of own intellectual capital to the Tunisian financial market consists of 49 items. We have grouped these components into 9 categories of information. Table 5 presents the results of the exploratory study of intellectual capital as perceived by the Tunisian financial market:

After fixing the list of information from the previous exploration, respondents are asked to decide on the degree of importance of information on the intellectual capoital on the financial market. Thus, they have given a score ranging from 1 to 5 for each list information already defined 1. Very low importance, 2. Fairly low importance, 3. Moderate importance, 4. Strong enough importance, Very high importance. This operation is done in an iterative manner (three successive iterations).

Table 5. The conceptualization of intellectual capital by the Tunisian financial market

Categories of information on intellectual capital	**Informations** on intellectual capital
Capital Corporate Management	1- Ability of senior executive to manage crises and fluctuations of the market 2- Ability of governing bodies to keep employees in the company 3- Capacity of the top executive to attract people of talent managerial 4- Talents in publishing, conference 5- Managerial capacity of coordination, command and control 6- Experience Leaders 7- Human qualities of leaders 8- Level of remuneration and benefits awarded to management bodies
Capital Corporate Governance	9- Ownership structure 10- Independence of the main shareholder 11- Board Composition 12- Operation of the Board 13- Auditor's reputation 14- Existence of a joint audit 15- Quality of the auditor report 16- Existence of an internal audit department 17- Existence of an audit committee 18- Quality of financial disclosure
Human Capital	19- Productivity and competence of staff 20- Staff commitment to society and degree of membership 21- Human Resources rotation 22- Motivation and Employee profit 23- Accompanying terms of employees
Organisational Capital	24- Performance of organizational structures 25- computerization level 26- Existence of effective information systems 27- Establishment of administrative and accounting procedures manuals 28- Existence of quality control processes
Innovation Capital	29- The activities in R & D 30- Design of new products 31- Design software adapted to technological innovation 32- Intellectual property 33- Trade licenses
Customer Capital	34- Ability to retain customers 35- Taking into account customer expectations to meet Customer 36- Customer dependence on Product 37- Company's dependence on customers 38- Company's Market share in the sector
External Relations and Risk Management	39- Management and control risks related to national and international economic conditions 40- Analysis of competitive advantages and type of competition 41- Competitive positioning in the local market 42- Benefits arising from contracts of partnerships, alliances and synergies 43- Quality of the company's relationship with its environment
Environmental Ethics Capital	44- Consequences of the company's activities on the environment 45- The investments committed to environmental protection 46- Conservation of natural resources and improvement of energy consumption policy 47- Corporate to governmental and environmental standards compliance
Reputation Capital	48- Corporate reputation 49- Accredited certification to a quality standard ensuring the quality of company products and services

Thus, during the first stage of the investigation, we took over the list of information on intellectual capital from the exploratory survey already conducted before and we asked respondents to comment on a Likert scale of 5 points, according to the importance they attach to the information in question to evaluate the company. We asked respondents to propose amendments to the list already submitted, so as to retain only information deemed relevant in decision making. In fact, we gave them the freedom to add missing information in the list that are considered relevant and remove others if they seem a paltry utility. Similarly, we have given them the freedom to improve the appellations of information, if they are the subject of confusion. At this stage of the Delphi survey, the contribution of financial market experts mainly involves the assignment of a rating that varies according to a scale of 1 to 5 points, with each of the information on intellectual capital according to their level of importance on the market. In the second round, the experts informed of the results of the first round, provided a new response and above are required to justify if it is highly deviant in relation to the group. Thus, at each stage of the Delphi survey, a new questionnaire has been prepared and circulated for the next step. The third and final round of Delphi, gives the definitive answer: a consensus view of opinions.

The results of the first stage, show that only 29 of the 49 studied information is subject to a strong consensus. Of the 20 other information, there is no consensus among the experts, which is quite normal at this stage of the method, since the greater convergence between respondents should take place at the end of the following steps. However, we can not comment on the validity of these results that once the Kendall concordance test performed. Indeed, the calculation of Kendall W allows us to conclude on the general level of consensus among experts.

Table 6. Kendall concordance test – First Stage of Delphi

Number of Respondents	22
Kendall W	0.512
Chi-deux	633.933
Number of information	49
Signification asymptotique	0.000 (<1%)

The calculation of the level of agreement gives K = 0.512, a high degree of significance. This value of K corresponds, according to the criteria of Schmidt (1997), an acceptable level of consensus, but below the level considered "high" (0.7). The second stage of the investigation should enable us to improve this level of agreement. During the second stage, we found a greater convergence of the experts' responses. Indeed, the information strong consensus at the first stage were confirmed. Also, the convergence of the information to be little consensus, at the first interview, has improved significantly, demonstrating a clear convergence of views. To confirm this trend, we have calculated, again, the coefficient W Kendall, according to our methodological approach already described.

Table 7. Kendall concordance test – Second Step of Delphi

Number of Respondents	**22**
Kendall W	**0.721**
Chi-deux	**893.236**
Number of information	**44**
Signification asymptotique	**0.000 (<1%)**

Kendall test indicates, at the end of this second step, a W> 0.7. Thus, we can consider that the level of consensus in this phase is high, a high degree of significance. We can therefore conclude that a significant convergence of responses between the two stages of the Delphi method. The last step is only a confirmatory phase which was obtained in the previous step, since the level of agreement has been improved considerably.

Table 8 : Kendall concordance test – Last Step of Delphi

Number of Respondents	22
W Kendall (a)	0.732
Chi-deux	905.946
Number of information	42
Signification asymptotique	0.000 (<1%)

Information on intellectual capital adopted by consensus at the end of the Delphi method carried out in 3 steps are summarized in Table 9.

Table 9. The information needs in intellectual capital retained by consensus

Categories of information on intellectual capital	*Informations on intellectual capital*
Capital Corporate Management	1- Manager Competence 2- Capacity of the manager to keep employees in the company 3- Capacity of manager to attract people of talent 4- Manager Experience 5- Manager Credibility and franchise 6- Level of remuneration and benefits awarded to management bodies
Capital Corporate Governance	7- Ownership structure 8- Independence of the main shareholder 9- Board Composition 10- Operation of the Board 11- Auditor's reputation 12- Existence of a joint audit 13- Quality of the auditor report 14- Existence of an internal audit department 15- Existence of an audit committee 16- Quality of financial disclosure
Human Resources	17- Productivity and competence of staff 18- Staff commitment to society and degree of membership 19- Human Resources stability 20- Motivation and Employee profit 21- Accompanying terms of employees
Organisational Capital	22- Performance of organizational structures 23- Existence of effective information systems 24- Establishment of administrative and accounting procedures manuals 25- Existence of quality control processes
Innovation Capital	26- The activities in R & D 27- Design of new products 28- Design software adapted to technological innovation 29- Intellectual property 30- Trade licenses
Customer Capital	31- Ability to retain customers 32- Customer dependence on Product 33- Company's dependence on customers 34- Company's Market share in the sector
External Relations and Risk Management	35- Management and control risks related to national and international economic conditions 36- Competitive positioning in the local market 37- Benefits arising from contracts of partnerships, alliances and synergies 38- Quality of the company's relationship with its environment
Environmental Ethics Capital	39- The investments committed to environmental protection and to conservation of natural resources 40- Corporate to governmental and environmental standards compliance
Reputation Capital	41- Corporate reputation 42- Accredited certification to a quality standard ensuring the quality of company products and services

Table 10 defines the categories of information on the intellectual capital most valued by the financial market participants.

Table 10. The order of relevance attributed to the various categories of information on intellectual capital

Categories of information on intellectual capital	*Mean*	*Median*
Innovation Capital	4.952	5
External Relations and Risk Management	4.941	5
Capital Corporate Management	4.904	5
Capital Corporate Governance	4.904	5
Reputation Capital	4.857	5
Human Resources	4.523	5
Customer Capital	4.381	4
Organisational Capital	4.190	4
Environmental Ethics Capital	3.952	4

Table 10 shows that innovative capacity is the most important category of information in the financial market. Experts interviewed ascribe an average of 4.952 on a maximum value of 5. They consider that innovation is a key lever for long-term growth of the economy and an essential strategic asset since it founded the welfare of future generations, and this category of information is most valued in the financial market. Similarly, the information category related to the External Relations and Risk Management is highly valued by the financial markets since the potential of the company's interactions with its environment is an asset. Reading this table also shows that the information category for the management of the company and its governance are particularly important because their experts interviewed attribute an average of 4.9. However, the category of

information relating to environmental ethics seems to be the least requested by the financial market. The majority of respondents thinks that these concepts are not sufficiently rooted in the Tunisian context and added that the actions of environmental ethics are a luxury we will not afford to currently in an emerging country.

5. CONCLUSION AND IMPLICATION

At the end of this study, we defined by consensus the intellectual capital as perceived by the financial market. Our survey of financial analysts and portfolio managers, allowed us to define intellectual capital as consisting of nine elements: « Capital Corporate Management », «Capital Corporate Governance », « Human Resources », « Organisational Capital » , « Customer Capital », « External Relations and Risk Management », « Environmental Ethics Capital » and « Reputation Capital ».

If this definition is not different from the academic literature, however our study has clearly highlighted the importance of « Capital Corporate Management », « Capital Corporate Governance », « External Relations and Risk Management », and « Innovation Capital » in the definition of intellectual capital. In this sense, our study can supplement existing work and allows carrying a definition of the concept intellectual from a financial perspective.

According to the respondents (financial analysts and portfolio managers), these components must guarantee the development of the intellectual capital of the company. Interest in these components is confirmed by our Delphi survey. These elements collect the highest ratings compared to other components of capital identified intellectual. The consensus results of the Delphi survey for the definition of intellectual capital can be considered a model for companies who wish to report the quality of their intellectual capital in the financial market.

This result implies that the companies should seek to disclose these items. This research raises the awareness of the Tunisian managers to pay attention to their voluntary disclosure in the annual reports to meet the growing information needs of their external users regarding the intellectual capital.

Like any research effort, our work suffers from a number of deficiencies among which the small size of the sample (22 respondents). Like most qualitative research, in addition to the subjective nature of the data collected, this study was limited to the interrogation of the only financial analysts and portfolio managers. Today's concept of intellectual capital remains a notion that raises the interest of all stakeholders. In future research, it is proposed to extend the study to other financial players, bankers, accountants, institutional investors.

This research provides some lines of thought that should be explored further. Our research can only help the launch of a debate on intellectual capital disclosure and the improvement of the quality of the external reporting. Other qualitative studies could be carried out about the confrontation between supply and demand for Voluntary intellectual capital Information in the Annual Reports

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LEADERSHIP MODELS FOR A GOOD GOVERNANCE INSIGHTS FROM SOME EXEMPLARY ITALIAN CASES

Mara Del Baldo*

* Department of Economics, Society and Politics – DESP, School of Economics, University of Urbino Carlo Bo

Abstract

The paper addresses the theme of responsible and good governance founded on a moral and ethical-based leadership approach. Firstly, the work describes the theoretical framework paying specific attention to ethical leadership theories, responsible leadership and governance. Subsequently it presents the first results of an empirical analysis centered on exemplary case-studies relative to Italian companies, which are included among the best performing ones and have for years built a responsible orientation in their mission and governance models. Findings underline how coherent leadership models based on a positive moral perspective, authenticity, and integrity act in promoting a cultural reorientation inside and outside the company, valorizing relationships with stakeholders, favoring trust and fairness in the interactions with employees and collaborators, and allowing to establish effective models of governance based on the sharing of information, openness and democratic participation.

Keywords: Authenticity, Business, Ethical Leadership, Integrity, Governance, Moral Leadership, Responsibility, Sustainability, Values.

1. INTRODUCTION

Leadership is a process which involves influencing others, within a group context, directed toward goal attainment (Olsen, 2010). Goleman (2012) describes leadership as the ability to inspire and guide individuals and groups triggering positive feelings in people; to do that leaders must therefore know how to create resonance expressing and arousing enthusiasm for a common ideal. Accordingly, leadership could be defined as "articulating visions, embodying values, and creating the environment within which things can be accomplished" (Richards & Engle, 1986: 206; Hetland, 2004).

Several theoretical frameworks posit leadership: trait theories are concerned with identifying the leader's personal characteristics; functional theories focus on what leaders do; style theories concentrate on the manner of leadership adopted, as well as situational approaches and contingency theories that view differing leadership styles as being appropriate in different situations (Cambridge, 2015: 296). Moreover, leadership theories and approaches include: transational leadership (Burns, 1978); passive-avoidant leadership (Bass & Riggio, 2006); servant leadership (Greenleaf, 1977); transformational or transforming leadership (Burns, 1978; Bass & Riggio, 2006); responsible leadership (Maak & Pless, 2006; Avery & Bergsteiner, 2011); sustainable leadership (Avery & Bergsteiner, 2011; Burns, Vaught & Bauman, 2015); authentic leadership (George, 2004; Avolio & Gardner, 2005); shared leadership or distribuited leadership (Pearce, Conger 2003; Bolden, 2011); ethical and moral leadership (Bass & Bass, 2008; Brown, 2005; Brown & Treviño, 2006; Brown, Treviño & Harrison, 2005) and spiritual leadership (Alford & Signori, 2014; Malloch, 2008; Fry, 2003; Pruzan, 2011; Capaldi, 2013).

Leadership is essential to the success of introducing ethics within the organization and the benefits of implementing ethical practices and ethical-based leadership model have been widely debated (Kaptein, 2009; Kaptein & Wempe; 2002; Lloyd & Mey, 2010). Moreover, literature emphasizes the relevance and the benefits of entrepreneurial leader virtues (Dutta & Banerjee, 2011; Davis & Rothstein, 2006; Martin & Cullen, 2006; O'Fallon & Butterfield's, 2005; Riggio et al., 2010; Flores & Green, 2013; Brown, 2011).

The values construct of entrepreneurial and managerial activity has been emphasizes within the business ethics literature, especially introducing the concepts oh management integrity, authenticity and virtues which are becoming widespread in the corporate context, giving rise to models of leadership and good governance aimed at constructing a more civil economy and to orient companies toward sustainable and holistic development (Sorci, 2007; Bebbington, 2007; Ketola, 2008).

Starting from these premises, the paper focuses on entrepreneurial and managerial leadership, on its moral and ethics attributes and its relationship with a good governance.

Which are the attributes of a moral and ethical-based leadership? Which are the characteristics of a responsible leadership? How do they affect governance? In order to answer these research questions the study focuses on moral and virtues-based leadership and its influence on the governance systems and related actions and strategies. The analysis addresses attention to the balance between conditions under which strategies are carried out (models of work organization, corporate governance and business atmosphere, intra and extra-corporate relationships and leadership).

The work is structured as follows: section 2 work introduces the theoretical framework paying specific attention to ethical, moral-based and responsible models of leadership and governance. Section 3 presents the first results of an empirical analysis, centered on exemplary case-studies (Yin, 2003; Naumes & Naumes, 2006; Eisenhardt & Graebner, 2007) related to Italian companies which have for years built a responsible and ethical-based orientation,translated in their mission and governance models. The empirical study has been developed adhering to the action research approach (Contrafatto, 2011) and using different research tools (interviews, documental analysis and participant observation). Finally, section 4 presents the concluding remarks.

The results of the study have both scientific and managerial implications and underline how moral and ethical-based leadership can drive a cultural reorientation, valorize humanity and relationships with stakeholders, reinforce social cohesion and reputation and enhance success, in coherence with a governance model based on transparency, democracy and participation.

2. ETHICAL AND MORAL-BASED LEADERSHIP AND GOVERNANCE: THEORETICAL FRAMEWORK

In the ethical leadership construct a good leader is portrayed as a moral person (e.g. fair, honest, behaving morally both in personal and professional life) who influences followers' moral conduct and ethical behavior (Brown, 2005).

More precisely, the morality of the person is determined by the nature of his/her conduct (the competence attitude) and the possession of certain characteristics such as honesty, reliability, integrity (Treviño et al., 2000; Treviño, Brown, 2005) as well as sincerity and genuineness (Becker, 1998).

"When one thinks of a good managerial/entrepreneurial leader, one thinks about a person who can get the most out of others. An excellent leader is a person who can help others become aware of what they can achieve" (Bertland, 2009: 145). Such a leader is able to motivate others to excel and to provide the resources allowing people to develop their capabilities in a way that coheres with communities near and far. A virtuous manager will need to recognize instances when she/he could help another develop a capability (Nussbaum, 2000; Sen, 1999). For this reason, a manager should "walk the talk and talk the wolk" (Paine, 1994).

According to Brown, Treviño and Harrison (2005) ethical leadership in the business context is related to the estimated behavior, honesty, trust in leaders and fairness in the interactions with employees and collaborators. De Hoog and Den Hartog (2008) shows that ethical leadership is "vital" for the organization because it allows you to establish trusted relationships. Trust is in fact often considered the result of an ethical behavior and moral integrity; representing a key component to the success of the working relationships between leaders and followers, it enables cooperation, helps manage the differences, encourages the sharing of information, increases the openness and acceptance (Van Den Akker et al. 2009).

There are leaders who freely admit that they are driven by intrinsic and contagious commitment to values (Bouckaert, 2011). Hoivik underlines how and why leadership is not possible without ethics and how one cannot separate them, as "being a moral leader and doing, acting with moral leadership are one" (Hoivik von Weltzien, 2014: 3). Morals and leadership can be studied on an individual level and on a group and organizational level (Bass and Bass, 2008). On the one hand moral behavior [1] is influenced by situational factors such as role modeling, diffusion of responsibility and conformity. On the other hand individual differences (i.e. personality and values) act as antecedent of moral behavior (Brown & Treviño, 2006; Rest & Narvaez, 1994).

When linked to spirituality moral leadership has been viewed as the mean by which religious beliefs impact leaders, the workplace and the society (Hoivik von Weltzien, 2014; Alford, 2015; Bouckaert, 2011; Parry & Proctor-Thompson, 2002; Pruzan, 2011; Fry, 2003; Bouckaert, Opdebeeck & Zsolnai, 2007; Capaldi, 2013; Malloch, 2008). Ethical standards in business setting and levels of corporate responsibility are the interrelated concepts that Sauser Jr. (2005) addressed in his work paying particular attention to the capability of business leaders in creating an ethical organizational culture, a good governance and developing an authentic orientation toward CSR (corporate social responsibility).

Indeed in the last decades ethics literature has emphasized management integrity, authenticity and virtues which are becoming widespread in the corporate context, giving rise to business models and model of governance (Sacconi, 2008) aimed at constructing a more civil economy (Driscoll & Hoffman, 2000; Pruzan, 2001; Cortright & Naughton, 2002; Argandoña, 2003 and 2011; Luthans & Avolio, 2003; Gui & Sugden, 2005; Zamagni, 1995; Zadek, 2006). These studies are a significant and emerging part of the theoretical framework of CSR and sustainability (Garriga & Melé, 2004; Becker, 1998; Brown, 2005; Ruisi, 2010).

The organizational culture imbued with moral leadership enjoys several benefits: understanding of the interdependence with stakeholders; learning environment; respect and trust; cooperation; responsibility and accountability (Gray, et al., 2014). The person of the leader integrates, in fact, the moral standards in their own values, attitudes and beliefs. He/she is perceived as honest, reliable and correct in decision-making; guides its collaborators toward goals and objectives, that benefit the community Van Den Akker et al. 2009). According to Brown, Treviño, Harrison (2005) ethical leadership is related to the estimated behavior, honesty, trust in leaders, and fairness in the interactions. De Hoog and Den Hartog (2008) shows that ethical leadership is "vital" for the organization because it allows you to establish trusted relationships.

The responsible leadership theory, formulated by Maak and Pless (2006), describes the responsible leadership as "an ethical and socio-relational phenomenon that occurs in social interaction processes" (Maak & Pless 2006, p.99). The responsible leader aims to excellence results for his/her organization and for all stakeholders (Avery &Bergsteiner, 2011). Responsible leadership is a way of understanding leadership that brings the leaders approach to stakeholders requiring them to engage also in involving stakeholders with virtues and integrity in order to build better communities and good working environments (Jones, 2014; Burns et al. 2015). In other words, responsible leadership

makes possible the integration of the leaders within the stakeholder communities; a fair, personal and honest relationship is, therefore, an element that allows and qualifies the responsible leadership.

Moreover, leadership is conceived as a collective social process that emerges through the interactions of multiple actors (Bolden, 2011). The so called "shared leadership" (Pearce & Conger, 2003) - otherwise known as co-leadership, collective leadership or distributed leadership - is as a process that goes beyond the boundaries of traditional hierarchical leadership (one-way, top-down) through the creation of a climate of total transparency, where the leadership, its responsibilities and potential are widely shared within the entire organization (Pearce & Conger, 2003; Bolden, 2011). Pearce and Conger (2003, p.1) defines the shared leadership as "a process of influence between members of groups dynamic and interactive for which the goal is drive themselves to one another in order to achieve the group's goals, organizational goals or both" (Pearce and Conger, 2003: 1). The perspective of the collective process rejects the top-down approach typical of classical literature. Shared leadership implies, in general, increased participation in organizational decision making processes (Ulhoi, Muller, 2014).

As we can see in the following sections, one can find many examples of organizations where leadership is inspired by constitutive moral elements (innovation, intuition, imagination and attention; (Hoivik von Weltzien & Melé, 2009; Hoivik von Weltzien, 2014) which translate into governance model based on democracy, collaboration and transparency.

The moral imperative of innovation requires seeing the whole and understanding how human action impacts on others, including the environment (Bruni, 2012; Bruni & Sena, 2013). It entails perceiving norms, social roles, and relationships entwined in managerial and entrepreneurial decision making. Moreover it involves the ability to envision business models that create new possibilities to reframe problems and create new solutions in ways that are economically viable and morally justifiable (Werhane, 1999: 93). Moral leadership and moral creativity have become more important than ever for businesses that have to face a global environment because neither philanthropy nor risk management are sufficient any longer. Creative value management and effective governance depends on the attention paid to all values that are at stake.

A challenging approach suggested by Visser (2011) rests on the notion that business survival depends on a continuous striving for sustainability and that moral leadership is a key driver to implementing authentically responsible and sustainability-driven strategies and coherent model of governance (Goffee & Jones, 2009). Many companies are in fact characterized by a business culture making responsibility and sustainability a moral duty driven primarily by an intrinsic motivation (Graafland & Van de Ven, 2006). Furthermore, extrinsic orientation is mainly diffused among large companies (Porter & Kramer, 2006; Matten & Moon, 2008; Kolk, 2008; Castellò & Lozano 2011) while small and medium-sized enterprises, as well as family businesses are more often intrinsically motivated by and are nurtured by social capital and values typical of the entrepreneurial and familial capitalism (Spence et al., 2003; Steurer et al., 2012; Fifka, 2012; Looser & Wehrmeyer, 2015).

Many companies, often little known, even silently, are witnesses of exemplary models of leadership and governance which derives/translate into authentic responsible and sustainability-oriented strategies and actions. Particularly, intrinsic motivations are diffused among "ideal-based company" (Malloch, 2008; Molteni, 2009; Capaldi, 2013), such as community-based companies (Peredo & Chrisman, 2006), territorial companies (Del Baldo, 2010b), economy of communion (Eoc) companies (Del Baldo & Baldarelli, 2015), as well as family-based enterprises, whose social responsibility vision affects its responsible behavior (Aragòn Amonarriz & Iturrioz Landart, 2016; Del Baldo, 2012). All these companies form a diversified network that throughout the world, offers example of authentic ethical-based connotation (Hoivik von Weltzien, 2014).

Indeed, the business world needs for "the application of successful intelligence and creativity toward the common good" (Zamagni, 1995; Capaldi, 2013) and brave leadership capable of translating in good governance models contrasting mainstream economics and business conducts which consider only monetary values, disregard non-market stakeholders and discount the future (Zsolnai, 2015).

Authenticity as a driver of entrepreneurial and managerial behavior relates to the expression of integrity (see Kaptein & Wempe's (2002) "diamond of integrity" management model) that is about being sincere, honest and genuine (Trilling, 1972; Becker, 1998; Cardon et al., 2009; Aragón Amonarriz & Iturrioz Landart, 2016). Entrepreneurial and managerial authenticity influences the nature and extent of responsible and good governance. Moreover, it places at the basis of the stewardship approach adopted to manage stakeholders' expectations. Organizational integrity means that the organization's values should guide its interactions with internal and external stakeholders" (Painter-Morland, 2006: 358). It reflects the organization's identity, goals and culture and is supportive of ethical behavior. It can only exist where there is mutual trust between the organization and its stakeholders (Paine, 1994) which, in turn, depends on the manner in which the organization succeeds in living according to its stated values.

Principles which express authenticity in the business context translate into acting with honesty and fairness with customers and suppliers (providing good and safe products and services; openly share knowledge and competences; building lasting relationships); being a good citizen (providing opportunity for less privileged people; making a full and fairly contribution to society); nurturing a responsible and responsive employer (treating everyone with dignity and ensuring people continuous improving and learning foster innovation, leadership and accountability); being a guardian for future generations (contributing to protect the natural world and conserve its finite resources; investing in developing skills, knowledge and understanding in wider society); having a purpose (holistic development) which delivers long-term sustainable performance (Sorci, 2007). Accordingly, practices that are formed from authenticity include a cultivation of direct relationships with stakeholders beyond what is economically required, and the fostering of trust is relationships within the company and between the

corporation and its stakeholders (Thomson, & Eynikel, 2011).

Alford (2015) suggests a framework to orient a good governance, whose purposes are: 1) the common good, intended as "delivering value by serving society" and 2) the dignity and value of people. Coherently, behaviors needed to achieve these purpose are: solidarity (other peoples "matters"); subsidiarity (freedom with responsibility); reciprocity (building trust and trusted relationships); plurality (valuing diversity and building "bridges"); sustainability (stewardship of people, values and resources).

Governing and running a company then requires exercise a leadership based on values such as caring, people-centredness and integrity, so as to ensure its prosperity founded on transparency, accountability and responsibility (Von Ahsen, 2015; Oreg & Berson, 2011). Literature distinguishes between authentic and pseudo-transformational leaders (Bass & Steidlmeier, 1999) and focuses on "authentic leadership" as a "root-construct" and a vital component of good leadership and governance (Luthans & Avolio, 2003).

3. EXEMPLARY CASES OF ETHICAL AND RESPONSIBLE LEADERSHIP AND GOVERNANCE

3.1. Methodology

In order to verify if and how a moral-based model of leadership and governance can be applied in the business context, four Italian companies have been selected from Italian database related, respectively, to companies monitored by the ISVI Italian Observatory (*Istituto per i valori d'impresa* – Institute for the Company's Values) and included among the excellent companies (Marchegian excellent companies – Istao, 2014). The selected companies have been distinguished for the excellence of their governance, management and strategic profile and over the years have implemented many actions and accountability tools (Del Baldo, 2010a; Del Baldo, 2013b; Del Baldo, 2014; Baldarelli & Del Baldo, 2015). Some of them have been awarded by national and international organizations (i.e. Sodalitas, Legambiente, Great Place to Work Institute).

The empirical study was developed according to a qualitative approach and a case study methodology (Eisenhardt, 1989; Yin, 2003; Naumes & Naumes, 2006). Indeed recently, scholars have called for a return to in-depth methods, such as narrative and case-studies (Gartner, 2007) that are valuable for generating theoretical propositions (Eisenhardt & Graebner, 2007) and for actively contributing to face business challenges through the direct involvement of managers, practitioners, entrepreneurs and scholars (action-research approach) (Contrafatto, 2011). Specifically, the use of case-studies is appropriate to critically evaluate innovative leadership and governance model at the bases of authentic CSR and sustainability-driven strategies (Del Baldo, 2013a).

Data have been collected through a variety of sources: 1) interviews addressed to the entrepreneurs, the top and mid-management team, as well as internal collaborators, local partners and external stakeholders; direct observation during company visits, meetings, and focus-groups); 2) documental analysis (relative to social and sustainability reports, ethical codes and information available on the company website) as well as technical, managerial and scientific publications refereed to the selected enterprises and 3) direct observation, since the companies have for years been involved in different forms of collaboration (interventions in entrepreneurship education initiatives, workshop and conferences.

The period of analysis is multi-year (starting from 2012 and still in progress). Table 1 summarizes the essential attributes of the selected companies.

Table 1. A brief picture of the Companies' profile

Company's name	*Ownership and size*	*Economic Sector and Activity*	*Italian Region*	*Year of foundation*	*Market*
BoxMarche Spa	Not listed; Family based company (open to external members) small-sized company	Paper industry: design and production of packaging for the food and house-ware sectors	Marches	1969 50 employees	Mainly National
Elica Group	Listed: majority family-owned large company	Mechanics end Electrical equipment: motors for home appliances and central heating boilers	Marches	1970 over 3,000 employees	Mainly international
Loccioni Group	Not listed; Family-owned medium-sized company	Electronic industry: electrical and automatic equipment; plants-design-robots; automotive ;integrated technologies for environmental monitoring and quality control; biomedicine and medical equipment; equipment for the management of domestic energy (green energy); training courses and consultancy for technical and management education	Marches	1968 more than 300 employees	Mainly international
SGR Group	Not listed; Family-based company medium-sized	Multi-utility Gas-energy sector: distribution of natural gas and electric energy	Emilia Romagna	1956 330 employees	Regional, national and international

BoxMarche Spa

The BoxMarche's mission is "a call to reach the summit", that is to be an excellent company based on solid principles, such as: partnership, the centrality of the person, constant improvement, respect for environment and territory; trust and transparency among relationship with stakeholders, with a particular attention to the local community [2].

The firm is characterized by the following specific attributes: 1) the presence of a framework of ethically connoted values shared by the company's leaders (entrepreneurial and family owners, managing director) and spread throughout the organization; 2) the adoption of a wide range of CSR strategies and environmental certifications; 3) the publication of a "global report" (a comprehensive accountability tools which includes the financial, social, environmental and the intellectual capital reports); 4) a number of recognitions/awards received for its robust CSR-driven profile (at local and national level) and 5) a distinctive sensibility in disseminating best practices.

A true art thrives in BoxMarche - the art of running a harmonious business by reconciling economic objects and human interests on a day-to-day basis. BoxMarche has "a soul", that is a proper character, which is the fruit of the set of values and principles ingrained in its mission and translated into its governance. The firm is conceptualized as a "narrative identity" that "tells its story" of generating value.

Responsibility and sustainability are not considered as a mere opportunity for improving the firm's visibility and reputation but are experienced as a "way of doing business" since they are motivated by intrinsic motivations related to moral reasons (Jenkins 2006). Values and ethical principles (which are shared among the entire organization) orient strategic decisions and reinforce the organizational culture. Accordingly, the conviction that permeates BoxMarche is that entrepreneurial and managerial leadership founded solidly on ethics, has greater probability of emerging and ensuring competitiveness and resilience.

"*The true roots of BoxMarche and of many Marchegian entrepreneurs, can be traced back in the agrarian culture based on the Christian doctrine, and which became the foundation for sustainable, authentic and humane socio-economic development. The management of BoxMarche is the classic demonstration of a category of entrepreneur who has embraced the precious education inherited from one's ancestors: the fundamental values of family, faith, work, commitment, energy and courage. It is the reason why the company stands out, a badge of honor for our land*" (Don Lamberto Pigini, President of Pigini Group, partner, 2013).

"*We have an emotional tie to our territory. We want to use our abilities to sustain the local economy. Our activities are not only business choices but are networks made, first and foremost, by human beings*" (T. Dominici, Managing director of BoxMarche, May 23rd, 2012).

"*Perhaps it's a little presumptuous, but we love to define ourselves as the agents of civilization. The small entrepreneur is a "builder" (of activities, of men, of wealth). Our firm embodies a narrative identity and tells a story. For this reason, it has a soul linked to the spirit and dignity of the persons and is called to a great responsibility, inasmuch we have inherited the land from our fathers, but we also have it on loan from our children*" (T. Dominici, Managing director of BoxMarche April 5th, 2011).

Even though a family-based economic subject exists, everyone in BoxMarche shares values and strategies. The frequency of the board's meetings (held weekly) is directed toward minimizing clashes. The board of directors includes independent councilors and minority shareholders and is extended to representatives of employees. Moreover, tax breaks and services for partners and shareholders (specific initiatives, promotions, dedicated services and products, training projects and tutoring activities) are provided.

From the social report (published in 2003) BoxMarche went on to add an integrate report (Eccles & Krzus, 2010) which strengthens an authentic dialogue among all stakeholders and that has been awarded in 2008 as the best national example of accountability tool adopted by SMEs. Specifically, the global report devotes ample space to describing the structural composition of the shareholders, compensation of administrators, and distribution of profits.

"*We provide constant updates on the management of the company to our stakeholders; we have therefore provided, in addition to the annual balance sheet, the illustration and audit of the triennial plans and budgets. Moreover, open-house meetings during the year aimed at specific categories of stakeholders, regional and local meetings and stakeholders forums to presented results and discuss future objectives are organized*" (T. Dominici).

"*We believe that the global report is the best instrument for spreading the value of maintaining our ethos, which drives us forward with enthusiasm and love toward everything we do. It's a form of communication that allows us to share our particular reality with every stakeholder*" (S. Pierfederici, Letter from the President, Global Report).

Elica Group

Elica's approach to sustainability is integrated, shared, effective, since it addresses all aspects of corporate activity, both the strategic as well as the operational levels. The Group has obtained a number of awards and recognitions that formally acknowledge the genuine commitment to stakeholders, with a particular focus on human resources. It is among the leading attractors of talents in Italy. For years it is included among the "Top Employers Italy" and it was awarded in 2011 as the best Italian companies to work for by the CRF Institute which recognized Elica (whose subsidiaries are spread worldwide) as "a company excelling in the management of human resources" (CRF, 2012). Moreover, it was recognized as "Best place to work 2011 Italy and Europe" by the Great Place to Work Institute, which evaluates over 1,000 businesses throughout Europe to identify the best work environments (Del Baldo, 2013c). The Ermanno Casoli Foundation, in the memory of the founder of Elica, was established in 2007 in order to strengthen the link between the worlds of the arts and industry, promoting initiatives in the field of contemporary art.

"*For us, human capital is a competitive edge of the highest quality; it's fundamental for overcoming the challenges of international competition. Elica is for us an engine through which passion, experience, innovation, well-being and listening to internal and external needs can create an impression on our surrounding environment*" (F. Casoli, President of Elica Group, 27 May 2011).

"*We are very proud of these awards, which recognize the bounty and continuity of the work that we're doing. The first objective of human resources management is to give support to the company in order to create for its people the best conditions for personal and professional development and provide the necessary tools for them to become the main actors in their own growth with the same willingness dedicated to the group's growth*" (E. Zampetti, HR Manager, 12 June, 2011).

"*Excellence cannot be created if we do not live in a workplace which practices excellence in the care of the individual, both within and outside the workplace environment. From this starting point, Elica Life was created, whose objective is to provide to employees a series of services in line with their needs, to improve their lifestyle and to create a direct contact with the company – establishing more than a mere professional relationship. In this context, the welfare and the work life balance initiatives drawn up by Elica are placed*" (CEO, 10 September 2011).

In Elica the ethical-driven orientation of the top management opens the field to a form of governance founded on trust, relationships, transparency and communication. The leader's values that the founder of Elica injected into the business (i.e. work ethic, and the importance given to individuals) have been reinterpreted in a dynamic way by the successor in managing the diversity of the Group's stakeholders and employees.

Elica sees the relationship with its employees – who share the firm's operational and strategic objectives as source of reciprocal collaboration. The Group enjoys an authentic rapport with its stakeholders, centered on reciprocity, that is, a capacity to converge, or to go in the same direction. Goals, expectations, visions, values are constantly reinforced through diverse channels of communication (direct relations, organizational practices, processes of governance based on transparency, sharing and democracy), inside and outside the firm, and through a plurality of forms of stakeholder dialogue and engagement and commitment (Zamagni, 2007).

Loccioni Group

Enrico Loccioni's entrepreneurial venture represents an excellent example of an evolutionary path (started in the 1960th) taken toward a knowledge-based business, centered on the principles of tradition and innovation [3]. At the same time it exemplifies the industrial processes of many Italian small towns launched first by entrepreneurs who gave value to the heritage of customs, traditions, civil conditions that their sharecropper ancestors had left. This inheritance of co-responsibility is deeply entrenched in the Marchegian spirit and culture based on solidarity, good sense, wisdom, prudence, work ethics and neighbourliness. Nowadays the Loccioni Group is included among the Italian best performing companies (Marchegian excellent companies – Istao, 2014) and has been recognized as "the best place to work" and "top employers company" 2014 by the CRF and the Great Place to Work Institutes (CRF, 2012). Moreover, a multitude of recognitions have been attributed both to the founder (Enrico Loccioni) and to his Group: for the excellent level of innovation, the authentic implementation of CSR and sustainability-oriented projects and the genuine ethical orientation (i.e.: the Sodalitas Social Award in 2005, 2008 and 2009, for "Internal Processes of CSR and network enterprise model", the "Metalmezzadro project in the knowledge-based business" and "Sustainability Projects"); the "Business and Culture" Award in 2003; the Legambiente award (for the "Leaf Community Project: Leaf Energy and Future" and for being a partner of the European Commission in the Sustainable Energy Europe Campaign); and the "Olivettiano Business of the year 2008" by Ernst & Young.

"*I had the opportunity to meet him (Enrico Loccioni) the first time in the early Sixties, as a supplier and installer of electrical equipment at our plant. I followed his "take-off" and his high flying" with admiration*" (F. Merloni, Ariston Thermo Group, Preface, in Bartocci, 2011: 11).

The culture of the whole Group is based on the following shared values: Imagination (being capable of creating); Energy (the capability to dream and to accomplish one's dreams); Responsibility (for the air that we breathe, the land that we walk on, the resources that we utilize, and the trust that we earn); and Tradition & Innovation. These values are connected to a renewed model of humanistic management which was firstly envisioned by the famous Italian entrepreneurs Olivetti (Camillo, the founder and his son Adriano), the first in Italy to produce typewriters and computers near Torino (Olivetti Group). Their model of holistic development conceived the business as a tool for promoting social, economic, moral and environmental well-being, thus implementing through concrete actions, business and social projects based on employees and collaborators. This way of "being and doing" business has deeply influenced the Italian social and cultural context and is proof of how it was (and is) possible to think of a business model that is very real, based on the following principles: the close relationship with the university and the entrepreneur scientific culture; the continuous contact with the most innovative foreign companies; the enhancement of the contribution of loyal and tenacious employees; the enhancement of the ability to craft and use creativity, and aversion to repetitive and prolonged work; the factory conceived as a school laboratory, which helps build the knowledge society; an effective leadership, based on the profound knowledge of men and things, and the ability to obtain them without control; the employment relationship based on the principle of equality between men (work made by men who are equal); the commitment to build a true democracy within the community to which they belong; the desire to produce a lot of great products; a governance centered on people of high moral standing, aimed at searching for results in the long term, free from a speculative mentality; the idea of social enterprise as

a space capable of recognizing the legitimate aspirations of each person (See: Lacaita, 2008, *The Adventure of Camillo Olivetti*: 23).

"*The work ethics is based on the enthusiasm that opens a virtuous circle. The enthusiastic person is strong, positive, and produces on those around him the impact of a natural leader*" (R. Libenzi, General Manager, 2014).

Loccioni Groups' moral and virtues-based leadership approach has been developed by its charismatic founder, Mr. Enrico, who has been (and still is) able to pass on his passion and motivation to his collaborators by creating an organizational value based identity. He has been capable to embed his motivation into the company and the employees by caring for employees and adopting a participatory decision making processes, thus sharing responsibility with them.

"*I had and I have the dream to create a model of a company aware of its social role, of its future in the territory and the world; we desire to be the creators of the future rather than just mere spectators. To nurture this dream, people must understand the future they want for themselves and for the group*" (E. Loccioni, President of the Loccioni Group, March 23rd, 2014).

"Take care of this piece of land where the company is located, to stay here where our roots are, trying to add value to people and the environment, is my (and our) great enterprise. We want to spread a new work culture based on passion, enjoyment and beauty. To network with the territory, with its institutions, its cultural and economic community is essential for me and for us. Our young people (employees and external collaborators) are passionate about doing their job well. Seeing them with a smile in their eyes, seeing their respect and sense of fair play in the work place is something which fills my heart with joy and affection. There must be a passion for continuous improvement because as a friend of mine, a village priest, said: the best thing we can do is leave things in a better way than how we found them as we have received more than we have given" (E. Loccioni, President of the Loccioni Group, July 20th, 2013).

From these speeches the charismatic personality of the leader emerges, his ability to interpret the reality through a different outlook and to transform problems into opportunities for the community and for business (Bruni & Sena, 2013). The afore stated values and principles have driven the Loccioni Group to take care of the Esino river, which twice in the past damaged the company when it flooded. A specific investment project called "Flumen" (which involves five towns and the local public institution) has been implemented to reinstate the river course to its original position, to drain and clean up the dunes, preserve the fauna and flora biodiversity. At the present time the two kilometres of "river auction" are a fluvial laboratory for the measurement and prevention of ecological disasters. It is an example of good practice in "social imagination" which refers to the love of the territory and the fusion of innovation and tradition (Varvelli & Varvelli, 2014).

"*Why spend money on something that is not mine? I saw an opportunity in the river, not only a threat. With the biomass (hydropower) energy we will repay our investments and the benefits will be shared by the entire community. And, most importantly, I returned the territory to its history and its beauty of 50 years ago*" (E. Loccioni, January 26th, 2014).

A further examples of the authentic orientation to the common good is provided by many other projects, such as the Leaf Community and the Chemo Apothecary.

"*The leaf community is something like a philosophical current and religious faith. The leaf house is inhabited on the top floor by transient guests, and the other two floors are permanently inhabited by young people working in the Group. However, this house does not produce an ounce of the dreaded CO2. It does not consume a single watt of electricity, nor does it waste even half a liter of water*" (Bartocci, 2011: 89 and 91).

"*As a first point, the centrality of the Humancare project lies in the word human, that is the centrality of the man, a fundamental asset of this company. And, so the health line of the Loccioni Group has already taken consistency in the Chemo Apothecary, a system for automatic dispensing of chemiotherapy drugs, first in the world and produced by Loccioni researches*" (Bartocci, 2011: 105).

SGR Group

The mission of SGR Rimini is structured around the following "milestones": (1) the values profile of the founders and the top management team; and (2) an attention to responsibility, taking care of the local community and the environment, as well as the development of human resources; 3) transparency and social relations, and 4) the centrality of dialogue with the stakeholders [4].

The importance that SGR has attributed to authentic relationships comes from the past; going back to 30 years to the history of the group's business activities, the supply of methane gas to the area and the country, represents a strong relationship with the territory. The group is in fact a "territorial company" (Del Baldo, 2010b) which spreads the culture of sustainability through a wide variety of initiatives. It actively contributes to building a model of sustainable local governance, promoted by a network of public and private operators (universities, institutions and non profit organizations) which activate mechanisms of participation in the socio-economic fabric aimed at the common good.

The President of the Group is a woman - Dionigi M. - who acts as a charismatic leader and reference point for the company, whose values have been inherited from the founders and interpreted in coherence with the changed internal and external environmental context. Throughout difficulties and challenges, she has combined humility with tenacity, determination, the spirit of sacrifice and energy. Her relational approach can be translated into the principle of the "door being open" to each collaborator. Democratic participation, trust and relationships characterize SGR governance.

"*We are known as an innovative and dynamic multi-utilities company, respectful of the environment which is greatly tied to the territory and the community. Our sustainability report is a process of dialogue with all the protagonists of context in which the SGR Group operates and which contains*

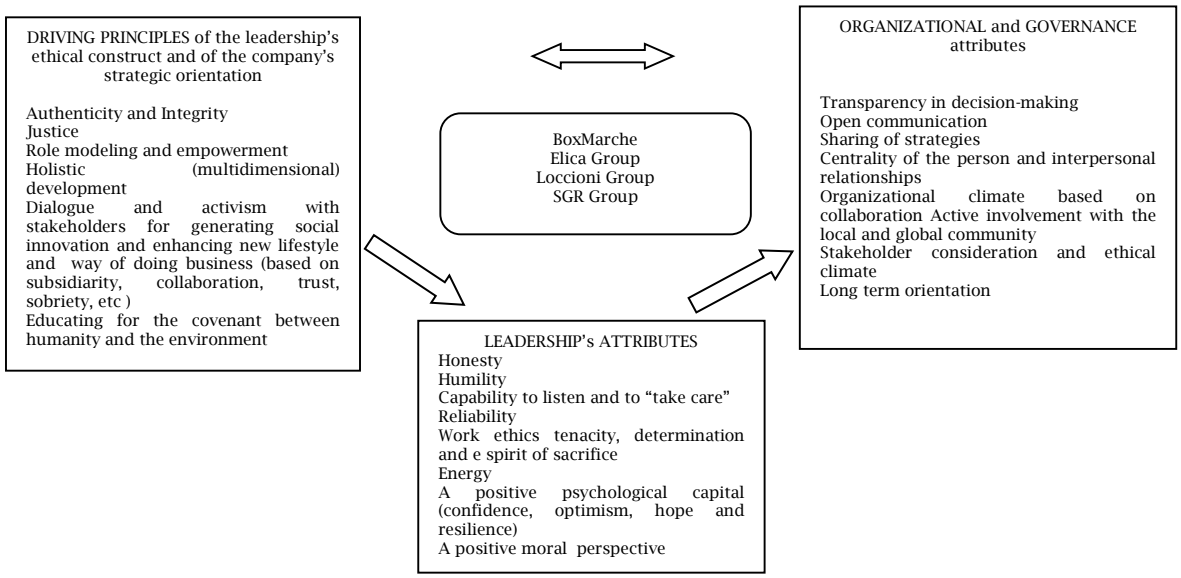
challenging objectives on which we will concentrate our efforts. It is the story of a live experience with the territory, the community and our stakeholders (M. Dionigi, President, May 2012).

Being a family owned (and not listed) company SGR maintains the characteristic of intra and inter-organizational relational closeness. This quality typically enriches the social capital of the family businesses (Aragón Amonarriz & Iturrioz Landar, 2016), facilitates stakeholders dialogue and engagement and allows for the development of a sustainability-oriented process. The centrality of relations lies in the centrality of the person. From the interviews conducted with the sales manager of the group, it is evident that values contained in the corporate mission are shared and embraced in the relationships between employees: professionalism, dedication to work, simplicity in colleague relations and reliability.

"*Over the years the organization has become less hierarchical and increasingly more orientated towards team work, aiming to seek a dynamic balance between singular dimension and plural dimens*ion" (SGR Sales Manager, 2013).

Finally, a picture aimed to summarize the relationship among driving principles, leadership attributes and governance related to the four companies, is presented below (Figure 1).

Figure 1. An interpretative model: leadership-governance-driving principles



4. CONCLUDING REFLECTIONS

The paper focuses on entrepreneurial/managerial leadership and governance models in relation to responsible and sustainable-driven strategies. With reference to the research questions mentioned in the introduction the leadership and governance models that emerge from the cases analysis are oriented to developed both knowledge, performance and values (which explain the "sunken" or intrinsic reasons for a responsible and sustainable orientation) in order to transform businesses into good places in which "one can work and live a good life". Entrepreneurs and managers are willing to exercise good acts, which are essential for the long-term success of the company, founded on a multidimensional - ethical, economic, environmental and social - development. Attention then shifts on a renewed entrepreneurial/managerial ethos which acts as a key driver of leadership and governance's models and guides the company to view responsibility and sustainability as processes which deeply interlink the corporate and community. The responsible leaders aim to excellence in results for the company and for all stakeholders (Avery, Bergsteiner, 2011).

The analysis demonstrates that for affecting and transforming the business decision-making an authentic responsible orientation needs to be implemented and diffused, beginning from the entrepreneur and the top management, and incorporated within the entire organization (McIntosh et al., 2003). A leadership example is therefore extremely important, as is at the basis of the organizational integrity (Paine, 1994) which requires an alignment and an ongoing interaction among organization's stated values, tacit beliefs, strategies and every day decisions and activities. To this end, a positive and pragmatist ethics fosters engagement, negotiation and contestation (Wicks & Freeman, 1998) and finds its expression in a truly democratic process, which allows all stakeholders to participate in forging agreements that sustain a shared sense of community (Dewey, 1994). Accordingly, shared values act a "social grammar" that emphasize interrelatedness, interdependency and integrity in all business strategies and operations.

Moreover, the empirical analysis shows not so much original business experiences, but rather companies where the gap between the declared and shared values is reduced and people are really engaged in the pursuit of the common good (Borgato, 2014). Therefore, we can summarize the following lines of reflection.

First, the study underlines the importance of a courageous and ethics-driven leadership capable of inspiring in others (people and companies) the positive will to emulate it and to contribute to the progress of individuals and the socio-economic

contexts (near and far) (Del Baldo & Demartini, 2010 and 2012).

Second, it stresses the relevance of a charismatic and authentic leadership, characterized by a positive psychological capital and moral perspective (confidence, optimism, hope and resilience) (George, 2004) and capable of nurturing and presiding over changes in value (Schein, 1990) and forging the organizational culture.

Third, the moral framework of the leaderhip model affects the governance model which is based on sharing, transparency, and relational approach centred on trust. The decision-making based on collaboration and participation provides organizational strength and reinforcse the organizational culture being based on the following pillars: stakeholder consideration and ethical climate (which translate into inclusion of stakeholders in decision making processes); integrity (which translates into more than a mere compliance with the rules, aimed at generating a shared perception of organizational justice: distributive - remuneration, transparence, fairness and interactive - between collaborators); role modeling and empowerment (which enhance the growth of the employees, their autonomy and creativity); sustainability and long-term orientation.

Finally, findings underline how ethical leadership models based on authenticity and integrity act in promoting a cultural reorientation inside and outside the company, valorizing relationships with stakeholders and favoring trust and fairness, enabling cooperation, encouraging the sharing of information, and therefore concretize good models of entrepreneurial leadership and governance.

NOTES

[1] Moral behavior is defined as the ability to implement justice requirements derived from a fair distribution of rights and duties in a demanding operational context (Greenberg & Colquitt, 2005).

[2] For a more detailed analysis of this case, see: DelBaldo, 2010b

[3] For a more detailed analysis see: Del Baldo, 2013b

[4] For a more detailed analysis of this case, see: Baldarelli Del Baldo, & Nesheva-Kiosseva, 2014.

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CAPITAL BUDGETING PRACTICES: AN EMPIRICAL STUDY OF LISTED SMALL EN MEDIUM ENTERPRISES

John H. Hall*, T. Sibanda

*Department of Financial Management, University of Pretoria, Republic of South Africa

Abstract

There have been many studies on the capital budgeting practices of large listed companies, but relatively little research has been undertaken on the capital budgeting practices of small listed companies. The main purpose of this study was therefore to analyse the capital budgeting practices of small and medium South African listed companies and to compare their capital budgeting practices to the capital budgeting practices of large listed companies. The results of the study indicate that the primary capital budgeting techniques employed by small listed companies are based on the IRR and the NPV, resembling the practices used by larger companies. Furthermore, the use of discounted cash flow techniques amongst small listed companies had increased over the last decade.

Keywords: SME's, Capital Budgeting, South Africa

1. INTRODUCTION

The capital budgeting techniques used by firms has been widely researched across the world. The findings of studies conducted from the 1970s to the present show that firms generally prefer to implement sophisticated capital budgeting techniques, although they do so to different degrees. However, in the 1970s researcher already started questioning the applicability of capital budgeting theory to small and medium enterprises (SMEs). Some studies confirmed that SMEs have a number of unique characteristics and face various external and self-imposed challenges that reduced the applicability of existing capital budgeting theory to SMEs. These studies showed that SMEs actually implemented elementary capital budgeting techniques, such as the payback period (PBP), instead of the more sophisticated net present value (NPV) approach (Grablowsky and Burns, 1980; Runyon, 1983; Lazaridis, 2004). These capital budgeting choices by SMEs seem to be a direct consequence of SMEs' characteristics, and of their challenges in acquiring external funds for investment purposes.

Research conducted on SMEs and their capital budgeting techniques, both in South Africa (Gilbert, 2003; Fatoki *et al.*, 2010) and internationally (Pattillo, 1981), has focused predominantly on small businesses operating in specific sectors, such as manufacturing. Two studies on South African companies by Brijlal and Quesada (2009) and by Olufunso *et al.* (2010) investigated small businesses, concentrating on the capital budgeting practices of business in specific geographic areas. Soldofsky (1964) and Andor *et al.* (2011) also investigated the capital budgeting practices of SMEs, focusing on SMEs in specific regions of the United States (US) and Europe.

Companies listed on the Alt X Exchange of the Johannesburg Stock Exchange (JSE) are classified as small businesses, but they possess special characteristics, such as being publicly listed, which provides them with greater access to capital. Alt X-listed companies also operate in a distinctive environment where their shares trade in a regulated market, in contrast to the shares of their unlisted counterparts. In addition, they are also obliged to publicise their financial statements, which allows external investors greater access to information than is available for unlisted companies. These distinguishing factors suggest that the capital budgeting practices of Alt X listed companies may differ from both those of larger listed companies, and those of unlisted companies. Extensive searches through older and more recent economic and financial publications revealed that although several studies have investigated the capital budgeting practices of unlisted SMEs in South Africa, not much attention has been paid to the capital budgeting techniques and practices of the SMEs listed on the Alt X.

The main purpose of this study was therefore to analyse the capital budgeting practices of the small and medium companies listed on the Alt X and to compare their capital budgeting practices to those of companies listed on the main board of the JSE. The study was guided by the following research objectives: to identify the capital budgeting techniques used by companies listed on the Alt X; to identify the capital budgeting technique most favoured by the Alt X-listed companies; to compare the capital budgeting practices of companies listed on the Alt X to those listed on the main board of the JSE; and to determine the companies' use or non-use

of a specific discount rate in their capital budgeting practices.

This study aims to contribute to the existing capital budgeting literature on listed SMEs. Companies listed on the Alt X could also derive some practical benefits from the study, as they will be able to compare their practices to those of their peers on the Alt X and to those of their larger counterparts listed on the main board of the JSE.

The remainder of the paper is organized as follows: a literature review is presented in the next section, discussing the capital budgeting practices of companies in recent decades, and comparing the findings of prior studies on larger companies to those of studies on SMEs. Next, the research method used in gathering the data by means of a questionnaire is discussed, followed by a discussion of the empirical results. Finally, the conclusions and recommendations based on the results of the study are presented.

2. LITERATURE REVIEW

Capital budgeting practices are frequently researched in corporate finance. Over the last few decades, there has been a marked escalation in the use of sophisticated capital budgeting techniques (Farragher *et al.*, 1999), in contrast to earlier practices noted in earlier studies, such as those conducted by Klammer (1972), Gitman and Forrester (1977) and Kim and Farragher (1981). Farragher *et al.* (1999) found that higher percentages of US firms were implementing sophisticated capital budgeting techniques: 80% of their respondents revealed that they preferred the internal rate of return (IRR) as a primary technique in evaluating potential projects, and 78% of respondents used the NPV approach as a primary evaluation measure. Farragher *et al.* (1999) also found a decline in the use of capital budgeting techniques such as the payback period (PBP), which was used by only 52% of the respondents in their study, a noteworthy decline from the 84% level of PBP use found by Bierman (1993), just six years earlier.

Ryan and Ryan (2002) conducted an extensive study of the capital budgeting practices of the Fortune 1000 companies. Contrary to the findings of several previous studies which found evidence of widespread use of the IRR by most respondents, Ryan and Ryan (2002) found that the implementation of NPV among respondents (96%) exceeded the implementation of the IRR method (92%), and found a significant correlation between the size of the capital budget available to a company and its subsequent choice of capital budgeting method. Bennouna *et al.* (2010) investigated the capital budgeting practices of large firms, and also found a greater preference for the NPV than for the IRR technique.

A number of studies were conducted in the 1980s on the capital budgeting techniques of large South African companies. The findings suggested that the capital budgeting technique most implemented by these companies was the IRR. At the turn of the century, Hall (2000) investigated the capital budgeting practices of South African industrial companies listed on the JSE, revealing a decline in the use of the IRR technique (32%), compared to a 45% use reported by Andrews and Butler (1986). Of the companies surveyed in 2000, 17% were implementing the NPV approach, a noteworthy rise compared to only 8% recorded in 1986. Hall's (2000) findings suggested that large South African companies were progressing towards the implementation of sophisticated techniques, even though the NPV approach generally recommended by academics remained under-used. Hall's (2000) study revealed that the capital budgeting method used by a company tended to be influenced by the size of the company's annual capital budget.

More recent studies of large South African firms listed on the JSE have revealed that the capital budgeting practices adopted are similar to those used in the US. Correia and Cramer (2008) reported that in 2008 listed South African companies in their sample were using the NPV technique more (82%) than the IRR (79%), and that only 54% used the PBP. Two years later, Hall and Millard (2010) investigated the capital budgeting practices of companies listed on the JSE, and reported that the NPV, the theoretically superior measure, was the preferred technique for 29% of the respondents, followed by the IRR, which was being implemented by 24% of the respondents. The higher use of the NPV technique in comparison to the IRR is consistent with findings from the study by Correia and Cramer (2008).

The findings from the studies discussed above reflect the fact that large unlisted and listed companies have gradually begun to implement more sophisticated capital budgeting techniques over the last three decades. However, researchers from as early as the 1970s, such as Deek (1973), have questioned the general applicability of existing capital budgeting theory and studies to SMEs. They have observed that SMEs have a number of distinctive characteristics and operate under financial conditions and constraints that raise questions about the applicability of traditional capital budgeting theory to SMEs.

Several studies, for example by Ang (1991), Keasey and Watson (1993) and Chadwell-Hatfield *et al.* (1997), have considered the objectives of some small companies, which is not necessarily the maximisation of wealth objective pursued by larger companies, which could explain why some SMEs use capital budgeting techniques other than the theoretically recommended NPV. These objectives include maintaining the independence of the business (Ang, 1991) or the viability of the enterprise (Keasey and Watson, 1993). Chadwell-Hatfield *et al.* (1997) reported that the managers of the SMEs included in their survey indicated that they would disregard the NPV technique and the value-maximising of investments and would rather use techniques such as the PBP and the accounting rate of return (ARR), because the latter two methods are more widely understood and accepted by stakeholders outside the financial operations of the company. Using the NPV technique may this be less helpful to SMEs that pursue objectives that are not necessarily related to wealth maximisation.

Brink *et al.* (2003) investigated the unique circumstances of small businesses in South Africa. Respondents indicated that their greatest financial challenge was obtaining finance or credit. Capital

constraints in small unlisted companies could influence their capital budgeting techniques. A study on small companies by Danielson and Scott (2006) identified factors that may cause self-imposed capital constraints in SMEs. For example, they found that 45% of the companies in their sample would rather delay making a promising investment until it can be financed with internally generated funds. The limited internally generated funds make the time horizons of proposed projects important to SMEs, as projects with shorter payback periods make funds available sooner to fulfil the current obligations of the company as they become due. These constraints also result in increased use of the PBP technique in capital budgeting. Brigham (1992) argues that in some cases, small firms resort to using 'gut feel' to analyse proposed projects, as the costs associated with using sophisticated techniques are too high in relation to the size of the projects being assessed.

The alternative objectives of SMEs identified as possibly having an effect on their capital budgeting decisions and the capital constraints they face could make pre-existing capital budgeting theory less appropriate when trying to understand the capital budgeting decisions of SMEs. The limited amount of funds available to SMEs makes evaluation of proposed projects through effective capital budgeting techniques particularly important for them. However, the costs associated with using sophisticated capital budgeting techniques and the difficulty in determining a discount rate could make it challenging for SMEs to implement discounted cash flow (DCF) techniques.

One of the earliest studies of capital budgeting in SMEs was conducted by Soldofsky (1964), who found that the capital budgeting technique that most of the respondents in his study preferred was the PBP, and that none of his respondents used the IRR or NPV in their project evaluation processes. He attributed these findings to a combination of factors, including management's lack of understanding of capital budgeting techniques in general, and the costs associated with hiring an external consultant to assist in the process. Pattillo (1981) reported that 75% of the financial officers in his sample did not use DCF techniques because of the complexities involved in quantifying the required inputs. Danielson and Scott (2006) found that in the capital budgeting decisions of SMEs in the US the primary technique that firms used to assess a project's financial viability was the unsophisticated 'gut feel' or 'intuition', used by 26% of the respondents. The next most popular method was the PBP (19%), followed by the ARR (14%). DCF techniques were only employed by 12% of the respondents of their US study.

Andor *et al.* (2011) argues that SMEs are less likely than larger firms to use sophisticated capital budgeting techniques, because SMEs do not have the necessary expertise to conduct the formal capital budgeting processes required by sophisticated capital budgeting techniques. Moreover, they found that firms with international exposure were more likely to use formal analysis than small locally owned independent firms. Similarly, Baker *et al.* (2010) observe that 'one size does not fit all' in corporate finance practices. They note that there are important institutional and other differences between countries in areas such as corporate governance, ownership structure and firm size, and that such differences appear to influence the managerial decisions made by companies in the various countries in respect of their financial practice choices.

In South Africa, the investigation of the capital budgeting behaviour of small and medium firms has only received attention in more recent years, for example, in studies by Gilbert (2003), Brijlal and Quesada (2009) and Fatoki *et al.* (2010). Gilbert (2003) found that a combination of the various techniques was used, and that the PBP was the most popular at 79%, followed by the return on investment (ROI) at 72%, the IRR (42%) and the NPV (47%). On the basis of Gilbert's (2003) results, it seems that there is a difference between the capital budgeting practices of small South African firms and those of their US counterparts – none of the US respondents in Danielson and Scott's (2006) study used ROI. However, the use of ROI was evident even amongst large South African firms in studies conducted by Hall (2000) and Gilbert (2003).

Brijlal and Quesada (2009) also investigated the capital budgeting practices of SMEs in South Africa. Their results confirmed the findings of Gilbert (2003) that small South African firms favoured the PBP as a primary tool in evaluating capital investments, with 39% of respondents selecting it. Brijlal and Quesada (2009) found no evidence of the use of ROI were found, but the profitability index (PI) was as popular as the NPV approach, each being preferred by 27% of the respondents, followed by the IRR (20%), and ARR (17%), and 15% of the respondents admitted that they did not use any formal technique (they relied on 'gut feel and 'intuition'). Fatoki *et al.* (2010) evaluated the investment appraisal techniques of small manufacturing firms in South Africa, and found that 69% of respondents did not use sophisticated investment appraisal techniques to make investment decisions and that most of respondents preferred the PBP as a tool for analysis.

Despite the different demographics of the populations investigated in each of the studies discussed above, they all seem to be unified by one common element, which is the finding of the relatively high use of elementary capital budgeting techniques such as the PBP by SMEs. The PBP as a capital budgeting technique is ideal to address capital constraints, as projects or investments are chosen according to their respective initial investment recovery periods; this liquidity could be a crucial factor for the financial wellbeing of an SME. However, the benefits of the PBP are negligible compared to the advantages of using capital budgeting techniques such as the NPV or IRR, even for smaller firms. The choice of unsophisticated capital budgeting techniques by unlisted SMEs revealed in studies such as those by Danielson and Scott (2006), Brijlal and Quesada (2009), Fatoki *et al.* (2010) and Andor *et al.* (2011) is attributed to the various challenges SMEs encounter, due to constraints such as low levels of relevant knowledge among decision-makers and external investor perceptions regarding SMEs' riskiness.

West (2008) conducted the only prior study similar to the current study, looking at the capital

budgeting practices of companies listed on the Alt X. West (2008) found that 45% of his respondents used DCF techniques in evaluating new projects, and 64% applied non-DCF techniques in their capital budgeting decisions. The reliance on non-DCF techniques by this group of SMEs was similar to the results found in previous studies, such as those of Brijlal and Quesada (2009) and Danielson and Scott (2006), with regard to listed and unlisted SMEs. West (2008) found that none of his respondents used the PBP, but 36% used the earnings-multiple approach, an approach that can be considered a variation of the PBP technique. The IRR was used by 27% of West's (2008) respondents. These findings contrast with findings from other studies investigating the capital budgeting practices of small and medium unlisted companies in South Africa, such as those by Gilbert (2003) and Fatoki *et al.* (2010). West (2008) suggests that the superior capital budgeting practices used by Alt X listed companies could be indicative of the underlying characteristics associated with SMEs listed on the Alt X. The possible additional pressure applied by external investors could affect the capital budgeting choices these companies make, as they need to undertake projects that employ the capital provided by external investors efficiently in order to satisfy the investors through value maximisation of their investments.

The literature study revealed that little research has been conducted on the capital budgeting practices of SMEs, especially on listed SMEs in South Africa. Significant differences between the capital budgeting practices of large listed companies and SMEs have been found. The objective of the present study, to investigate the capital budgeting practices of listed SMEs, therefore fills a gap in the literature and will contribute to the body of knowledge on the subject matter of capital budgeting. In the research method section, the data gathering as well as the questionnaire design are discussed.

3. RESEARCH METHOD

One of the principal objectives outlined for this study is to gather primary data on the capital budgeting practices of companies listed on the Alt X. A questionnaire was deemed most appropriate for this purpose. A questionnaire was therefore issued electronically to the target population. At the time of the study (2012), a total of 62 companies were listed on the Alt X division of the JSE. At the commencement of data gathering, it was found that one company had delisted, eight companies had a primary listing on other exchanges, six companies had been suspended from the Alt X, leaving a target population of 47 companies. For the purposes of this study, a web page was created where respondents could access and complete the questionnaire anonymously. The web page was powered by Survey Monkey, an online survey software and questionnaire tool that allows users to create and distribute unique questionnaires based on their objectives and targeted audiences.

The questionnaire contained 28 questions. Section A of the questionnaire gathered information on the demographics of each respondent and the profile of the company that each respondent represented. Seven questions regarding the tenure of each respondent, his/her academic qualifications and the goals of the company were included in this section. Section B of the questionnaire collected data on various aspects of the capital budgeting process of each company. Respondents were asked to indicate how actively involved they are and how frequently they engage in the analysis of potential investments using capital budgeting techniques, the average size of the capital budgets they have at their disposal each year, as well as the primary and secondary capital budgeting techniques implemented by each company. The final section of the survey contained six questions related to the use of discount rates for capital budgeting purposes. Respondents were asked about the approaches they use in determining an appropriate discount rate and how often they recalculate it. As a preliminary test of the web page and the questionnaire, a pilot test was conducted. The data collected from the questionnaires were compiled in a data basis. The analysis of the data followed a content analysis approach and a limited statistical data analysis approach. The nominal data collected from the questionnaire were analysed using a statistical approach through functions embedded in the Survey Monkey software.

To increase the reliability of the data acquired from the questionnaire, respondents' answers were treated as anonymous and confidentially. The questions in the questionnaire did not contain ambiguous terms that might have had an effect on the responses, or that might influence respondents in any direction. To improve the objectivity of the data collected from the questionnaire, an unbiased target population was used and there were no leading questions in the questionnaire. Conducting the survey electronically, instead of telephonically or by means of personal interviews allows respondents to answer the questions without experiencing any bias from the interviewer. In an attempt to reduce non-response bias, two reminder e-mails were sent to the survey sample inviting them to participate in the survey if they had not already done so.

The primary objective of this study was to investigate the capital budgeting techniques of companies listed on the Alt X exchange of the JSE. The study aimed to investigate whether these companies still implemented the elementary capital budgeting techniques of typical SMEs, or whether their unique characteristics were reflected in their choice of an alternative capital budgeting technique. These objectives were pursued using the research design and methodologies discussed in this section.

4. EMPIRICAL RESULTS

Of the 62 companies listed on the Alt X exchange, a sample of 47 companies was asked to participate in the study. A total of 15 usable responses were received, representing a response rate of 32%. The demographic profile is discussed first, followed by the capital budgeting techniques employed and lastly the respondents' use of a discount rate.

Most respondents held the position of chief financial officer (CFO) (27%) or financial director (27%), followed by financial manager (20%), chief executive officer (CEO) (13%), and chief information

officer (CIO) (7%) and chief corporate accountant (7%), and 6% indicated their position as group financial manager. These results are comparable to those of previous studies, such as those of Baker *et al.* (2011), whose respondents were predominantly CFOs, and of Hall and Millard (2010), in whose study 50% of the respondents were financial managers. In respect of the duration of their tenure in the companies they represented, 53% of respondents in the current study indicated that they had held their current position in the company for a period of between one and five years, 40% of them for less than a year, and 7% indicated a period of five to ten years.

The highest number of respondents (47%) had a chartered accountant CA(SA) qualification, 27% had an Honours degree, 20% a Master's degree and 6% of respondents had a Bachelor's degree. Higher levels of academic qualifications were recorded in studies that investigated larger companies (Bennouna *et al.*, 2010), which found that 60% of their respondents held Master's degrees or higher, and 40% of respondents had Bachelor's degrees. Fatoki *et al.* (2010) observe that low levels of financial literacy can have an impact on the extent to which decision-makers in SMEs implement sophisticated investment appraisal techniques. Respondents from the current study exhibited stronger academic background than respondents in previous studies on both international and local SMEs (Danielson and Scott, 2006; Olufunso *et al.*, 2010).

The current study shows that 33% of the respondents are in the technology sector, 27% in the financial services sector, 13% in the retail and wholesale sector, and 13% in the construction industry. The remainder of the respondents were evenly distributed between the property and media sectors. The variety of sectors captured in this study is similar to those captured in the study by West (2008), and represents the various sectors of the Alt X. This distribution of participants reduces the sector-related bias that could have resulted if the respondents were concentrated in a specific industry.

In the second section of the questionnaire the respondents were asked about the frequency with which they use capital budgeting techniques to analyse potential investments or projects. Most of the respondents (67%) indicated that they implemented capital budgeting techniques 'often' when evaluating investment opportunities, 25% 'always' use capital budgeting techniques, while another 8% use them 'occasionally'. None of the respondents chose the 'never' or 'rarely' option.

A study conducted by Andrews and Butler (1986) attributed the increased use of sophisticated capital budgeting techniques implemented by large South African firms to the increase in the size of annual capital budgets available to those companies. This is similar to a finding by Graham and Harvey (2001). The table below summarises data regarding the sizes of the capital budgets available to Alt X listed companies in 2008 and in 2012.

Table 1. Change in the capital budget sizes of Alt X listed companies

Size of annual capital budget	*Findings from West (2008)*	*Findings from the current study (2012)*
Less than R5 million	42%	25%
Between R5 million and R10 million	0%	34%
Between R10 million and R50 million	42%	25%
Between R50 million and R100 million	8%	8%
More than R100 million	0%	8%
Unknown	8%	0%

Source: Data for 2008 adapted from West (2008), 2012 data generated by survey in current study

According to Ryan and Ryan (2002) the size of the annual capital budget available to a company is a significant factor in the selection of the capital budgeting techniques used. They found a positive relationship between the size of the capital budget and the use of the NPV and IRR technique. As shown in Table 1, the proportion of SMEs listed on the Alt X with annual capital budgets greater than R5 million increased from 58% in 2008 to 75% in 2012.

The results from the present study indicate that the most popular capital budgeting technique was the IRR (42%), followed by the NPV (33%). The results of the study conducted by West (2008) indicated that the primary technique favoured by Alt X listed companies was the earnings multiple approach (36%), followed by the IRR (27%) and finally the NPV technique (18%). Results from West's (2008) study illustrated that Alt X companies had a higher implementation rate of non-DCF techniques (55%) in comparison to the superior DCF techniques. The current study shows an improvement in the capital budgeting practices of companies listed on the Alt X, as it reflects that 75% of the respondents now employ DCF techniques as a primary capital budgeting technique, compared to only 45% in the study conducted by West (2008) four years previously.

The findings from the current study, which investigated the capital budgeting practices of companies listed on the Alt X, differ from the recent trends evident in studies on small unlisted companies in South Africa (Brijlal and Quesada, 2009), as well as on small companies in the US (Danielson and Scott, 2006). The study by Brijlal and Quesada (2009) found that 39% of unlisted SMEs in South Africa favoured the PBP as a primary tool in the evaluation of capital investments, followed by the PI (27%) and the NPV (27%). Danielson and Scott (2006) reported that the most common response amongst their US respondents was 'gut feel' or 'intuition' (26%), whereas in the current study only 17% of respondents chose this method. In Danielson

and Scott's (2006) study, 19% of the respondents relied on the PBP measure, and 14% used the ARR as a primary tool to assess the financial viability of a major investment. None of the respondents from the current study indicated that they use the PBP, the PI or the ARR as a primary capital budgeting technique. The studies of Brijlal and Quesada (2009), as well as of Danielson and Scott (2006) suggest that unlisted SMEs had a strong preference for non-DCF techniques,, in contrast to the findings of the current study.

In studies on South African data on large listed companies, Du Toit and Pienaar (2005) found that the IRR was the most popular method, followed by the NPV and the ROI technique, whilst Correia and Cramer (2008) revealed that the preferred technique among respondents to their study was the NPV technique, followed by the IRR and the PBP. Despite a slight difference between the findings of these two studies, they both showed that DCF techniques were the most implemented capital budgeting techniques amongst large listed companies. A comparison of the results from Du Toit and Pienaar (2005) and Correia and Cramer (2008) to results from the current study shows that the capital budgeting practices of the companies on the Alt X are consistent with those of larger listed companies in South Africa, confirming that the companies listed on the Alt X also implement DCF techniques as the primary techniques in their capital budgeting decisions. International studies by Ryan and Ryan (2002), and by Baker *et al.* (2011) found that the large companies they surveyed also preferred the NPV technique to the IRR as a primary capital budgeting technique, similar to the findings of the current study.

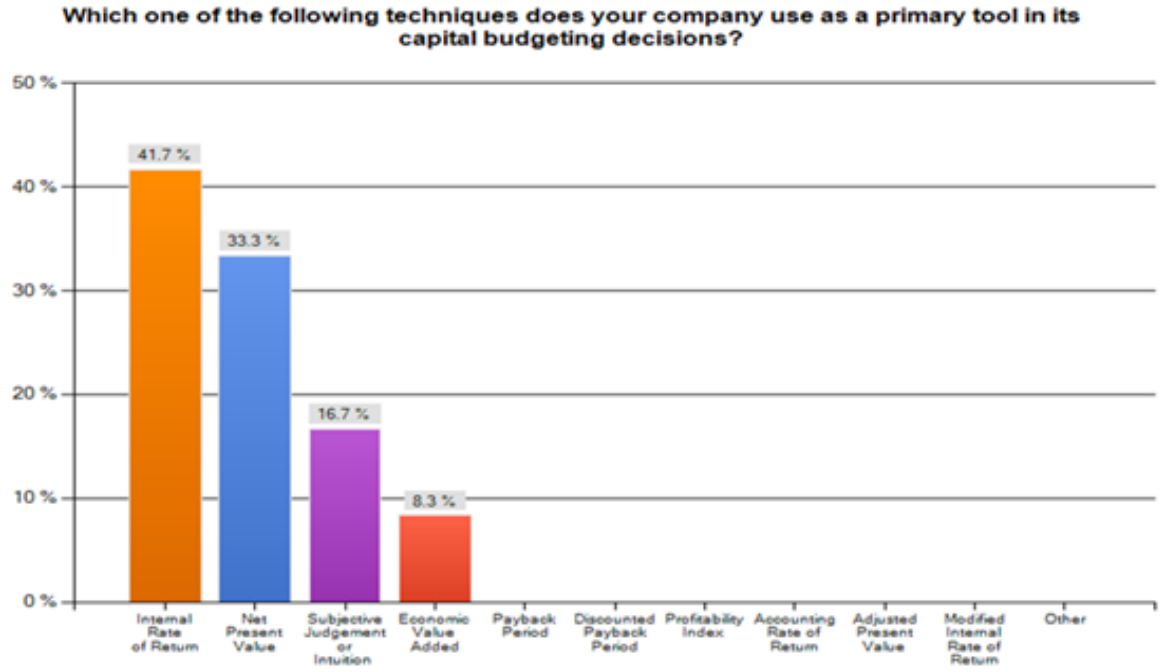
Therefore, the current study shows that the capital budgeting practices of the respondents have improved from primarily using non-DCF techniques to now using DCF techniques in assessing proposed projects. These findings suggest that the capital budgeting techniques of the companies listed on the Alt X are also correlated to the sizes of the annual capital budgets available, and that capital budgeting practices have improved as the sizes of capital budgets have increased. These findings are in line with the findings of other studies.

The favoured secondary capital budgeting technique among respondents in the current study was subjective judgement or intuition, which is used by 33% of the respondents. This was followed by the NPV (25%) and the PBP (25%). The PI, the ARR, the IRR and the discounted payback period each recorded a 8% popularity.

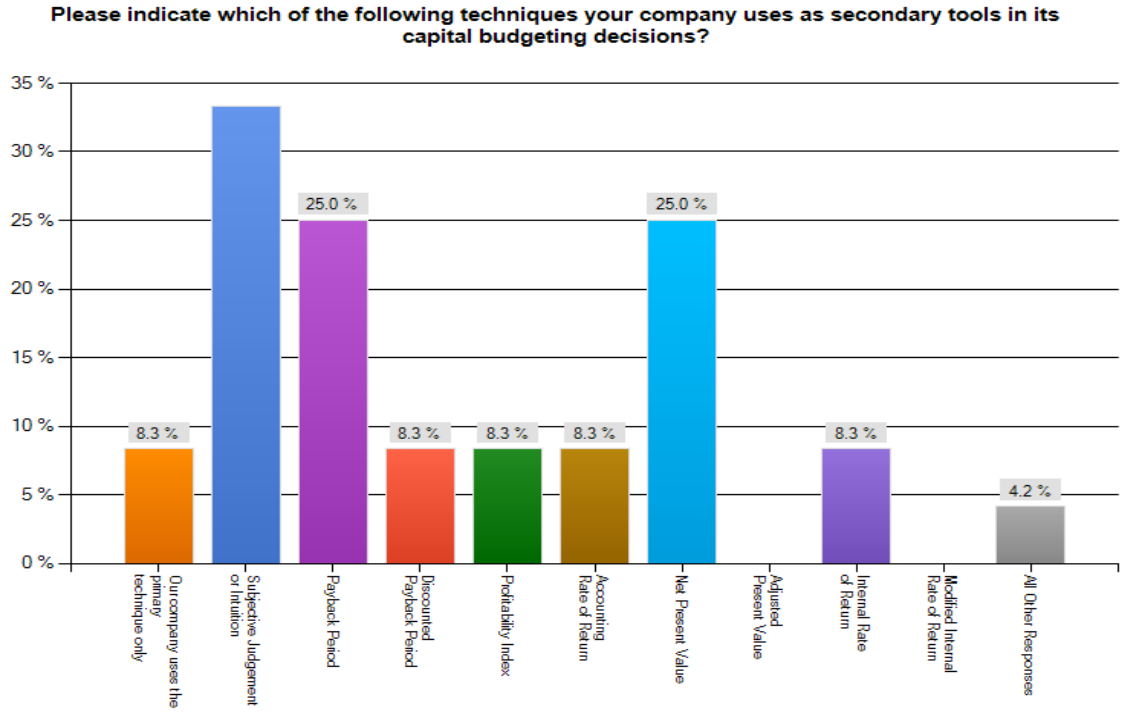
These results indicate that the Alt X listed companies had a stronger preference for sophisticated techniques as a primary tool of analysis, and that non-DCF techniques such as subjective judgement and the PBP are predominantly used as secondary capital budgeting techniques. Gitman and Forrester (1977) found a similar trend among the companies they surveyed, suggesting that DCF techniques may be used as primary tools and that the less sophisticated techniques are reserved for use as secondary tools in capital budgeting decision-making processes. The figure below compares and summarises the responses received regarding techniques that are implemented as primary and secondary capital budgeting techniques from the present study.

Figure 1. Preferences of primary and secondary techniques among respondents

Panel A



Panel B



Respondents were asked how frequently they used their disclosed capital budgeting techniques (both primary and secondary) for a range of listed investment activities. The order in which activities are 'often' to 'always' analysed using capital budgeting techniques are firstly the 'expansion of current operations', followed by 'new proposed projects' and thirdly, 'mergers and acquisitions'. Baker *et al.* (2011) also found similar trends among respondents who revealed that the top three activities for which they 'often' to 'always' used their capital budgeting techniques were the 'evaluation of new operations', 'mergers and acquisitions' and 'expansion projects'. West (2008) found that respondents showed no inclination to any specific investment activity and that they used their capital budgeting techniques equally to assess 'new projects' and 'capital replacement projects'. Hall and Millard (2010) found that the capital budgeting tools implemented by respondents were primarily for the appraisal of 'current project decisions', followed by 'general capital investment projects' and 'proposals to expand existing operations'. Findings from the present study show that 'foreign operations' followed by 'replacement projects' ranked fourth and fifth respectively as investment activities that respondents assess using capital budgeting techniques.

Ten of the 15 respondents chose to participate in this section of the survey and all ten of the respondents indicated that they use some discount rate for capital budgeting purposes. As a follow-up question, respondents were asked to reveal the approach that their respective firms used to determine an acceptable rate of return for proposed capital investments. The weighted average cost of capital (WACC) was the most popular option, with 70% of the respondents indicating that they use it, followed by 20% of the respondents who stated that the rate used is based on managements' experience. The remaining respondents to this question revealed that they use a historical rate of return. Interestingly, none of the respondents indicated that they exclusively use the cost of the specific funds intended to finance a proposed project such as the cost of debt or equity as a discount rate.

Prather *et al.* (2009), who surveyed small US businesses situated in rural areas, found that 63% of their respondents did not use any formal capital budgeting techniques or discount rate calculation, but relied heavily on managerial experience and intuition. Andor *et al.* (2011) also found low levels of use of the appropriate methods of determining acceptable rates of returns among small businesses in their study. They revealed that 65% of the small firms they surveyed preferred to use a general discount rate, and only 29% of respondents use WACC.

The findings from the present study do, however, correspond with findings in studies of larger companies which found that a significant number of companies are using the WACC. Schall *et al.* (1978) found 46% of their respondents use WACC, whilst Ryan and Ryan (2002) concluded that 83% of their respondents from the Fortune 1000 companies chose the WACC. More recently, Baker *et al.* (2011) presented findings which were also consistent with financial theory, reporting that 64% of the responding firms use the WACC, while 44% relied on managerial experience and a further 38% used the cost of the specific funds.

The respondents of the present study who acknowledged using the WACC as a foundation to determining their discount rate were asked to reveal how the weights of each component of the WACC are defined. Book value weights derived from the balance sheet and market value weights were equally popular among respondents to the current study, each attracting 43% of the respondents, while target weights are only used by 14% of the respondents.

The high use of market value weights among respondents corresponds with financial theory. Small firms surveyed by Baker *et al.* (2011) also showed greater reliance on weights derived from the market value of various sources of capital, followed by target value weights and finally book value weights. Findings from studies which investigated larger companies such as Gitman and Vandenberg (2000) found that respondents preferred (in order of preference) target values (50%), market values (34%) and book values (20%) as weights to calculate the WACC. Bennouna *et al.* (2010) found that 50% of their respondents based their WACC calculation on target value weights, 30% on book value weights and 20% on market value weights.

Of the respondents in the current study, 43% indicated that they recalculated the WACC when significant changes to parameters occurred. Andor *et al.* (2011) found that 51% of the small companies in their study adjusted the WACC to reflect the risks related to different projects, whilst the study by Baker *et al.* (2011) on small firms found that 79% of respondents constantly differentiated between projects based on their riskiness, and adjusted the discount rate accordingly.

Other recalculation frequencies were also displayed by the respondents of the current study, with 29% of them revealing that they adjusted the WACC annually. The remaining respondents were equally distributed between adjustments made monthly and bi-annually, while none of the respondents indicated that they reassessed the WACC as financial markets fluctuated. Bruner *et al.* (1998) found that 37% of large firms in their study reviewed their WACC annually, 19% reviewed it quarterly, 11% reviewed the WACC semi-annually, while another 4% engaged in monthly re-appraisals. Graham and Harvey (2001) found that nearly 60% of the large firms in their study used a single company-wide discount rate that was not adjusted per project to reflect the different risk characteristics of each project. More recently, Andor *et al.* (2011) and Baker *et al.* (2011) both found that a declining number of large companies relied on a single discount rate to be applied to assess all investment proposals.

In the current study, the final question related to the WACC was designed to investigate whether the respondents used the WACC for purposes other than capital budgeting. Only 29% of the respondents indicated that they did not use the WACC for alternative purposes, whereas 71% of them revealed that they do. Evidence of alternative uses of the cost of capital by surveyed companies was found in a study by Bruner *et al.* (1998), who found that 51% of the respondents in that study used the cost of capital for other purposes, such as the evaluation of divisional performance.

Findings from the present study brought new insights regarding the companies listed on the Alt X and their capital budgeting practices. Contrary to findings from other studies that focused on the capital budgeting behaviour of SMEs, the findings of this study indicate that decision-makers in Alt X companies are generally similar to or more educated than the decision-makers in both local and international SMEs. Analysis of the data from this study study shows that the capital budgeting practices of SMEs listed on the Alt X has improved in recent years, a finding which can be attributed to increased capital budget sizes. Most companies listed on the Alt X are using DCF techniques as primary capital budgeting techniques, although subjective judgements dominate as the preferred secondary tool for investment appraisal.

The greater portion of the respondents from the current study reported that they use the WACC as the acceptable rate of return when evaluating proposed capital investments. This is similar to evidence found in studies related to larger companies and is in alignment with corporate finance theory recommendations. Respondents from the current study tended to apply market value weights or book value weights in the WACC calculation. Overall, the findings of the current study are in line with a number of findings from other studies and in general paints a positive picture of the capital budgeting practices of small listed companies; they use the NPV and IRR as primary capital budgeting techniques, they use the WACC as a discount rate and they adjust WACC on a regular basis. In the next section, recommendations based on these findings are made.

5. CONCLUSION AND RECOMMENDATIONS

Governments around the world, particularly in developing countries, have become more cognisant of the role that SMEs play in the economy, the assistance they need to acquire finance and to promote their financial development. The main objective of this study was to investigate the capital budgeting practices implemented by companies listed on the Alt X of the JSE. These were compared to findings derived from other studies that analysed the practices of small unlisted companies, companies on the main board of the JSE, as well as small and larger international companies.

The findings of prior studies that focused on unlisted South African SMEs found that the most popular capital budgeting techniques among SMEs were the PBP and other elementary tools of investment appraisal such as 'gut feel' or 'intuition'. Studies of the capital budgeting practices of SMEs in other countries found that those companies used the PBP and 'intuition' as capital budgeting techniques. However, a number of studies reflected a slight increase in the percentages of SMEs that used DCF techniques over the decades. Some studies reported that South African SMEs preferred the IRR approach (Gilbert, 2003), whilst others suggested that SMEs favoured the NPV technique (Brijlal and Quesada, 2009). Findings from international studies on SMEs suggested that over time SMEs have begun to favour the NPV as a capital budgeting technique rather than the IRR (Baker *et al.*, 2011).

The current study was based on an analysis of primary data gathered from a web-based survey administered to companies listed on the Alt X. The demographics in the current study show that the decision-makers have a relatively high level of academic education. The primary capital budgeting tools used by companies listed on the Alt X were the IRR and the NPV and these choices resembled practices used by larger companies. Furthermore, the use of DCF techniques among Alt X-listed companies has increased since a study conducted by West (2008) on a similar population. Respondents from the current study continue to show a stronger

preference for the IRR technique over the NPV approach. The use of advanced investment appraisal techniques corresponds with the increased sizes of the capital budgets available to the companies on the Alt X in comparison to those found in unlisted SMEs. However, no definite conclusions could be drawn on whether Alt X-listed companies used DCF techniques before listing or whether listing on the stock exchange influenced their capital budgeting practices.

The majority of the respondents revealed that they used a discount rate in their investment appraisal process. This corresponds with the higher use of advanced capital budgeting techniques found among respondents. The WACC was the preferred approach for deriving an acceptable rate of return to access proposed capital investments. Furthermore, respondents revealed that they based their WACC calculation on book value and market value weights and recalculated it when significant changes to parameters occurred. These results were generally similar to recent practices in larger companies both in South Africa (Correia and Cramer, 2008) and internationally (Bennouna *et al.*, 2010).

The implications of the findings from the current study are that, as the capital budgeting practices of listed SMEs are in line with the recommended techniques proposed by academia, namely the NPV and IRR, listed SMEs should make shareholder value-enhancing decisions in undertaking capital budgeting. Decision-makers in listed SMEs could also take cognizance of the value of the PBP as an additional technique, over and above a primary and even secondary technique. It is recommended that to optimise the capital budgeting process, two or even three capital budgeting techniques be employed. Decision-makers should be knowledgeable in the use and application of capital budgeting techniques such as the PI, as well as the modified internal rate of return (MIRR). Furthermore, the calculation and adjustment of the discount rate, ideally the WACC, should be done at least on a yearly basis, because the financial parameters used as the input in WACC are dynamic and change continuously.

It is recommended that future studies use mailed surveys or personal interviews, as these methods produce better response rates, which ultimately increase the accuracy of findings from a study. Similar studies need to be conducted of SMEs listed on the New York Stock Exchange's Alternext, the Alternative Investment Market (AIM) in London and similar stock exchanges in other countries in order to compare with the findings from the current study, as well as to detect any patterns in companies listed on alternative exchanges. International studies such as Bennouna *et al.*'s (2010) and Baker *et al.*'s (2011) state that the use of real options is one of the main developments in capital budgeting literature in the last decade. However, little evidence of this has been found among the Alt X-listed companies, and in studies in South Africa in general. Future studies could endeavour to determine the prevalence of this approach to capital budgeting among companies.

This research has shed some light on this unique group of companies on the JSE, and which are often overlooked and are neglected in financial research. This study has contributed to financial theory by showing that companies listed on the Alt X differ from their unlisted counterparts, and that many of the findings from previous studies regarding SMEs are not universal to all SMEs. It has laid the foundation for future research on the capital budgeting practices of listed SMEs in South Africa and around the world as findings from such studies could be compared to those included in this study to identify patterns among listed SMEs.

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STAKEHOLDER ENGAGEMENT AND THE GRI: IMPLICATIONS FOR EFFECTIVE RISK MANAGEMENT

Claire A. Horner*, Trevor D. Wilmshurst*

*University of Tasmania

Abstract

Stakeholders expect organisations to assess and manage risk in all areas of business activity including their social and environmental activities, and corporate reporting on these activities is increasing. Acknowledging that a gap may exist between voluntary reports and internal social and environmental risk management practices, this study explores the association between the use of the GRI guidelines, stakeholder engagement practices, and risk management practices with reference to AS/NZS Risk Management Standard ISO 31000:2009. It moves beyond motivations to explore how voluntary reporting practices may facilitate risk management through the process of stakeholder engagement. Results indicate that the use of the GRI in conjunction with external verification encourages more inclusive stakeholder engagement practices as identified in the AS/NZS Risk Management Standard.

Keywords: Stakeholder Engagement, Stakeholders, Risk, GRI, Impression Management, AS/NZS Risk Management Standard

1. INTRODUCTION

Stakeholders increasingly expect that organisations will assess and manage risk in all areas of business activity including the area of corporate social and environmental responsibility. The need for organisations to face previously unforseen, and potentially unforeseeable risks in uncertain and ever-changing environments has accelerated with rapid advances in information and industrial technology (Gouldson & Bebbington, 2007). In Australia guidance is provided through the AS/NZS Risk Management Standard, and under the ASX Corporate Governance Principles and Recommendations (2014). Organisations, as part of their corporate social responsibility (CSR), are expected to manage and disclose not only economic, but also social and environmental risks. A failure to address the latter two can and does lead to serious economic consequences which can be of an ongoing nature both for the organisation and potentially for directors who are expected to make sufficient enquiries to understand the affairs of and disclosures by the organisation. By way of two extreme examples, the clean-up costs to BP subsequent to the 2010 Deepwater Horizon disaster in the Gulf of Mexico initially cost $14 billion, before rising to over $19 billion as the full extent of the disaster unfolded (Schumpeter Business and management, 2012), in addition to a reported $4 billion in criminal costs (Smithsonian Institution, 2013). In the case of James Hardie, a case with no apparent end, the impact of asbestosis continues to impact well beyond those initially affected to embrace those involved in the renovation of properties that have asbestosis content. Whilst the company 'had been aware since 1935 that asbestos was a killer and had received its first compensation claim for asbestosis as far back as 1939' (Verrender, 2012), the failure to adequately address this issue has resulted in the estimated net present value of asbestos liabilities rising from $1.87 billion at March 31, 2014 to $2.14 billion at the end of March, 2015 (Janda, 2015). Further, a High Court decision in 2012 had the potential to 'alter the way in which directors should conduct themselves'. In part the issue for James Hardie was a decision to separate its asbestos liabilities from the operating company, because maintaining the asbestos liabilities within the corporate structure would have hindered earnings for at least two decades (Verrender, 2012). 'Current claims from people who had indirect exposure to asbestos or people exposed later on through renovation work', washing the clothes of family members who had been exposed to asbestos, workers involved in removal or demolition works containing asbestos have been identified as a 'third-wave' of claimants (Janda, 2015).

In applying the risk management standard, organisations are expected to engage with stakeholders to identify and assess risks, which include risks of a social and environmental nature. Social and environmental reporting (S&ER) has been acknowledged as the most common way to communicate the outcomes of stakeholder engagement practices. A number of voluntary frameworks have been developed to guide organisational S&ER, the most prominent being the Global Reporting Initiative (GRI). The GRI is based on the principle of stakeholder inclusivity, and stakeholder engagement is expected. However, the voluntary nature of the GRI means that organisations may choose what is applicable from the available guidance, resulting in various

interpretations in practice, and varying levels of stringency.

The purpose of this paper is to explore the potential relationship between accordance with the GRI, the adoption of more inclusive stakeholder engagement practices, and attention to risk management practices in accordance with the Australia and New Zealand standard and ASX Principles. The remainder of the paper is structured as follows: a brief overview of the stakeholder theory literature is provided in the following section, and stakeholder engagement is discussed in Section 2. Risk management under the AS/NZS standard and ASX Principles is outlined in Section 3, in addition to S&ER and the use of the GRI. The research method is discussed in Section 4 before a discussion of the results is provided, followed by the conclusion and discussion of limitations.

2. STAKEHOLDERS AND STAKEHOLDER THEORY

Stakeholders are defined as being "any individual or group who has an interest in the firm because he [sic] *can affect, or is affected* by the firm's activities" (Freeman, 1984:41). Therefore, stakeholder theory requires that the interests of a broader set of stakeholders than simply those with an economic interest in the organisation such as shareholder and creditors be considered, including employees, suppliers, communities, governments, customers, environmentalists, non-government organisations and the wider society (Cuganesan & Khan, 2008). According to stakeholder theory, organisations are expected to manage the interests of this extended network of stakeholders in a responsible manner (Jamali, 2008).

Whilst a fundamental aspect of the normative branch of stakeholder theory is that all stakeholders are important, and, accordingly, the organisation should consider its responsibilities with regards to all stakeholders' interests, this is difficult to do in practice. The managerial branch of stakeholder theory suggests that rather than attempting to satisfy the interests of every stakeholder, rationality and limited resources result in a tendency for organisations to classify and prioritise their stakeholders with reference to instrumental and normative considerations (Jamali, 2008). Stakeholders are classified according to their perceived importance to the organisation (Gibson & O'Donovan, 2007), and these classifications are generally reliant upon the discretion of individual managers and their personal instrumental and normative tendencies (Jamali, 2008). Whilst much of the extant literature has focused on the management of stakeholder relationships via one-way communication, stakeholder theorists are increasingly moving towards an engagement, rather than management approach (Morsing & Schultz, 2006).

3. STAKEHOLDER ENGAGEMENT

Stakeholder engagement is defined as "the process used by an organisation to engage relevant stakeholders for a purpose to achieve accepted outcomes" (AccountAbility, 2008: 45). The emphasis on 'accepted outcomes' highlights the importance of outcomes of the engagement process being fed back into organisational activities. Furthermore, dialogue requires two-way communication; terms such as 'talk' and 'feedback' do not equate to genuine dialogue (Kent & Taylor, 1998). Often it is the information disclosed publicly by organisations that provides the basis for 'dialogue' between organisations and stakeholders (Cuganesan & Khan, 2008). However, what is referred to as 'dialogue' is often only one-way from the organisation to the stakeholder, rather than two-way communication.

A number of different methods for engaging in stakeholder dialogue have been adopted over time including interviews, focus groups, public meetings, consultations and expert or advisory panels (Cumming, 2001; Owen, 2003), which are useful stakeholder engagement tools as they provide an opportunity for participants to voice their opinions in an interactive environment, and help identify previously unforseen risks. The decision regarding which of these alternatives to choose will depend on factors such as time and cost involvement, depth of information or guidance and the nature of the engagement sought. For example, in matters involving a community, focus groups and public meetings/consultations may be most appropriate, but where a specific group is affected a more limited focus group or individual interview may be the wiser choice. In order to facilitate stakeholder engagement, key performance indicators (KPIs) should be adopted around stakeholder categories such as 'employees'; 'members/shareholders, financial community'; 'clients/customers'; 'suppliers'; 'financial partners'; 'state, local authorities and public administration'; 'community' and 'environment' (Perrini & Tencati, 2006: 304). The internet also provides the facilities to engage in real-time dialogue with a number of stakeholders in dispersed geographic regions, simultaneously (Isenmann & Lenz, 2001; Wheeler & Elkington, 2001). Whilst evidence suggests that a limited number of organisations are using their websites to engage with stakeholders (Adams & Frost, 2006), many of these engagement exercises are restricted to simple feedback mechanisms (Paul, 2008).

Whilst there have been instances of successful stakeholder engagement (Collins & Usher, 2004), evidence suggests that most engagement exercises are for the purposes of reputation and stakeholder management (Pérez, Ruiz, & Fenech, 2007; Manetti, 2011). In order for this to change, organisations must see stakeholders as rights holders, and engage with them accordingly (Chetty, 2011). One organisation that has been commended for its stakeholder engagement efforts is Royal Dutch/Shell (Shell), due to the establishment of a web-based stakeholder dialogue forum. This forum allowed stakeholders to post comments under predetermined sections, with responses provided by Shell employees and other members of the forum. Whilst Shell's web forum has been lauded by many as best practice (Delfgaauw, 2000; Cooper, 2003; Maharaj & Herremans, 2008), internet access is not evenly distributed internationally, and the fact that the forum is only provided in English limits the ability of many important stakeholders to participate in the discussion. Furthermore, the effectiveness of the web forum was also found to be severely limited by the failure of stakeholders to

engage in open and cooperative discourse (Unerman & Bennett, 2004).

In order to maximise stakeholder involvement, Cumming (2001) provides three questions to be considered before embarking on any engagement process. First, will the stakeholder group feel comfortable discussing the organisation and potentially making criticisms of the company? Is there an imbalance of power in the relationship and will this impact on the quality of the engagement? Secondly, does the size of the participant group lend itself to a particular engagement method? Is the organisation prepared to adopt the engagement process which yields the 'best' result? What is the intention of the organisation – impression management or meaningful engagement surrounding the activities of the organisation? Finally, has the stakeholder group had any prior involvement in the process of engagement? Have they prior experience in various forms of engagement with organisations and will they be comfortable (and honest) in the engagement? The choice of the most appropriate engagement method will lead to a greater likelihood of success, and it is important that relevant stakeholders are engaged with in a constructive manner and that important stakeholders are not excluded. A final consideration in the stakeholder engagement process is whether the intention is to close the 'reporting loop' (Wheeler & Elkington, 2001; Owen, 2003) and ensure that the concerns and opinions of stakeholders are incorporated back into organisational management systems (Owen & Swift, 2001). This serves the purpose of empowering stakeholders, and helps ensure that their information needs are being met (Owen, 2003; Cooper & Owen, 2007). It also facilitates effective risk management practices by ensuring social and environmental risks identified in the engagement process are adequately addressed. However, there is little evidence to suggest that this is occurring in practice, even amongst leading engagement practitioners (Owen, Swift, Humphrey & Bowerman, 2000; Unerman & Bennett, 2004; Cooper & Owen, 2007).

4. RISK MANAGEMENT

In Australia, the importance of risk management has become increasingly significant with concerns regarding corporate governance practice and the management of risk within organisations that are associated with these practices. The AS/NSZ Risk Management Standard ISO 31000:2009 is a principles-based best practice standard that offers general guidelines for risk management practices that are not industry-specific. Risk is defined as "the effect of uncertainty on objectives" (Standards Australia/Standards New Zealand, 2009: 1). Organisations that adopt this standard are expected to engage in ongoing dialogue with stakeholders regarding the management of risk, and in the establishment of both internal and external communication mechanisms. In terms of communication it is expected that this would involve engaging with appropriate stakeholders in an effective exchange of information, external reporting to comply with legal, regulatory, and governance requirements, providing feedback and reporting on communication and consultation to build confidence in the organization and to communicate with stakeholders in the event of a crisis or contingency (Standards Australia/Standards New Zealand, 2009: 12). Furthermore, the revised ASX Corporate Governance Principles (2014: 30) state that under Recommendation 7.4 "A listed entity should disclose whether it has any material exposure to economic, environmental and social sustainability risks and, if it does, how it manages or intends to manage those risks."

A major approach to this communication with stakeholders has been S&ER. However, there have been concerns raised that this has tended to be one-sided – organisation to stakeholders rather than a two-sided engagement approach. This reporting is one of the most commonly used methods by organisations to communicate the outcomes of their stakeholder engagement strategies, and to signal to stakeholders that they are taking steps to manage social and environmental risks (Spence, 2007; Rankin, Stanton, McGowan, Ferlauto & Tilling, 2012). Furthermore, S&ER and attention to risk management may help minimise risks such as consumer boycotts and other unforseen issues that may otherwise not be considered (Hooghiemstra, 2000). There are several S&ER methods used by organisations such as disclosures in the annual report, triple bottom line reports, stand-alone sustainability reports, and web-based reporting, and a number of voluntary frameworks are available to provide guidance, the most commonly adopted being the GRI.

The GRI has emerged as the dominant framework and is the closest to being considered generally accepted (Burritt, 2002; Frost, Jones, Loftus, & Van Der Laan, 2005; Ballou, Heitger, Landes, & Adams, 2006). Towards the end of 2006, almost 1,000 organisations from over 60 countries were registered with the GRI and issuing sustainability reports using GRI standards (Ballou et al., 2006). KPMG's (2008) *International Survey of Corporate Responsibility Reporting* indicated that approximately 60 per cent of reporting G250 organisations cited the GRI as their reporting framework. The guidelines may be used in a number of different ways with various levels of stringency (Hedberg and von Malmborg, 2003; Ballou et al., 2006). The GRI provides an ABC rating system by which organisations may disclose the extent to which they comply with the guidelines (KPMG, 2008), and organisations may choose to self-assure, or obtain external assurance to verify their level of compliance. Voluntary frameworks and standards, such as that provided by AccountAbility have been developed to provide guidance to assurors of S&ER, and the provision of assurance is a necessary criterion to obtain an A+ level of compliance. In 2008 slightly fewer than 40 per cent of reporting G250 organisations that declared their level of compliance actually did comply with the GRI at the highest level (KPMG, 2008).

The AccountAbility AA1000 assurance standard was first published in 1999 and focuses on the processes involved in the reporting of environmental impacts (Adams, 2004), and the governance structures that should be established (Adams & Evans, 2004). The intention of AccountAbility is to aid organisations and their respective stakeholders in the delivery of enhanced social, environmental

and economic responsibility throughout the course of conducting business (Adams & Evans, 2004). As such, stakeholder engagement is considered to be an integral aspect of the AA1000 process (Adams, 2004) and can also be seen in the context of risk management and role of stakeholder engagement in this process.

The GRI requires organisations to take risks into account when defining material topics, and is based on the principle of stakeholder inclusivity, which requires stakeholder engagement (GRI, 2011). This provides a link to the Australia and New Zealand standard by identifying the more specific guidance available to manage S&ER. An organisation could be expected to utilise both in their social and environmental risk management strategy. However, despite the establishment of these comprehensive standards and frameworks and the growing number of organisations producing social and environmental reports, it has been suggested that voluntary guidelines, such as the GRI, may simply provide a means of legitimising poor organisational performance (Adams & Zutshi, 2004). Furthermore, S&ER practices have been criticised as being biased, self-laudatory exercises in impression management (e.g. Hedberg & von Malmborg, 2003; Frost et al., 2005; Hrasky, 2012). This can be contrasted with research that has explored the question of organisations taking a proactive approach as compared to a reactive approach to S&ER (Staden and Hooks (2007) and Hooks and Staden (2011). Interestingly the question of whether or not a response is reactive or proactive could both potentially be impression management in nature. While the former might be a response to an event such as an oil spill the latter could be an attempt to create a certain perception of the organisation to the or a group of stakeholders. Therefore, the relationship between voluntary organisational reports of social and environmental matters and internal social and environmental risk management practices remains unclear.

In summary, in order to identify and assess the materiality of social and environmental risks, engagement with both internal and external stakeholders is a requirement of both ISO 31000:2009 and the GRI. Stakeholders are those who may impact or be impacted by the achievement of organisational objectives, and accordingly may be able to provide valuable insights with respect to the identification of material risks relating to the achievement of organisational objectives. Therefore, it can be argued that organisations should actively engage in constructive dialogue with stakeholders, and consideration must be given to the appropriateness of the engagement processes for the particular stakeholder group. Whilst stakeholder engagement is a requirement of the GRI, the framework may be used in different ways and with varying degrees of stringency, and whilst the AS/NZS Standard requires 'the effective exchange of information', the level of stakeholder inclusivity in present organisational engagement practices remains unclear. Therefore the research question posed in this study was:

Where management embrace GRI guidelines more fully, do they adopt more inclusive stakeholder engagement practices aligned to those identified in the AS/NZS Risk Management Standard ISO31000:2009?

5. APPROACH TO DATA COLLECTION

In order to address the research question, semi-structured interviews were conducted with ten Australian listed organisations and one external consultant with experience in assisting organisations with the preparation of social and environmental reports. Whilst there has been much discussion and analysis in the literature regarding organisations' decisions to communicate their environmental activities to stakeholders, the majority of studies have been conducted from the outside, looking in, rather than in direct consultation with the preparers themselves.

5.1. Sample Selection

Participants for the interviews with organisational representatives were selected using convenience sampling from those organisations listed in the ASX Top 200 as at 11 July 2011 whose head offices were domiciled in Melbourne and Sydney (and surrounding suburbs), and report upon their social and environmental performance. Of the 200 ASX listed companies 106 were domiciled in Melbourne or Sydney.

In order to obtain the contact details for potential interviewees, each of those companies' website addresses was obtained though the DatAnalysis database, and where available, the company's most recent social and environmental report was obtained from the company website. If the report was not available on the website, a cross-check was done via the Corporate Register website. A search for the terms "feedback" and "contact" was conducted in each social and environmental report to obtain contact details (this search was also conducted where a sustainability section was provided in the annual report, but yielded zero results).Where a separate social and environmental report was not found through either the company website or Corporate Register, the web pages addressing sustainability (where provided) were reviewed to determine whether a specific contact person was noted. Where neither contact details nor reports were provided, the "Contact Us" page of the website was checked to see if a specific contact for investor relations/environment/sustainability was provided. These searches revealed twenty nine potential interviewees who were contacted, of whom ten agreed to participate. In each case the participant was the individual who was directly responsible for the production of the social and environmental report.

The final sample of ten organisations comprised a diverse industry representation. Nine industry sectors were represented including energy, banking, commercial services and supplies, telecommunication services, real estate, pharmaceuticals & biotechnology, transportation services, utilities, and materials.

The external consultant interviewed was also selected using convenience sampling, and was chosen due to their experience in assisting at least one of the organisations interviewed with the preparation of their social and environmental

reports. This consultant has specialised expertise in assisting organisations with their S&ER and stakeholder engagement practices, and the purpose of the interview was to facilitate the triangulation of data and provide a balanced perspective to the first stage interviews. Contact details were obtained from the organisation's website.

5.2. Development of Interview Protocol and Data Collection

The interviews were conducted as part of a broader exploratory study, and a semi-structured interview protocol was developed around the research questions asked in the broader study, and the issues regarding S&ER raised in the extant literature. The interview protocol included questions regarding the interviewee's background in order to provide contextual information, specific questions about organisational processes and practices, and more general questions regarding the interviewee's views on topical issues such as the regulation of S&ER.

A pilot interview was conducted with a Certified Practicing Accountant unrelated to the study. The purpose of this pilot interview was predominantly to ensure that the questions were clear and unambiguous to someone outside the area of academic interest, and that the structure of the interview was sensible. Some minor changes were made as a result of this pilot, such as slight changes to structure and wording. The pilot interviewee also made some useful suggestions about additional questions that could be asked with respect to signing off on the reports. Ethics approval was obtained for the conduct of the interviews, and all interviewees were assured anonymity.

The very nature of semi-structured interviews suggests that the questions may not be answered in the order that the interviewer intends. However, careful consideration was given to the structure of the questioning, and how to best engage the interviewee by building on previous questions. Flow charts of the interview questions were also prepared in an attempt to avoid frustrating the interviewee with superfluous questions. Several advantages were found to using semi-structured interviews. It allowed the flexibility to explore new topics and themes as they emerged, and facilitated the application of lessons learned in each interview to the subsequent interviews.

The first stage of the interviews with representatives from ASX Top 200 organisations were conducted during late September and early October 2011, while the interview with the external consultant was conducted in November 2012. Each of the interviews was one-on-one with the exception of that with Org F, which involved two organisational representatives and the interviewer. Ten of the interviews were conducted face-to-face whilst one was conducted via teleconference, and the interviews were digitally recorded and exact transcriptions prepared by an external party, before being checked for accuracy by the lead researcher.

5.3. Interview Data Analysis

The data analysis method used is consistent with that used and described in detail by O'Dwyer in his 2004 article "Qualitative Data Analysis: Illuminating a Process for Transforming a 'Messy' but 'Attractive' 'Nuisance'". Qualitative data analysis has been described as an 'attractive nuisance', because of the attractiveness of its richness but the difficulty of finding analytic paths through that richness (Miles, 1979; O'Dwyer, 2004).

The ten interviews ranged from 30-90 minutes each, and yielded in total approximately 186 pages of transcription. In order to transform the data set into a logical and enlightening narrative O'Dwyer (2004) outlined three distinct but overlapping phases of analysis including data reduction, data display and data interpretation.

Data reduction involves interacting with the various analysis tools used in the data collection stage such as interview notes, transcripts and contextual information in order to identify key themes and patterns. Data display then involves visually displaying the reduced data through detailed matrices encompassing the key themes and patterns. It is during this stage that 'open' code matrices are prepared, those 'open' codes collapsed into 'core' codes and the 'open' code matrices then reformulated according to the 'core' codes. Data interpretation involves five steps, including a 'detailed analysis tools review', a 'big picture outline', 'formulating a thick description', 'contextualising the thick description' and 'employing the analytical lens' (O'Dwyer, 2004). All coding and sorting was done manually rather than through the use of computer aided qualitative data analysis software (CAQDAS) in order to better to reflect upon, and recall the content of the interviews (Anderson-Gough, 2004).

As with any study of this nature, there is a risk of interviewer bias both during the interviews and in the analysis of the transcripts. An attempt was made to alleviate this risk by carefully constructing open-ended interview questions, and by choosing not to review the social and environmental reports of the organisations prior to the interviews to avoid forming potentially biased judgments and preconceptions. Furthermore, the use of a systematic analytic protocol helps alleviate the risk of interviewer bias in the data analysis and O'Dwyer (2004) advocates using narrative data analysis, suggesting that focusing on telling a story helps avoid selectivity in the analysis.

6. DISCUSSION OF RESULTS

Interestingly, and perhaps surprisingly, of the ten interviewees only three of the reporting entities representative specifically referred to aspects of risk and risk management when discussing organisational motives for S&ER. On the surface this may lead to a sense that S&ER is inclined toward impression management motives rather than a formal part of risk management strategy. But it may also be that management now build many of these considerations into their business strategy as concerns regarding risk and CSR have increased. For example, one interviewee attributed the increase in S&ER, in part, to the "growing sophistication of risk frameworks at the Board level [and] increasing interest from mainstream financial analysts around [...] risk mitigation" (Org F, Respondent 1), while another referred to risks associated with *not* reporting (Org A). A third acknowledged that the

decision to change their strategy and embark on S&ER after early assessments of risks and opportunities had left their organisation in a good position to tackle new challenges such as the introduction of the Carbon Tax (Org G). Therefore, whilst all but one of the interviewees referred to motivations broadly classified as the 'business case' for reporting, the majority do not isolate risk management specifically as a reason for reporting. It would be reasonable to assume that in assessing a 'business case' for S&ER risk would be part of the discussion, though not necessarily a dominant influence. Furthermore, the fact that interviewees do not see risk management as an explicit reason for engaging in S&ER does not necessarily mean that risk management is not occurring, and it would be reasonable to assume that risk management might be implicitly built into a business case. However, further investigation would still seem to be required to assess whether, even with increased risk identification associated with S&ER activities, increased public awareness and the availability of risk management guidelines including stakeholder engagement management processes, organisations still see that they are managing views (impression management) as compared to addressing the issue proactively rather than has been seen in reactive reactions to, for examples, the use of child labour or underpaying staff for services rendered.

As noted above, in order to identify and assess risks stakeholder engagement is expected under both the AS/NZS standard and the GRI[1]. The interviews provided qualitative data on the interviewees' views on the application and effectiveness of the GRI Framework, and their stakeholder engagement practices. Each of the reporting organisations interviewed were at various stages of their reporting journey with some relatively new to the process whilst others had been consistently reporting for a number of years, and each of the organisations used the GRI Framework to varying degrees, ranging from simple guidance to accordance at the A+ level with third party verification.

The consensus amongst the interviewees was that of the available frameworks, the GRI is used because it is the closest to being generally accepted:

"Well it's the globally recognised framework" (Org B)

"Well it's a de facto standard, for want of a better word" (Org D)

"Because it's an international framework, global standard, it allows for comparability" (Org E)

"It's the most recognised, it's the one that's referenced, it's, stakeholders know what it is [...] it's best practice, we'll follow it" (Org G)

and the best of the available options:

"What else is there really?" (Org C)

"it's kind of the best there is out there" (Org E)

"there was no alternative framework that we saw that was actually really viable" (Org G)

"Oh, I looked around. [...] but the GRI just seemed to work best" (Org I)

However, whilst the interviewees agreed that the framework was useful: "I'd be sunk without it" (Org H), and valued it's flexibility, there were also common concerns expressed surrounding lack of clarity and the limited range of industry-specific supplements, and criticisms that "some of the bits are a little bit onerous" (Org I) and "it can be laborious" (Org F, Respondent 2). Or in the words of Org G:

"Some of the bits of the GRI I think are incredibly annoying and incredibly difficult to even prove that they're not applicable and so it's frustrating I think. [...] obviously the GRI was intended that, here's a whole heap of indicators, you need to pick which are the most material and only report on those, [...] but [...] you basically have to report on everything to get an A+ because in order to prove that something is not relevant, you've done the work anyway, [...] you may as well put it in there and I think that kind of process would be better redesigned so that people don't feel they have to report on everything".

In fact, there appeared to be evidence suggesting that part of the appeal of the GRI is that it is so commonly used, rather than its practical value:

"it's almost like a mass now, there's so many people doing it that I don't understand how you would actually make up anything that would be better that it." (Org B)

"There's no point reinventing the wheel" (Org A)

"If you're going to write a sustainability report and you don't do it to GRI, what do you do it to?" (Org C)

"if somebody came along with a better one, I'd be very happy" (Org H)

The consultant interviewed supported many of these assertions:

"Look, I think GRI has been quite helpful in making the case for sustainability reporting and providing a consistent and coherent framework, but there are lots of weaknesses in GRI, and it's not a standard, it's an inadequate level of specification to be a standard, it's a framework, so there's a lot that's open to interpretation, there is a lot of missing guidance, and sometimes your best friends, or your best advocates for reporting inside an organisation would naturally be the compliance people, because they understand that the organisation needs to become more sustainable, they see compliance as a route to do it, they look at GRI and it looks too fluffy for them, and so they feel that it undermines what they are trying to do rather than help, but on the other hand, if you make it too specific, then I think that you are at risk of losing the reporting principles and the sustainability context which in my view are probably more important than the choice of performance indicators and information, that gets lost if you turn it into a compliance standard rather than a reporting, you know a principles driven reporting framework, so, I think there are so many challenges with GRI, but on balance, it's better to use it than not to use it."

The consensus appears to be that the GRI, whilst with much room for improvement, is very useful to organisations in guiding their S&ER practices. As noted above, the GRI is based upon the principle of inclusivity, which requires engagement with stakeholders. However, the GRI may be adhered to at varying levels, as evidenced in the small sample interviewed in the present study. The purpose of this research is to explore whether a relationship

[1] At the time of the interviews the ASX Principle had not been enacted.

exists between accordance with the GRI by entities sampled and the adoption of more inclusive stakeholder engagement practices as embedded in the AS/NZS Risk Management Standard ISO31000:2009. Therefore, a comparison of the interviewed reporting organisations' level of compliance with the GRI and the stakeholder engagement activities used in the reporting process may be enlightening. This relationship is displayed in Table 1.

Table 1. Level of compliance with the GRI, and stakeholder engagement activities

Organisation	*Industry*	*GRI Compliance*	*Engagement Activities*
Org A	Energy	Undecided*	-Internal surveys
Org B	Materials	B (GRI checked)	-Internal surveys -Feedback mechanisms
Org C	Pharmaceuticals & Biotechnology	B (Self-assured)	-Internal and external surveys -Feedback mechanisms -Website monitoring
Org D	Materials	A+ (Externally assured)	-Stakeholder interviews -Feedback mechanisms -Website monitoring
Org E	Telecommunication Services	C+ (Externally assured)	-Stakeholder interviews -Internal stakeholder proxy workshops -Online discussion forums -Establishing external advisory council -Feedback mechanisms -External surveys
Org F	Banking	A+ (Externally assured)	-Stakeholder interviews -Online discussion forums -External advisory council -Internal and external surveys -Feedback mechanisms -Website monitoring
Org G	Utilities	A+ (Externally assured)	-Stakeholder interviews -Investor webcasts -External advisory council -Feedback mechanisms
Org H	Commercial Services & Supplies	C (Self-assured)	-Internal stakeholder interviews -Feedback mechanisms
Org I	Transportation Services	Used for guidance	-Stakeholder interviews
Org J	Real Estate	A+ (Externally assured)	-Stakeholder interviews -External surveys

*At the time of the interview Org A was about to embark on the preparation of their first stand-alone report

As noted above, engagement involves two-way dialogue. One-way communication methods such as feedback mechanisms and surveys do not constitute engagement activities, and from the results of the present study appear to be largely ineffective, with Org D noting that "We have a feedback mechanism in our sustainability report but it has not had a lot of feedback through that source", and Org G noting that there was "nothing coming back via that mechanism". Both Org B and Org C, which used the GRI at a B level of compliance used only one-way communication methods to gauge stakeholder views, and did not engage in dialogue with stakeholders, whilst Org E, who had a lower level of compliance at C+ engaged in the greatest number of dialogic exercises. These include not only internal and stakeholder interviews, but also a workshop "with internal stakeholders asking them, you know, to really be proxies for their stakeholders [where] they came to represent the stakeholders that they liaise with closely" (Org E), online discussion forums, and plans to establish an external advisory council. Therefore, there does not appear to be a relationship between engagement activities and level of compliance with the GRI. However, there does appear to be a relationship between more inclusive stakeholder engagement activities and S&ER that has been presented in accordance with the GRI and has been externally assured.

Half of the reporting organisations (Orgs D, E, F & J) obtained external assurance for their social and environmental reports, and all of them actively engaged stakeholders in some form of dialogue. Four of the remaining organisations only undertook passive, one-way communication exercises with stakeholders. It must be noted that Org A had, at the time of the interview, provided only a limited amount of social and environmental information on their website, and were just embarking on the provision of their first social and environmental report, which may explain why little external engagement had taken place. The exception is Org I, who used the GRI for guidance only and did not obtain external assurance, yet did engage external stakeholders in two-way dialogue. Whilst the stakeholders engaged were restricted to customers and industry associations, it is an anomaly that must be considered. Possible explicators are the industry in which the organisation operates: "it's a funny industry. It's sort of duopolies and some of them government" (Org I), and internal organisational characteristics. Org I was unique in that the organisation engaged in a relatively limited amount of external S&ER, yet had an exceptional internal social and environmental accounting and reporting system. Whilst a further exploration of these differences is beyond the purposes of this study, they may go some way to explaining this anomalous result.

If, as it appears, there is a relationship between the provision of assurance for GRI-based reports and more inclusive stakeholder engagement practices, what is it about assurance that encourages stakeholder engagement? Each of the organisations used assurors that adhered to the AA1000 assurance

standard. Those interviewees representing organisations that engaged external assurors emphasised the importance of stakeholder engagement in the reporting and assurance process. However, only one mentioned the importance of stakeholder engagement with respect to risk management:

"[...] it's not just like, we just do one survey and that's it. We actually focus on each of those stakeholder groups and kind of work through a tailored process of trying to understand what are those material issues. We then pull that together and work closely with our risk teams and also our strategy leads because, my view, our view, is that sustainability materiality is absolutely got to be informed by a risk matrix and strategy. So we work through that and prioritise based on their feedback." (Org J).

The consultant interviewed, who has "done hundreds and hundreds of interviews with stakeholders for materiality assessments" (Cons) reiterated the importance of risk management with respect to S&ER and assurance:

"It's a requirement of GRI that the organisation conduct a materiality analysis, or report on what it's material issues are in any case, and it's also a principal in the AA1000 assurance framework which is a stakeholder orientation towards sustainability report assurance, so we, all our materiality assessments include external and internal stakeholder perspectives, we think it's terribly important for the external stakeholders to be, and it's a requirement of GRI, but even if it wasn't a requirement of GRI it makes sense that if sustainability reporting is about accounting for the impacts of the organisation, then you have to talk to those who are impacted, in order to do a fair account of the impacts, not just those who create the impacts, [...] but I think what's becoming more, better understood by reporting companies now is that the materiality assessment has the potential to contribute so much more than just identifying issues for the report, because if you're an A level reporter, you have to report on everything anyway, and so A level reporters, perhaps some of them have looked at the materiality assessment, and looked and said why bother we are going to report on everything anyway so why would we bother to find out what people think are the most important impacts, and we would always suggest to them, well, it's about the emphasis of the report, what are the things that you really want to focus on, [...] but I think the change that we're seeing in organisations' understandings of the value of a materiality assessment is how they can use it to generally inform their sustainability strategy and generally inform their overall business strategy and their risk, appraisals of risks in particular, and we have worked with some organisations that have seen the value in incorporating this into part of their annual risk review" (Cons).

7. CONCLUSION

The level of organisational adherence to the GRI is not necessarily directly related to the adoption of more inclusive stakeholder engagement practices. The adoption of GRI indicators combined with external assurance compliant with AA1000 is suggestive of the adoption of more inclusive engagement practices. Both the GRI and AA1000 are based on the concept of stakeholder inclusivity as is AS/NZ 31000:2009. GRI and AA1000 operating together may encourage dialogic stakeholder engagement which would enable organisations to identify and assess potential social and environmental risks, and thus comply with the AS/NZS Standard ISO 31000:2009 and the ASX Guiding Principles for risk management. Whilst many of the GRI indicators imply aspects of risk, it may be that independent third party verification using AA1000 adds an accountability obligation to the process of S&ER, thus encouraging engagement with those stakeholders to whom the organisation is accountable.

In terms of the research question posed to underlie this study:

Where management embrace GRI guidelines more fully, do they adopt more inclusive stakeholder engagement practices aligned to those identified in the AS/NZS Risk Management Standard ISO31000:2009?

The risk environment of the 21st century is one of rapid change and uncertainty, and there is an expectation that organisations will engage with stakeholders in order to identify and assess not only economic, but also social and environmental risks. Each of the standards referred to in this study have a focus which identifies stakeholder engagement and inclusivity to be important. In the interviews undertaken there did not appear to be a relationship between stakeholder engagement activities and adoption of GRI indicators. However, there does appear to be a relationship between more inclusive stakeholder engagement activities and the provision of S&ER that has been presented in accordance with the GRI, and has been externally assured. Organisations that obtained external assurance in accordance with AA1000 appeared to place greater emphasis on stakeholder engagement. Therefore it appears that the use of the GRI for S&ER, combined with the provision of external assurance complying with AA1000, may encourage the use of more inclusive engagement practices as identified in the AS/NZS Risk Management Standard.

As with any study of this nature, there are inherent limitations which must be acknowledged. Whilst every effort has been made to minimise the effects of potential bias it is acknowledged that the researcher cannot escape the socially constructed nature of reality. The motivations, impressions and ideals of both the interviewer and interviewee cannot be separated from the interview process, however in knowing this measures were taken to reduce this risk. While the results may not be generalisable, this paper was exploratory in nature and offers insights into stakeholder engagement practices as linked to the guidance and indicators identified.

This study contributes to the literature by providing rich qualitative data that explores stakeholder engagement and the expectations identified in the GRI Framework, ASX Guiding Principles, and the AS/NZS 31000:2009 and AA1000 standards. The study moves beyond motivations to explore how voluntary reporting practices may facilitate effective risk management through the process of stakeholder engagement. The findings

indicate that organisations engaging in S&ER prepared according to the GRI guidelines and accompanied by external assurance in accordance with AA1000 also engage in stakeholder engagement practices, as identified in the Australia and New Zealand standard.

Whilst it appears that the level of accordance with the GRI may not influence the degree to which organisations engage with external stakeholders, those that provide assurance against the GRI engaged in more inclusive dialogue with both internal and external stakeholders. Opportunities exist for future research to explore this relationship in more depth. Further research should also explore whether the feedback loop is closed and stakeholder concerns actually are incorporated into organisational practices.

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IMPACT OF DIVIDEND POLICY ON STOCK PRICE VOLATILITY AND MARKET VALUE OF THE FIRM: EVIDENCE FROM SRI LANKAN MANUFACTURING COMPANIES

UGVDD Gunarathne*, WAN Priyadarshanie*, SMRK Samarakoon*

*Department of Accountancy, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka

Abstract

The impact resulted from the dividend policy of a firm on the volatility of the market value of stocks is the major concern of this study, which is an issue bearing an utmost significance, when considering the objectives of a corporate. The focus of an entity should be aligned on the maximization of stock holders' wealth and this necessitates the selection of an optimum dividend policy. The present study, thus, attempts to shed a light on the above fact within the Sri Lankan context. Data was collected from a sample of companies listed under the manufacturing sector of the Colombo Stock Exchange from year 2006 to 2014. The study occupied panel data regression model for analysis. The outcome revealed that the dividend yield of the current year has a negative impact on the share price volatility, while the dividend payout ratio of both the current and previous years has a positive impact. In addition, the impact of dividend yield is negative on the market value of the firm, where the dividend payout ratio of the current year is also depicts the same impact. The findings of the study reassure the findings of the previous researchers within the Sri Lankan context in case of the market value of the firm while being contrary in case of the share price volatility. Accordingly, the firms' ability of utilizing the dividend policy as a mechanism of controlling the volatility of share prices is established. However, it will not be effective in altering the market value of the firm.

Key words: Dividend Policy, Market Price Volatility, Panel Data Regression
JEL Classification: G35

1. INTRODUCTION

Dividend policy refers to a company's policy which determines the amount of dividend payments and the amounts of retained earnings for reinvesting in new projects. This policy is related to dividing the firm's earning between payment to shareholders and reinvestment in new opportunities. Thus, the dividend decision of a firm becomes a crucial area of financial management.

Retained earnings are the most significant internal sources of financing the growth of the firm. And they influence the share prices principally through their effect upon future dividends (Walter,1956) . The fact is further elaborated by (Ahmed,2000) stating that the retained earnings contribute to increase a company's ability to generate additional earnings that could be distributed in future. On the other hand, dividends may be considered desirable from shareholders' point of view as they tend to increase the current return. Dividends however constitute the use of the firm's funds. Dividend as a percentage of earnings is called payout ratio and 100 per cent minus payout percentage is called retention ratio.

Dividend policy is also related to the capital structure indirectly and different dividend policies may require different capital structures. Since both of capital structure and dividend policy can have impact on the wealth of shareholders and dividend policy can affect capital structure too, the decision about dividend policy become complex.

In theory, the objective of a dividend policy should be to maximize a shareholder's return. As a result the value of his investment may maximize. Shareholders' return consists of two components; dividends and capital gains and the dividend policy has a direct influence on both components of the return. Thus, the companies must carefully identify an efficient approach to maximize shareholders wealth simultaneously meeting the needs of financing investments (Ilaboya & Aggreh, 2003). If an enterprise wants to be self-sufficient in financial matters, or at least depends on its own savings for a major part of its requirements, it is better not to declare a high dividend but to carry a major portion of the undistributed surplus to the reserve fund (Ahmed, 2000). Consideration of aforementioned circumstances assigns a great deal of weight to the issue of selecting an optimum dividend policy, minimizing the negative consequences that could arise thereon the firm value and the share price volatility.

On the other hand, many researchers have attempted to relate the dividend policy to share price of firm but they had conflicting results and still, there is no consensus among researches about the impact of dividend policy on share price. Different researchers have investigated the association between dividend policy and volatility of

share price at different times of which the findings are not consistent. (Baskin,1989) reported significant negative association between dividend yield and volatility of stock's price. However, the findings of (Hussainey,2011) failed to support the study of (Baskin,1989). Meanwhile another study conducted in a developing economy by (Ilaboya & Aggreh, 2003) reveled a significant positive impact of dividend yield and an insignificant negative impact of dividend payout ratio over the share price volatility.

In such a way the unavailability of consensus between the previous researchers and the significance of the issue within the field of finance, created the ground for the authors to study the same stuff. Hence, this report examines the impact of dividend policy on share price volatility within the Sri Lankan stock market.

2. LITERATURE REVIEW

The impact of the dividend policy on the stock price volatility has been tested early by many researchers ((Gordon, 1959; Miller and Modigliani, 1961; Baskin, 1989, Allen and Rachim,1996). Some theories i.e irrelevant theory, bird in hand theory, signaling theory, clientele effect theory and tax preference theory were developed to explain the effect of the dividend policy on stock price volatility.

The proposition that a company's dividend policy has no effect on shareholders' wealth was first advanced by Miller and Modigliani. According to them, under a perfect market situation, the dividend policy of a firm is irrelevant, as it does not affect the value of the firm. They argue that the value of the firm depends on the firm's earnings that result from its investment policy. Thus, when investment decision of the firm is given, dividend decision – the split of earnings between dividends and retained earnings is of no significance in determining the value of the firm. MM's hypothesis of irrelevance is based on the assumptions such as the firm operates in perfect capital markets, taxes do not exist, the firm has a fixed investment policy. Risk of uncertainty does not exist.

Myron Gordon develops one very popular model explicitly relating the market value of the firm to dividend policy. According to Gordon's model, the market value of a share is equal to the present value of an infinite stream of dividends received by the shareholders. Gordon's model contends that dividend policy of the firm is relevant and that investors put a positive premium on current dividends. As investors are rational, they want to avoid risk. The term risk refers to the possibility of not getting a return on investment. The payment of current dividends completely removes any chance of risk. If, however, the firm retains the earnings, the investors can expect to get a dividend in future. The future dividend is uncertain, both with respect to the amount as well as the timing. The rational investors can reasonably be expected to prefer current dividend. The retained earnings are evaluated by the investors as a risky promise. In case the earnings are retained, the market price of the shares would be adversely affected.

Gordon concluded that investors prefer a high dividend policy because dividends are less risky than the capital gains expected from investment of retained profits. This is described as a bird in the hand argument. That a bird in hand is better than two in the bush is based on the logic that what is available at present is preferable to what may be available in the future. However, all do not agree with this view.

3. EMPIRICAL EVIDENCE

Numerous empirical studies have been carried out to investigate the relationship between dividend policy and price volatility.

A study conducted by (Habib et al., 2012) discusses the impact of dividend policy on stock returns with special reference to Pakistan using the cross sectional regression analysis. The results revealed that payout ratio and price volatility is significantly positively related. (Nazir et al., 2010) also investigated the role of corporate dividend policy in determining the volatility in the stock prices in Pakistan using a sample of 73 firms from Karachchi stock exchange (KSE) for the period of 2003-2008. Both fixed effect and random effect models on the panel data was applied and found that the dividend policy has a strong significant relationship with the stock price volatility in KSE. It concluded that price volatility may be reduced by employing an effective corporate dividend policy. In addition, (Sadiq, 2013) analyzed the stock price volatility by taking non - financial firms listed on KSE. This study concluded that price volatility of stocks has a negative relationship with the dividend yield.

Further, (Hashemijoo, 2012) examined the relationship between dividend policy and share price volatility with a focus on consumer product companies listed in Malaysian stock market. This study shows a significant negative relationship between share price volatility with two main measures of dividend policy which are dividend yield and dividend payout. Nishat & Irfan suggested that dividend policy affects stock price volatility. The research study conducted by (Irandoost et al., 2013), assessed the effect of dividend policy on stock price volatility and investment decisions using a sample of 65 firms from Tehran Stock Exchange for the period of 2007 to 2012. The research results indicated that the dividend policy has a significant effect on stock price volatility in a short time and does not have a significant effect on stock price volatility in a long time. Moreover, it discovered that the dividend policy does not have a significant effect on investment decisions in terms of cash and accrual.

Furthermore, (Ilaboya & Aggreh, 2003) conducted a study selecting 26 firms listed in the Nigerian stock exchange from year 2004 to 2011 with the objective of examining evidence from a developing country on the relationship between dividend policy and share price volatility. They have employed pooled OLS and panel EGLS in analysis and identified share price volatility as the dependent variable and the dividend yield, dividend payout ratio as the independent variables. Further, the firm size, long-term debt, earnings volatility and asset growth rate have been considered as the control variables. The findings of the study reveal that the share price volatility is positively and significantly influenced by the dividend yield and negatively and insignificantly influenced by the dividend payout ratio. Thus, they emphasize that the companies must carefully identify an efficient approach to

maximizing shareholders wealth simultaneously meeting the needs of financing investments. In another study (Ahamad, 2000) investigated the relative importance of dividends and retained earnings to explain the stock price variations in Bangladesh where there is an environment of higher market demand for dividends. The findings suggest that both dividends and retained earnings influence the stock price and they have their impact ignoring the usual expectation of stronger dividend impact on non-growth industries and retained earnings impact on growth industries. Further they recommend the Bangladesh business enterprises to follow a stable dividend policy maintaining a conservative payout ratio.

On the other hand a case study by (Foerster & Sapp, 2006) reveals significant facts on the changing role of dividends from the nineteenth to twenty first century. They have selected the Bank of Montreal, the oldest financial institution in Canada and studied how the dividend policy has evolved since its establishment in 1817. Importantly, the bank has paid dividends for 175 years consistently since 1829. As per the findings, annual dividends and earnings changes move together and are more variable in the early periods and more stable in the subsequent periods, with the dividend payout ratio decreasing since World War II. And there is a distinctive shift in dividend policy since the end of World War II to one maintaining a specific level of dividends rather than a specific payout ratio.

However, very few studies have attempted to observe the impact of dividend policy on shareholders' wealth in Sri Lanka. Periyathamby & Navaratnaseelan examined the impact of firm's dividend policy on shareholders' wealth from listed companies in the CSE during the period from 2005/06 to 2010/11. It revealed that there is no significant relation between dividends and share prices. Dewasiri & Weerakoon Banda (2014) examined the relationship between dividend policy and stock price volatility using a sample of 40 companies listed in the Colombo Stock Exchange for a period of ten years from 2003 to 2012. They found that there is a significant negative impact from dividend payout, a significant positive impact from company size and no evidence of significant impact from dividend yield on stock price volatility. The findings suggested that high dividend payout would lead to less volatile stock price, whilst higher dividend yield pave the way towards more volatility in stock price in the short run.

4. METHODOLOGY

4.1. Sample description and data

Panel data had been utilized for this study from year 2006 to 2014 for 12 manufacturing companies which are listed and actively traded in the Colombo stock exchange for all these years. Data collected from the annual reports published by the selected companies as the sample. A single sector selected with the intention of eliminating potential industry effects that could arise.

4.2. Variables

The regression model which primarily links the volatility of share price to the dividend yield and payout ratio has been expanded by the control variables. Control variables include firm size and asset growth which have an impact on both dividend policy and stock price volatility. Possibly the size of the firm affects the price volatility because small firms usually has less diversification in their business activities. Moreover it is possible that small firms have less information available to investors about their stock market. Another reason for the impact of size on share price volatility is that firms' stock may be more liquid, so their share price can be more volatile than larger firms. (Baskin, 1989) proposed that firms which have more scatter body of shareholders are more likely to use dividend as a signaling device. Therefore the dividend policy can be affected by the firm size.

Further dividend policy may have an inverse relationship with the growth because firms in their growth stage are more likely to keep their income for investing in new investment opportunities. Based on arbitrage effect, the level of growth and share price volatility could be inversely related.

Ultimately, the regression models are expressed as follows.

$$\mathrm{Pvol_{tj}} = \alpha + \beta_1 \mathrm{DY_{tj}} + \beta_2 \mathrm{DY_{t-1,j}} + \beta_3 \mathrm{POR_{tj}} + \beta_4 \mathrm{POR_{t-1,j}} + \beta_5 \mathrm{Size_{tj}} + \beta_6 \mathrm{Growth_{tj}} + \varepsilon_{ij} \quad (1)$$

$$\mathrm{lnMV_{tj}} = \alpha + \beta_1 \mathrm{DY_{tj}} + \beta_2 \mathrm{DY_{t-1,j}} + \beta_3 \mathrm{POR_{tj}} + \beta_4 \mathrm{POR_{t-1,j}} + \beta_5 \mathrm{Size_{tj}} + \beta_6 \mathrm{Growth_{tj}} + \varepsilon_{ij} \quad (2)$$

Where

$Pvol_{tj} = share\ price\ volatility\ of\ firm\ j\ in\ period\ t$
$lnMv_{tj} = natural \log of\ market\ value$
$DY_{tj} = dividend\ yeild\ of\ firm\ j\ in\ period\ t$
$DY_{t-1,j} = dividend\ yeild\ of\ firm\ j\ in\ period\ t-1$
$POR_{tj} = payout\ ratio\ of\ firm\ j\ in\ period\ t$
$POR_{t-1,j} = payout\ ratio\ of\ firm\ j\ in\ period\ t-1$
$Size_{tj} = size\ of\ the\ firm\ j\ in\ period\ t$
$Growth_{tj} = Asset\ growth\ of\ firm\ j\ in\ period\ t$

4.3. Measurement of variables

Price volatility (Pvol)

Price volatility is the dependent variable in the model 01 (equation 01). The variable had been calculated for the years from 2006 to 2014. Annual range of stock prices has been divided by the mean value of higher and lower stock prices during the one year period.

$$PVOL = \frac{Market\ price_{tj} - Market\ Price_{t-1},j}{\{(Market\ price_{Highest,tj} + Market\ Price_{Lowest,tj})/2\}} \quad (3)$$

Dividend yield (DY_{tj} and $DY_{t-1,j}$)

Dividend yield has been calculated by dividing the dividend per share by the market value per share of the company for each and every year.

$$DY_{tj} = \frac{Dividend\ per\ share_{tj}}{Market\ price_{tj}} \quad (4)$$

$$DY_{t-1,j} = \frac{Dividend\ per\ share_{t-1,j}}{Market\ price_{t-1,j}} \quad (5)$$

Payout ratio (POR_{tj} and $POR_{t-1,j}$)

The payout ratio is calculated by dividing the total amount of dividend paid by total earnings for the year.

$$POR_{tj} = \frac{Dividend\ per\ share_{tj}}{Earnings\ per\ share_{tj}} \quad (6)$$

$$POR_{t-1,j} = \frac{Dividend\ per\ share_{t-1,j}}{Earnings\ per\ share_{t-1,j}} \quad (7)$$

Firm size ($Size_{tj}$)

Firm size is calculated in terms of natural log value of the total assets.

$$Size_{tj} = \ln(Total\ assets_{tj}) \quad (8)$$

Growth in Assets ($Growth_{tj}$)

Growth in assets is calculated by dividing the difference of total assets in two consecutive years by the value of total assets in earlier of the two years.

$$Growth_{tj} = \frac{(Total\ assets_{tj} - Total\ assets_{t-1,j}}{Total\ assets_{t-1,j}} \quad (9)$$

Market Value ($lnMv_{tj}$)

Market value has been taken as the natural log of the market capitalization of a company in the sample at the end of the each year.

$$lnMv_{tj} = \ln(market\ price_{tj} \times number\ of\ ordinary\ voting\ shares_{tj}) \quad (10)$$

4.4. Data Analysis

4.4.1. Descriptive statistics

The statistical description of the variables which are used in this research is represented in table 1. It indicates the mean, median, standard deviation and other measures of variables used in this study.

The table 4 depicts that the 78.46% of the changes in the market value of the manufacturing sector companies in Sri Lanka is explained by the Dividend Yield of the current year, Dividend Yield of the previous year, Dividend Payout Ratio of the Current year, Dividend Payout ratio of the previous year, Asset growth and the firm size by the application of the Panel Least Squares methodology.

As it is clearly demonstrated, the Dividend Yield of the present year, Dividend Yield of the previous year and the Dividend Payout Ratio of the previous year shows a negative relationship with the market value which is not significant. On the other hand the Dividend Payout Ratio of the present year shows a positive relationship which is again not significant. The only variable that shows a significant relationship is Firm Size. The Firm Size is positively related with the market value of the firms at the 5% level. In addition the Asset Growth exhibits an insignificant negative relationship with the market value. Importantly, the overall model is significant at the 1% level.

Table 1. Descriptive statistics

	Dy_t	Dy_{T-1}	$Size$	$lnMV$	POR_t	POR_{t-1}	$Pvol$
Mean	0.038921	0.039779	15.46607	21.30240	0.840538	0.873568	-0.219389
Median	0.027995	0.027322	15.18461	21.45749	0.275229	0.291667	0.015208
Maximum	0.230769	0.230769	21.23793	24.59347	50.00000	50.00000	1.369972
Minimum	0.000000	0.000000	12.98417	17.35572	-3.305785	-3.305785	-18.85417
Std. Dev.	0.040663	0.042685	1.925212	1.457751	4.848797	4.896821	1.912734
Skewness	1.920135	1.879374	1.684593	-0.165071	9.870022	9.747877	-8.742447
Kurtosis	7.831931	7.219707	5.827054	2.489992	100.6223	98.34623	85.13733
Jarque-Bera	171.4285	139.7118	87.04642	1.660961	44225.67	41435.58	31735.18
Probability	0.000000	0.000000	0.000000	0.435840	0.000000	0.000000	0.000000
Sum	4.203442	4.176784	1670.336	2300.659	89.93757	91.72469	-23.69405
Sum Sq. Dev.	0.176927	0.189493	396.5892	227.3790	2492.148	2493.801	391.4651
Observations	108	108	108	108	108	108	108

Table 2. Correlation analysis

Covariance Analysis: Ordinary
Sample: 2006 2014
Included observations: 108
Balanced sample

Correlation							
t-Statistic							
Probability							
	Dy_t	Dy_{T-1}	$Size$	$lnMV$	POR_t	POR_{t-1}	$Pvol$
Dy_t	1.000000						

Dy_{T-1}	0.774189	1.000000					
	12.35306	-----					
	0.0000	-----					
$Size$	-0.423387	-0.436341	1.000000				
	-4.719918	-4.897670	-----				
	0.0000	0.0000	-----				
$lnMV$	0.295564	0.350369	-0.109349	1.000000			
	3.124655	3.778035	-1.111036	-----			
	0.0023	0.0003	0.2692	-----			
POR_t	0.170430	0.116773	-0.122323	0.057375	1.000000		
	1.746814	1.187471	-1.244748	0.580415	-----		
	0.0837	0.2378	0.2161	0.5629	-----		
POR_{t-1}	0.163213	0.171168	-0.126096	0.060821	-0.047648	1.000000	
	1.670769	1.754611	-1.283758	0.615402	-0.481766	-----	
	0.0978	0.0823	0.2021	0.5397	0.6310	-----	
$Pvol$	-0.055674	0.131588	0.078358	0.031718	0.015359	0.009219	1.000000
	-0.563155	1.340630	0.793814	0.320493	0.155139	0.093114	-----
	0.5746	0.1830	0.4291	0.7493	0.8770	0.9260	-----

Table 3. Regression results Model 01

Dependent Variable: PVOL
Method: Panel Least Squares
Sample: 2006 2014
Periods included: 9
Cross-sections included: 12
Total panel (balanced) observations: 108

Variable	***Coefficient***	***Std. Error***	***t-Statistic***	***Prob.***
C	-31.04031	8.547661	-3.631439	0.0005
Growth	0.672030	0.652312	1.030227	0.3058
Size	1.946491	0.543031	3.584492	0.0006
Dy_t	-13.18251	8.795939	-1.498704	0.1376
Dy_{t-1}	25.49169	8.649327	2.947246	0.0041
POR_t	0.018459	0.039493	0.467402	0.6414
POR_{t-1}	0.008736	0.038971	0.224157	0.8232
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.283892	Mean dependent var		-0.231851
Adjusted R-squared	0.142336	S.D. dependent var		1.947883
S.E. of regression	1.803937	Akaike info criterion		4.173931
Sum squared resid	279.8604	Schwarz criterion		4.631614
Log likelihood	-199.0444	Hannan-Quinn criter.		4.359352
F-statistic	2.005509	Durbin-Watson stat		1.441337
Prob(F-statistic)	0.019366			

With the application of the same methodology (Panel Least Squares) it was found that the Dividend Yield of the previous year and the firm size is having a relationship with the stock price volatility which is significant at the 5% level. The dividend yield of the current year exhibited a negative relationship with the stock price volatility which is not significant. Also, the Dividend Payout Ratio and the Assets growth demonstrate an insignificant positive relationship with the stock price volatility.

In case of the overall model, it is significant at the 5% level. Even though, the explanatory power of the model remains slightly low within the present circumstances, allowing only the changes amounting to 36.37% of the stock price volatility to explain by the identified variables within the manufacturing sector companies in Sri Lanka.

Table 4. Regression results- Model 02

Dependent Variable: LNMV
Method: Panel Least Squares
Sample: 2006 2014
Periods included: 9
Cross-sections included: 12
Total panel (balanced) observations: 108

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	8.895340	3.466415	2.566149	0.0120
Growth	-0.219048	0.264539	-0.828037	0.4099
Size	0.820714	0.220221	3.726780	0.0003
Dy_t	-5.128517	3.567102	-1.437726	0.1541
Dy_{t-1}	-0.899720	3.507645	-0.256502	0.7982
POR_t	0.001641	0.016016	0.102456	0.9186
POR_{t-1}	-0.000464	0.015804	-0.029381	0.9766
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.784640	Mean dependent var		21.35570
Adjusted R-squared	0.742069	S.D. dependent var		1.440466
S.E. of regression	0.731568	Akaike info criterion		2.368858
Sum squared resid	46.02651	Schwarz criterion		2.826541
Log likelihood	-105.1806	Hannan-Quinn criter.		2.554278
F-statistic	18.43127	Durbin-Watson stat		1.219717
Prob(F-statistic)	0.000000			

5. CONCLUSION

The objective of this study is to determine the impact of dividend policy on stock price volatility and market value of Sri Lankan manufacturing companies. The empirical estimation is based on cross – sectional regression analysis of the relationship between stock price volatility and dividend policy after controlling for firm size and asset growth.

The empirical evidence revealed a negative impact from dividend yield of the current year on stock price volatility, but this relationship is not statistically significant. Dividend payout ratio for both current and previous year has shown a positive insignificant relationship with share price volatility which is contrary to the results of previous studies done in Sri Lanka. Moreover, this study implied that share price volatility has significant positive relationship with size and insignificant positive relationship with asset growth.

The empirical results of this study also showed, there is a negative relationship between dividend yield and market value. While dividend payout ratio of the previous year is showing a significant negative relationship with market value, dividend payout ratio of the current year shows an insignificant positive relationship. The findings of this study are consistent with the previous studies conducted in Sri Lanka.

According to (Miller & Modigliani, 1961) the effect of a firm's dividend policy on the current price of its shares is a matter of considerable importance, not only to the corporate officials who must set the policy, but to investors planning portfolios and to economists seeking to understand and appraise the functioning of the capital markets. Hence, the results of this study too facilitate the managers of companies to identify the way, how they should change the volatility of their share prices by altering the dividend policy. Indeed, it may be possible for them to use dividend policy as a device for controlling their share price volatility. They may be able to reduce their share price volatility by increasing their dividend yield. However, the dividend policy does not affect the value of the firms.

The results of this study are only limited to the companies listed under the manufacturing sector in the Colombo Stock Exchange. Further studies conducted within the different sectors of the Colombo Stock Exchange is needed for expanding the results to other sectors and to the entire stock market.

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OWNERSHIP STRUCTURE AND CORPORATE DIVERSIFICATION DECISION: A STUDY OF VIETNAMESE LISTED FIRMS

Duc Nam Phung *, Thi Bich Nguyet Phan*, Thi Lien Hoa Nguyen*, Thi Phuong Vy Le*

* University of Economics Hochiminh City, School of Finance, Vietnam. 279 Nguyen Tri Phuong, District 10, Hochiminh city, Vietnam

Abstract

This research examines the impact of the ownership structure on corporate diversification decision of listed firms in Vietnam over the period of 2007 and 2012. The empirical results from logit model show that while state ownership has positive impact on corporate diversification decisions of the firms, foreign ownership has negative impact on corporate diversification decision of the firms. This implies that government ownership tends to encourage corporate diversification strategy, while foreign ownership may plays monitoring role and discourage corporate diversification strategy in emerging market context.

Keywords: Corporate Diversification, Vietnam, State Ownership, Foreign Ownership

1. INTRODUCTION

As an emerging market, Vietnam plays a considerable role in world economy. GDP growth rate of Vietnam is higher compared to the average growth rate of emerging and developing markets. (International Monetary Fund 2010). Before 1986, Vietnam was a centrally planned economy that is characterized by state ownership. However, the 1986 economic reform (known as Doi Moi) led to privatization of state owned enterprises. The privatization process has led to a gradual change in ownership structure of Vietnamese firms. There was appearance of private ownership and foreign ownership. Foreign ownership has become an considerable part of ownership structure in Vietnamese firms (Phung & Le 2013). It is observed that state ownership and foreign ownership contribute to more than a half of GDP of Vietnam (Vietnam General Statistics Office 2006, 2010, 2014). Thus, state ownership and foreign ownership are important in ownership structure of firms in Vietnam.

Corporate diversification is an expansion strategy adopted by many enterprises around the globe (Lin & Su 2008). With the encouragement of Vietnamese government since the 1990s, many Vietnamese firms, especially state-owned firms, have tended to diversify. Research on topic of corporate diversification is still unexplored in Vietnam. Identifying determinants of corporate diversification is crucial when examining effect of corporate diversification on firm performance. Agency problem is a main reason for corporate diversification (Martin & Sayrak 2003), and ownership structure is a major factor affecting a firm's propensity to diversify. Therefore, the purpose of this paper is to examine effect of ownership structure (state ownership and foreign ownership) on corporate diversification decision in the context of Vietnam.

Using data of Vietnamese listed firms over the period of 2007 and 2012, this paper finds that state ownership has positive effect on corporate diversification decision and foreign ownership has negative effect on corporate diversification decision. This implies a political and social goals of state ownership, and monitoring role of foreign ownership in firms. The results contribute to the literature of ownership structure in the context of emerging market.

The rest of the paper is organized as follows. Section 2 discusses literature review of relationship between ownership and corporate diversification. Section 3 develops hypotheses. Section 4 discusses research methodology. Section 5 discusses summary statistics and correlation matrix. Section 6 discusses empirical results and finally, section 7 concludes.

2. LITERATURE REVIEW

When there is existence surplus resources in current businesses, a firm is likely to diversify its operations. Corporate diversification is often considered as a strategy for firms in order to expand their operation and reach the goal of profit maximization. An explanation for corporate diversification is changes in economic or industry environments (Campa & Kedia 2002). Firms may escape from their current businesses when these businesses are not profitable. Firms may benefit from there multi businesses since they can survive longer even if a specific business fails (Bercovitz & Mitchell 2007).

From the perspective of agency theory, Aggarwal and Samwick (2003) reveal two arguments which may be used to explain firms' propensity to diversify. They are risk reduction and private benefit of firms' managers. When senior managers own shares in firms, they may bear idiosyncratic risk when the firms do not diversify. The higher managerial ownership is; the higher idiosyncratic risk managers face and thus they try to conduct corporate diversification strategy for lowering the risk. As gaining more benefits such as reputation or compensation, managers may make investments in many new area. This give managers incentive to diversify firm's business.

Amihud and Lev (1999) inspect the effect of ownership structure on the corporate diversification strategy and find that the relation between corporate diversification and ownership concentration is negative. Denis, Denis and Sarin (1999) show evidence that there is a negative link between corporate diversification level and managerial ownership. They state that, as the managers own more shares, they do not tend to follow the diversification strategy. Chen, S-S and Ho (2000) find that the level of diversification has negative relation to outside block holder ownership, but it is unrelated to insider ownership. They find that diversified firms which have lower value than single segment firms, often associate with low managerial ownership.

Chen, C-J and Yu (2012) state that most studies investigate the relationship between corporate diversification and ownership structure within the context of developed economies while there are few studies focusing on emerging markets. Their study examines the relationship between managerial ownership, corporate diversification, and firm performance in the context of Taiwan. They show that the relationship between managerial ownership and corporate diversification is not a linear relationship but a U-shaped relationship. This implies that higher managerial ownership leads to a decrease in diversification at a level, but after this point, higher managerial ownership leads to an increase in diversification.

Del Brio, Maia-Ramires and De Miguel (2011) argue that concentrated ownership is helpful in a weak investor protection market because large shareholders can monitor the managers. Ownership concentration can be considered as an alternative means for protecting investors in the context of poor investor protection civil law countries. They find a non-linear relationship between ownership concentration and corporate diversification for Spanish firms. Their results state that the concentration of ownership plays a monitoring role towards the manager's actions. However, when the concentration is too high, exceeding a breakpoint, controlling owners tend to follow diversification strategy that can expropriate the benefits of minority shareholders.

Ownership identity is also an element impacting the firm's diversification strategy. Government owners normally have dissimilar purposes compared to those of private owners because government owners have goals that regularly accompany political interests (Shleifer & Vishny 1994). Delios and Wu (2005) find that legal person ownership[2] concentration has negative effect on diversification activities. Delios, Zhou and Xu (2008) find that state ownership has a positive impact on diversification, and private ownership has a negative impact on diversification in China. Zhao (2010) indicates that business groups owned by the government are inclined to increase their level of corporate diversification.

3. HYPOTHESES

Research findings reveal that ownership structure affects diversification (Bae, Kwon & Lee 2008; Chen, S-S & Ho 2000; Delios, Zhou & Xu 2008; Gomez-Mejia, Makri & Kintana 2010; Jiraporn et al. 2006; Kim et al. 2009; Lin & Su 2008; Lins & Servaes 2002). However, most studies focus on the ownership of large shareholders and managers, while there are few studies that examine state ownership and foreign ownership. Delios, Zhou and Xu (2008) shows that the identity of ownership structure may determine the decision of firms to diversify. Ownership identity can affect the ability and level of diversification of firms.

Differences in ownership structure may affect diversification decision of firms. For example, family owned firms try to diversify to spread risk and generation transition (Nachum 1999), while the propensity of state owned firms is driven by the social and political goals rather than the value maximization objectives (Wan et al. 2011). When controlling shareholders occupy a large fraction of total board seats, they have incentive to expropriate other shareholders through corporate diversification (Tsai, Young & Hsu 2011). Hence, it can be argued that when state ownership is controlling ownership in firms, those firms may have high level of diversification

In the case of Vietnam's market, although state ownership has decreased gradually due to privatization of state owned enterprises[3], it can be seen that state ownership plays an important role in Vietnam (Nguyen, Oates & Dunkley 2014; Sjöholm 2006; Vietnam National Assembly 1992, 2013). State ownership on average accounts for around 46 percent of equity in privatized firms (Sjöholm 2006). Thus, this study proposes the following hypothesis:

H.1: when state ownership increases, listed firms are likely to conduct corporate diversification strategy.

Foreign ownership increasingly occupies a significant position in the ownership structure of listed firms in Vietnam. Foreign investment helps to provide investment capital, transform economic and labour structure, and promote technology[4]. There are few studies that examine the effect of foreign ownership on the level of corporate diversification. Ramaswamy and Li (2001) show that there is a negative relationship between number of foreign directors and unrelated diversification for Indian firms. This is due to the fact that foreign directors have knowledge and experience that can monitor and dampen corporate diversification strategy. Yoshikawa, Rasheed and Del Brio (2010) state that corporate diversification is not motivated by foreign shareowners because it is difficult to manage diversified firms. They argue that foreign ownership is considered as a means to monitor Japanese firms, and that foreign ownership restrain the firms' managers from engaging in corporate diversification strategies by decreasing managers' bonuses. Therefore, the following hypothesis will be tested in order to examine the link between foreign ownership and corporate diversification.

H.2: when foreign ownership increases, listed firms are less likely to conduct corporate diversification strategy.

4. RESEARCH METHODOLOGY

4.1. Empirical model specification

[2] Legal person ownership exists in China.

[3] The privatization program was initiated in 1992 (Sjöholm 2006).

[4] http://www.investinvietnam.vn/lng/2/detail/2752/Foreign-Investment-in-Vietnam.aspx retrieved on 30 Jan. 15.

In order to test the hypotheses of the propensity of corporate diversification in Vietnamese listed firms (H.1 and H.2), this thesis employs the following empirical model:

$$DIV_{it} = \alpha + \beta_1 OWN_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad (1)$$

where DIV_{it} is a binary variable representing whether firm i is undergoing a corporate diversification strategy at time t, OWN_{it} is firm's ownership structure (state or foreign), X_{it}s are control variables of firm i at time t, and ε_{it} is an error term.

Since the dependent variable is binary, a logit model is used for the estimation. The logit model allows for estimating the probability that firms diversify or not by predicting the outcome of the binary dependent variable from independent variables. The general logit model is as follows:

$$p_i = E(y_i = 1|x_i) = \alpha + \beta x_i \quad (2)$$

$$p_i = \frac{e^{\alpha+\beta x_i}}{1 + e^{\alpha+\beta x_i}} \quad (3)$$

$$ln\left[\frac{p_i}{1-p_i}\right] = \alpha + \beta x_i \quad (4)$$

where y_i is a binary dependent variable, x_i is an independent variable, α is a constant term, and p_i is the probability of undertaking corporate diversification (odds ratio).

In order to estimate the parameters in equation (4), maximum likelihood estimation is used (Czepiel 2002; Lin & Su 2008). The likelihood function and log likelihood function are expressed as follows:

$$\mathcal{L} = \prod_{i=1}^{n} p_i\,(x_i)^{y_i}(1 - p_i(x_i)^{y_i}) \quad (5)$$

$$ln\mathcal{L} = \sum_{i=1}^{n} y_i \log[p_i(x_i)] + (1 - y_i) log 1 - p_i(x_i) \quad (6)$$

$$ln\mathcal{L} = \sum_{i=1}^{n} -log 1 + e^{\alpha+\beta x_i} + \sum_{i=1}^{n} y_i(\alpha + \beta x_i) \quad (7)$$

In order to find the parameters from the log likelihood function, we differentiate the log likelihood with respect to each parameter and set the outcome to zero.

$$\frac{\partial ln\mathcal{L}}{\partial \beta} = -\sum_{i=1}^{n} \frac{1}{1 + e^{\alpha+\beta x_i}} e^{\alpha+\beta x_i} x_{ik} + \sum_{i=1}^{n} y_i x_{ik} \quad (8)$$

Percent correct prediction statistic is a measure of goodness of fit for logit model. This measure shows how well the model predicts the probability (Wooldridge 2011). The percent correct prediction statistic assumes that if the estimated p_i (odds ratio) is greater than or equal to 0.5 then the event is expected to occur, it is not expected to occur otherwise.

4.2. DATA AND VARIABLES

4.2.1. Data

The data used to examine the effect of ownership on firm's decision to diversify and the effect of corporate diversification on firm performance is by Vietstock[5] which provides data of all listed firms in Ho Chi Minh Stock Exchange and Hanoi Stock Exchange. The data initially includes 4014 firm-year observations of listed firms on the two stock exchanges. The study excludes financial firms such as banks, security companies, insurance companies in accordance with earlier studies (Chen, C-J & Yu 2012; Dastidar 2009; Hann, Ogneva & Ozbas 2013; Jiraporn, Kim & Davidson III 2008; Lien & Li 2013; Lin & Su 2008; Lins & Servaes 2002). The financial firms are subject to regulation and financial information that are different to other firms (Jiraporn, Kim & Davidson III 2008). The information of sales segments is collected from annual explanations of financial statement and annual reports of listed companies. The sales segments of each company are classified into industries based on Vietnam Standard Industrial Classification 2007 (VSIC 2007). Because of availability of data, this study only focuses on unrelated diversification for which information is available. Consequently, the final data is a dataset of 2,696 firm-year observations spanning from 2007 to 2012 of Vietnamese listed firms.

4.2.2. Variables

Corporate diversification is measured by the dummy variable which equals one if a firm diversifies, and otherwise zero (Chen, S-S & Ho 2000). Firms are considered diversified if at least one segment's sales account for at least 90% of total sales (Lin & Su 2008; Lins & Servaes 2002).

Ownership structure in recent studies, is insider ownership, outside ownership (Chen, S-S & Ho 2000), institution ownership (Villalonga 2004), concentrated ownership (Bae, Kwon & Lee 2008), family ownership (Gomez-Mejia, Makri & Kintana 2010) and state ownership (Delios, Zhou & Xu 2008). This study focuses on state ownership and foreign ownership, measured as fraction of shares held by the state and by foreign investors.

In accordance with Campa and Kedia (2002) and Dastidar (2009), this study uses various control variables to investigate the impact of ownership on the likelihood of taking corporate diversification i.e. firm characteristics such as firm size, firm leverage, book to market ratio, firm age, profitability; and industry and economy characteristics such as fraction of diversified firms in industry and GDP growth rate.

Firm size is a factor that impacts on corporate diversification. It can be argued that when its size increases, a firm tends to diversify its business because it has more resources for expanding. Singh, Mathur and Gleason (2004) indicate that firm size and corporate diversification have a positive relationship. In this study, firm size is measured by taking the logarithm of total assets (Berger & Ofek 1995; Chen, S-S & Ho 2000; Çolak 2010; Dastidar 2009).

Firm leverage refers to financial leverage used by the firm, which shows to what extent the firm's assets are financed by debt. Firms with high debt ratio may have ability to access more funds for business expansion (Chen, R, Dyball & Wright 2009). He (2009) shows that diversified firms are likely to

[5] http://vietstock.vn/

have higher firm leverage. Mishra and Akbar (2007) contend that it is easier for diversified firms to raise funds from debt. Besides, ability of raising debt funds also help firms to invest more into new industries. Firm leverage is ratio of total debt over total assets (Chen, C-J & Yu 2012; Chen, R, Dyball & Wright 2009; David et al. 2010).

Book to market ratio is a proxy for growth opportunity (Singh, Mathur & Gleason 2004). Firms with low growth opportunities tend to expand their operations through diversification and firms with high growth opportunities have low level of corporate diversification. The book to market ratio is calculated by taking book value of firm's equity (or book value per share) divided by market value of firm's equity (or market value per share) (Hann, Ogneva & Ozbas 2013).

Firm age represents the number of years that a firm exists. It can be argued that firms with long history may have capacity to do business in new industries. Besides, old firms may have less growth opportunities, and then they tend to diversify their businesses. Evidence shows a positive effect of firm age on corporate diversification in developed market (Denis, Denis & Sarin 1997) and emerging market (Chen, C-J & Yu 2012; Lien & Li 2013). In this study, firm age is measured by the number of years since a firm registered as corporation (Choi, Sul & Min 2012).

Profitability is a firm characteristic that affects corporate diversification decision. It is argued that firms with low profitability tend to expand their businesses through corporate diversification in order to find profitable opportunities (Campa & Kedia 2002). Profitability influences the way that firms with high profitability tend to be less diversified (Campa & Kedia 2002). It is also found that multi-segments firms are likely to have poor profitability (Claessens et al. 1999). In this study, profitability is measured by the ratio of earnings before tax and interest to sales (Campa & Kedia 2002; Dastidar 2009).

Industry characteristic is a factor that influences firm's corporate diversification decision (Maksimovic & Phillips 2002). Fraction of diversified firms in industry represents for industry characteristic as it shows corporate diversification's trend in industry where firms operate. This variable indicates attractiveness of an industry which implies that a firm which operates in an industry that has a high fraction of diversified firms is likely to diversify (Campa & Kedia 2002). GDP growth rate indicates macro economic situation of market. It is argued that high GDP growth encourages firms to diversify businesses (Campa & Kedia 2002).

5. SUMMARY STATISTICS AND CORRELATION MATRIX

Table 1 illustrates the summary statistics of variables used in this study over the period 2007 to 2012.

Table 1. Descriptive statistics of variables

Variable	*Observations*	*Mean*	*Standard deviation*	*Minimum*	*Maximum*
DDIV	2696	0.331	0.471	0.000	1.000
STATE	2678	0.251	0.237	0.000	0.782
FOREIGN	2679	0.076	0.119	0.000	0.490
SIZE	2678	26.715	1.291	24.353	29.191
PROF	2678	0.097	0.096	-0.052	0.345
LEV	2678	0.522	0.212	0.134	0.845
AGE	2696	6.352	2.952	0.000	19.000
BM	2684	1.366	0.906	0.272	3.491
NDIV	2696	33.086	20.515	0.000	100.000
GDP	2696	5.924	0.577	5.250	7.130

The table reports the summary statistics of variables over the period 2007 to 2012 for Vietnamese listed firms. DDIV is a dummy variable of corporate diversification. Dummy equals one if a firm diversifies; otherwise it is zero. STATE is state ownership, i.e. stock held by government. FOREIGN is foreign ownership. i.e. stock held by foreign investors. SIZE is firm size, i.e. natural log of assets. PROF is firm profitability, i.e. the ratio of operating income and sales. LEV is firm leverage, measured as the ratio of total debt over total assets. AGE is firm age, the natural log of number of years since a firm registered as a corporation. BM is the book to market ratio. NDIV is the fraction of diversified firms in an industry. GDP is GDP growth rate.

The mean value of corporate diversification variable is 0.331 which indicates 33.1 percent of observed firms diversify. State ownership has a mean value of 25.1 percent which is lower than the state ownership value of 34.59 percent in China (Lin & Su 2008). Foreign ownership has a mean value of 7.6 percent which is considerably smaller than that of 20.97 percent in India (Ramaswamy & Li 2001). The average value of firm size (natural log of assets) is 26.715 and its standard deviation is 1.291. Profitability of listed firms in Vietnam has an average value of 9.7 percent, with a standard deviation of 0.096. The mean value of profitability is slightly higher than that of 6 percent in the U.S. (Çolak 2010). Leverage variable shows a mean value of 52.2 percent and a standard deviation of 0.212. The mean value of 52.2 percent is higher than those of 33.2 percent in Japan (Fukui & Ushijima 2007), and 48 percent in Australia (Chen, R, Dyball & Wright 2009), but similar to value of 52.1 percent in China (Chen, S 2010). The average firm age of Vietnamese listed firms is 6.352, which is considerably lower than that of 21.63 in the U.S. (Çolak 2010). The mean value of book to market ratio is 1.366, with a standard deviation of 0.906. The mean value of book to market ratio implies a market to book ratio of 0.732 which is relatively lower than that of the U.S. (2.933) (Franco, Urcan & Vasvari 2010). The average value of fraction of diversified firms in industry is 33.086 percent. This value is lower than that of 59.48 percent in China (Lin & Su 2008), and 68 percent in Singapore (Chen, S-S & Ho 2000). The average GDP growth rate of Vietnam over the period from 2007 to 2012 is 5.924 percent.

Table 2 illustrates the correlation matrix of variables. Level of corporate diversification is positively correlated with state ownership (STATE), and negatively correlated with foreign ownership (FOREIGN). Level of corporate diversification is positively correlated with a firm's size, leverage, investment, age, book to market ratio and the fraction of diversified firms in industry, and negatively correlated with profitability, dividend yield and GDP growth rate.

Table 2. Correlation matrix of variables

	DDIV	*STATE*	*FOREIGN*	*SIZE*	*PROF*	*LEV*	*AGE*	*BM*	*NDIV*	*GDP*
DDIV	1.00									
STATE	0.03	1.00								
FOREIGN	-0.06	-0.12	1.00							
SIZE	0.09	0.01	0.34	1.00						
PROF	-0.05	0.04	0.21	0.16	1.00					
LEV	0.06	0.07	-0.23	0.32	-0.21	1.00				
AGE	0.08	-0.17	0.12	-0.07	-0.07	-0.16	1.00			
BM	0.11	-0.08	-0.14	-0.01	-0.29	0.08	0.24	1.00		
NDIV	0.44	-0.02	-0.14	0.07	-0.08	0.18	0.04	0.20	1.00	
GDP	-0.01	0.03	0.02	-0.03	0.10	-0.02	-0.19	-0.23	-0.03	1.00

Note: The table reports the correlation of variables over the period 2007 to 2012 for Vietnamese listed firms. DDIV is the dummy variable of corporate diversification. Dummy equals one if a firm diversifies; otherwise it is zero. STATE is state ownership, i.e. stock held by government. FOREIGN is foreign ownership, i.e. stock held by foreign investors. SIZE is firm size, i.e. the natural log of assets. PROF is firm profitability, i.e. the ratio of operating income and sales. LEV is firm leverage, measured as the ratio of total debt over total assets. AGE is firm age, the natural log of the number of year since a firm registered as a corporation. BM is the book to market ratio. NDIV is the fraction of diversified firms in industry. GDP is GDP growth rate.

6. EMPIRICAL RESULTS

Table 3 reports the results of the logit models for the effect of ownership structure on corporate diversification decisions as per equation (1). Columns (1) and (3) report the logit models of corporate diversification decision, regressed on ownership structure (state and foreign ownership) and firm-specific characteristics. Columns (2) and (4) report the logit models of corporate diversification decision, regressed on ownership structure, firm-specific characteristics, and industry and economic characteristics. The table illustrates the average marginal effect of ownership structure and other independent variables on corporate diversification propensity of listed firms in Vietnam. The marginal effect is computed as the discrete change in the expected value of the corporate diversification dummy variable as it changes from 0 to 1.

Table 3. Logit estimation results of corporate diversification decisions

	(1)	(2)	(3)	(4)
	DDIV	DDIV	DDIV	DDIV
STATE	0.128***	0.122***		
	(0.001)	(0.001)		
FOREIGN			-0.276***	-0.277***
			(0.003)	(0.003)
SIZE	0.041***	0.040***	0.052***	0.051***
	(0.000)	(0.000)	(0.000)	(0.000)
LEV	-0.126**	-0.134**	-0.158***	-0.165***
	(0.017)	(0.011)	(0.004)	(0.003)
AGE	0.015***	0.015***	0.016***	0.016***
	(0.000)	(0.000)	(0.000)	(0.000)
BM	0.025*	0.018	0.022*	0.015
	(0.058)	(0.166)	(0.089)	(0.239)
PROF	-0.215**	-0.172	-0.168	-0.129
	(0.046)	(0.107)	(0.121)	(0.229)
NDIV		0.010***		0.010***
		(0.000)		(0.000)
GDP		0.053**		0.060**
		(0.029)		(0.013)
Year controlled	Yes	Yes	Yes	Yes
Industry controlled	Yes	Yes	Yes	Yes
Observations	2591	2591	2592	2592
Log-likelihood value	-1408.704	-1377.096	-1410.372	-1378.890
Pseudo R-squared	0.149	0.168	0.148	0.167
Wald chi-squared	355.517	407.607	358.208	407.489
	0.000	0.000	0.000	0.000
Percent correct prediction	73.215	73.447	72.415	73.264

*Note: The table presents the average marginal effect of independent variables from the logit regression model. The dependent variable is the corporate diversification dummy (DDIV). STATE is state ownership, i.e. stock held by government. FOREIGN is foreign ownership and equals stock held by foreign investors. SIZE is firm size, calculated as the natural log of assets. LEV is firm leverage, measured by the ratio of total debt over total assets. AGE is firm age, the natural log of the number of year since a firm registered as a corporation. BM is the book to market ratio. PROF is firm profitability, and equals operating income over sales. NDIV is the fraction of diversified firms in the industry. GDP is GDP growth rate. p-value in parentheses. *, ** and *** represent significance at 10%, 5% and 1% respectively.*

In columns (1) and (2) of the
Table , the marginal effect estimates of state ownership are positive and significant. The result therefore supports the hypothesis one (H1) which indicates that firms with high state ownership are likely to diversify their businesses. This result may imply that representatives for the state in firms allow the firms pursue corporate diversification strategy in order to guarantee their jobs or self-benefits.

The foreign ownership variable indicates a negative and significant result. This means that the hypothesis two (H2) is confirmed. Foreign ownership in Vietnamese listed firms discourages corporate diversification decisions of firms. This may imply that foreign investors try to protect themselves from expropriation conducted by manager or insiders.

Firm size variable indicates a positive and significant impact on corporate diversification. This result is consistent with Singh, Mathur and Gleason (2004) and Campa and Kedia (2002), which implies that large firms are likely to diversify their businesses. Leverage variable is negative and significant, which is consistent with Chen, R, Dyball and Wright (2009). Firm age variable shows a positive and significant result, indicating that old firms tend to diversify because they have less growth opportunities. This result is in accordance with previous studies (Denis, Denis & Sarin 1997; Lien & Li 2013; Lin & Su 2008). Book to market ratio indicates a positive and significant impact on corporate diversification (except for model (2) and (4)). This result implies that firms with low growth opportunities tend to expand through diversification (Singh, Mathur & Gleason 2004). Profitability variable shows a negative sign and is insignificant (except in model (1)). This result is consistent with Campa and Kedia (2002) which shows that profitability does not strongly affect a firm's corporate diversification decision. Industry characteristic variable (fraction of number of diversified firms in industry) is positive and significant. This implies that industry characteristic affects likelihood of taking corporate diversification strategy and indicates that firms which operate in industry which is dominated by diversified firms are likely to engage corporate diversification strategy (Campa & Kedia 2002). Macroeconomic variable (GDP growth rate) is positive and significant, showing that economy with high growth rate motivates firms to take corporate diversification strategy.

7. CONCLUSION

This paper investigates the impact of ownership structure (state ownership and foreign ownership) on corporate diversification decisions of listed firms in Vietnam over the period 2007 to 2012. The empirical results indicate that while state ownership encourages corporate diversification, foreign ownership dampens this strategy. In other words, these results are consistent with the proposed hypothesises.

In details, the findings of the model support the hypothesis 1, that state ownership encourages corporate diversification decision of firms. State ownership motivates corporate diversification strategy because it has different goals than other shareholders such as political or social goals rather than value maximization (Wan et al. 2011). When state ownership increases, the state becomes controlling shareholder and has incentive to expropriate other shareholders through corporate diversification (Tsai, Young & Hsu 2011). When the state is controlling shareholder, they appoint firm's managers who are likely to conduct diversification strategy to increase their power, warrant their jobs, or benefit themselves (Volkov & Smith 2014). State ownership is likely to encourage corporate diversification, expropriate minority shareholders, which leads to firm value erosion.

Foreign investors, acting as monitors, discourage corporate diversification strategy of firms. This outcome confirms the hypothesis 2. In emerging markets, minority shareholder protection mechanism is weak (Gibson 2003). In these markets, foreign investors are often considered as outside shareholders. They fear that managers or controlling shareholders can expropriate their wealth in firms through corporate diversification. Therefore, foreign ownership does not motivate corporate diversification strategy. Foreign investors can restrain firms' managers from conducting corporate diversification by reducing managers' bonuses (Yoshikawa, Rasheed & Del Brio 2010). Foreign ownership activates monitoring role in firms and thus improve firm performance. Foreign ownership monitors firms' managers or controlling shareholders, which dampens likelihood of taking corporate diversification strategy, and thus may improve firm performance. Foreign investors in Vietnam is often considered as important shareholders who provide large capital for firms' development and transfer managerial knowledge, that may dampen corporate diversification strategy of firms.

This study provides an empirical evidence on the impact of state ownership and foreign ownership on corporate diversification decision in firms. While literature reveals negative effect of corporate diversification on firm value (Bae, Kwon & Lee 2011; Berger & Ofek 1995; Boubaker, Mensi & Nguyen 2008; Chen, S-S & Ho 2000; Claessens et al. 1999; George & Kabir 2012; Lang & Stulz 1994), this study may practically contribute to policy makers and investors. The result may help policy makers in proposing policies which encourage or discourage corporate diversification strategy of firms in accordance with diferrent ownership structure. The research also implies that investors, especially individual investors, should be aware of ownership structure when investing in diversified firms.

This research, however, has some limitations. While the study only examine effect of foreign ownership on corporate diversification decision, future research should further investigate effect of foreign institutional ownership and/or effect of foreign individual ownership on corporate diversification decision of firms. Because corporate diversification decision may be dynamic, future research may use a dynamic model specification such as system GMM to explore the impact of ownership structure on firm's corporate diversification.

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E-BANKING AND CONSUMER BEHAVIOR: THE ROLE OF SWITCHING COSTS

Wachyudhi.N.*, Budi Haryanto, MM**

* Fakultas Ekonomi Universitas Krisnadwipayana, Jakarta
** Fakultas Ekonomi Universitas Sebelas Maret. Solo

Abstract

The objective of this study was to examine the behavior of consumer continuing intention to use e-banking. In the model, the consumer's continuance intention was designed as target variable which affected by perceived relationship marketing and electronic service quality (e-serqual) as well as mediated by the attitude of consumer satisfaction and trust, and moderated by the magnitude of perceived switching costs. Data were gathered from 200 e-banking users, by using the convenience sampling method, and the participants as the subject for this study were Business Administration Students of Krisnadwipayana University, Jakarta – Indonesia. The result indicated that the correlation between relationship marketing and electronic service quality was to be reciprocal, and mutually positive and significant. In addition, perceived e-serqual had only positive effects on customer statisfaction and customer trust. But both of the observed key variables (relationship marketing and electronic service quality) showed no direct or indirect effects on consumer intention to continue using e-banking either through mediation of customer satisfaction and customer trust. However, after being given the moderating effect by low and high level of switching costs, it turned out that switching costs quite moderate significantly consumer intentions to continue using e-banking. Thus in this study, the findings of unsignificant effects were also discussed in order to provide theoretically and practically implication.

Keywords: Relationship Marketing, Electronic Service Quality (E-Serqual), And Consumer Continuance Intention To Use E-Banking

1. INTRODUCTION

The issue of consumer intentions to con-tinue using e-banking is still relatively interest-ing to be studied. This phenomenon occurs beca-use of the divergency of the models in several previous studies (see Table 1 appendix), and these models just could be applied in the limited context, and only for the observed objects as well as certain research settings, so that the models can not be used to describe the pheno-menon in all situations (Haryanto, 2008). Thus, this limitation provides an opportunity for this study to construct an alternative model which is capable of explaining the phenomenon under study. However before describing the model in question, firstly addressed is the factors that cause divergence model.

The first factor that causes the diver-gence of the models is estimated that some pre-vious studies focused on the problem of different research objects. Some of them have an empha-sis on research object called online banking (see Chea & Margaret, 2005; Yoon, 2007; Qureshi et al, 2009, Li, 2010 and Li, Xiaolin. Et al, 2011), while others rely on online shopping, internet banking, mobile internet services, self-service technologies and bloggers (see Khalifa & Vanessa, 2007; Tat et al, 2008; Chen & Huei, 2009; Deng et al., 2010; Shiau, et al., 2011 and Lee, et al, 2011). This in turn has an impact on the diversity of observed variables selection and statistical methods used to solve the problem.

Instead of the problems that arise in the observed variables and statistical methods applied in the studies of online banking, in some other studies of e-banking have also contributed the divergence of the model (see Khalifa & Vanessa, 2007; Tat et al, 2008; Chen & Huei, 2009). The emergence of these problems are also expected from studies using different theoretical approaches. Several studies of online shopping (see Khalifa & Vanessa, 2007) approached through theoretical analysis of IS continuance theory combined with TAM theory and the theory of disconfirmation, while Lee. et al. (2011) using the approach draw upon extended TAM Model. While some studies of e-banking (see Tat et al, 2008; Chen & Huei, 2009; Deng et al, 2010) more rely on integrated theory between the theory of trust, TAM. TPB, and cognitive ab-sorption, to extend the theory of TAM tradi-tional approaches in the study of contemporary information technology. As a result, the impact of different approaches to this theory lead to a diversity of election of observed variables and applied statistical tools. Therefore, its results indicate the power of its applications are limited and only applied to the object being observed.

The second factor which led to the diver-gence of the model is expected due to differences in the research setting. This difference arises because each study (see Chea & Margaret, 2005; Yoon, 2007; Hema & Abdullah, 2011; Lee, et al, 2011) rests on the location that has the back-ground and attitudes

of different consumer motivations in using electronic banking. This is
presumably related to social norms, which are based on the social cognitive theory that stated there is a mutual influence between cognitive factors, environment, and behavior of the local community. For the developed countries, among others, the United States, Europe and Australia, the motivation to use electronic banking is expected to rely more on the aspects of the utility function (see Chea & Margaret, 2005; Marcel et al., 2006; Yoon, 2007; Albesa 2007; Laukkanen. et al. 2007). This is different to the developing countries (such as Indonesia and some other countries in Asia and Africa) that the underlying factors in chosing the information technology of banking transactions are likely motivated by emotional factors (trust, equity, benevolence and commitment), ethical and relational ties or hedonistic lifestyle (see; Ndubisi, 2003; El-Kashier et al, 2009; Esmaili, et al., 2011; Hema & Abdullah, 2011, and Lee, et al, 2011). Thus, the impact of the diversity of the objects and settings led the results to be bias, and can not be used to gene-ralize the problem in all situations. Therefore, in looking at the customer continuance inten-tion to use e-banking, this study proposes a mo-del construction as described below.

In this study, the model is built on six observed variables, namely: (1) relationship marketing (2) electronic service quality, (3) customer satisfaction, (4) customer trust, (5) switching costs, and (6) customer continuance intention to use e-banking. The configuration of this model is partially adapted from several previous studies, in which according to the results of the study note that the effect of customer satisfaction on customer loyalty was moderated by switching costs (Wong & Joseph, 2000; Lam, et al ., 2004; Yang & Robin, 2004; Zineldin, 2006; Casalo. et al. 2008). In addition, Too (2001) also showed that the variable of relationship marketing has a positive effect on trust, while Thurau, (2002) looked at the correlation between relationship marketing and service quality were reciprocal. Further-more, Haryanto & Muklas, (2010) and Alru-baiee, & Nahla (2010), also indicated the posi-tive effect of relationship marketing on custom-er loyalty. While in terms of customer loyalty, Kheng et al, (2010) stated that service quality had a direct effect on customer satisfaction, and Li, (2010) and Luo & Tzai, (2011) also suggested that service quality has a positive influence on customer continuance intention, after being mediated by customer satisfaction and customer trust.

Thus, this model reveals four pattern of correlation to address the problems studied. First, the reciprocal correlation between relati-onship marketing and service quality. Second, the pattern of direct effect between relationship marketing and service quality on customer continuance intention to use e-banking. Third, the effect of relationship marketing and service quality on customer continuance intention which are mediated by customer satisfaction and customer trust. Fourth, the moderating role of switching costs in the effects of relationship marketing and electronic service quality on customer loyalty that are mediated by customer satisfaction and trust.

2. LITERATURE REVIEW & HYPOTHESIS DEVELOPMENTS.

2.1.The Effect of Relationship Marketing and Service Qu-ality on Customer continuance Intention

As mentioned earlier, Thurau (2002) showed that the correlation between relation-ship marketing and service quality is to be re-ciprocal. In this context, Haryanto & Muklas, (2010) revealed that in implementing relational marketing, the companies should change their perspective on the consumers through recog-nition that the relationship marketing and cus-tomer service quality needs to be undertaken si-multaneously. The aim is to ensure a synergistic combination between the two variables. Fur-thermore, Li, (2010) and Taleghani et al, (2011) stated that these variables play an important role in explaining the process of forming a con-tinuation intentions of customers to use e-bank-ing. Therefore, consistent with the statement of Thurau (2002); Haryanto & Muklas, (2010), Li, (2010) and Taleghani et al, (2011), the study hypothesize that;

H1: The reciprocal correlation between relation-ship marketing and electronic service quality has a positive effects on consumer intentions to continue using e-banking.

2.2. The Effect of Relationship Marketing and Service Qu-ality on Customer Continuane Intention which me-diated by Customer satisfaction and Customer Trust

Morgan & Hunt (1994) stated that when a person is involved in an exchange that has a value of reliability and integrity, then there will be a feeling called trust. This state-ment implies that in implementing relationship marketing, the fulfillment of promises to con-sumers is an essential element that must be considered in order to create customer satis-faction and build customer trust. By this way, Floch & Treblmaier (2006) who investigate the effect of website service quality, trust and over-all satisfaction from the perspective of e-bank-ing customers, found that customer loyalty is directly effected by customer satisfaction and customer trust. In this context, perceived ser-vice quality is measured by the quality of the perceived cognitive transaction, while the overall level of satisfaction is measured based on the accumulation of consumer experiences on their affective component. While other studies that discuss customer trust explained that the higher the intensity of the company pursuing a strategy of relational marketing, the higher level of customer satisfaction and trust towards the company (Haryanto & Muklas, 2010), and in turn have a positive effect on consumer intention to remain loyal. Therefore, if the reciprocal correlation between relation-ship marketing and perceived service quality mediated by the direct effects of customer satisfaction and customer trust on customer intentions to continue using e-banking, the study hypothesize that;

H2: Customer satisfaction and customer trust mediate the effect of relationship market-ing and electronic service quality on custo-mer intention to continue using e-banking.

2.3. The Moderating Role of Switching Costs in The For-mation Process of Customer Intention To Continue Using E-Banking

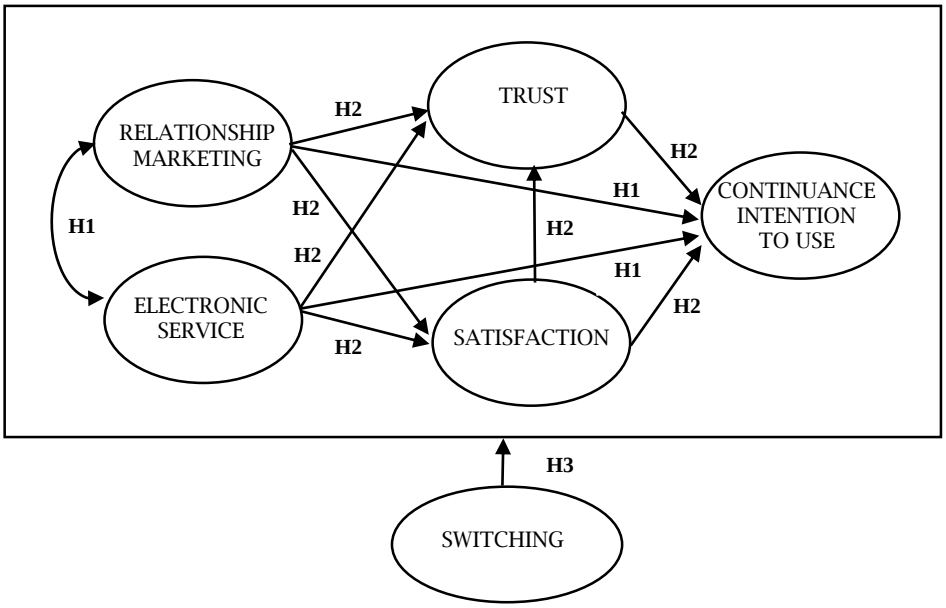
In general, the notion of switching costs are the costs that can deter consumers to move from one service to another service provided by competitors (Chea & Margaret, 2005; Li, Dahui. et al., 2007). If this phenomenon is associated with the the study of Yang & Robin (2004) which based on the model of decomposed theory of planned behavior, it is identified that switching costs may moderate the effect of trust on customer loyalty. The values of the perceived benefits is significant enough, only when the level of customer satisfaction or customer perceived value is above the average level of switching costs. Therefore, in order to explore the correlation among the whole constructs, this study hypothesized that;

H3: Switching costs moderate the effect of relationship marketing and electronic service quality on customer continuance intention to use, which is mediated by customer sa-tisfaction and trust.

3. RESEARCH MODEL

A developed model on this research is designed to investigate how switching costs moderate the effects of relationship marketing and electronic service quality which mediated by satisfaction and trust on the formation of costomer continuing intention to use e-banking. The model constructs and their relationships are illustrated in Figure 1.

Figure 1. The Effect of Relationship Marketing, Electronic Service Quality, Satisfaction and Trust on Customer Continuance Intention To Use E-Banking, which moderated by Switching Costs



4. RESEARCH METHODS

Population of this study were students of business management studies at the University of Krisnadwipayana: Jakarta, who had inten-tion to continue using e-banking. Total samples was 200 respondents who had previously sub-scribed electronic banking services from several banks. The consideration of deciding such num-bers because in terms of the sample adequacy for Maximum Likelihood Estimation (MLE) in the structural equation model (SEM), is ranging from 100 to 200 samples (Ghozali, 2008). The participation was entirely voluntary, and convenience sampling technique was carried out based on respondents' intention to continue using e-banking. The justification of selecting students as research sample because this has been done by various academic research, including practical interest in marketing (see Alsajjan, 2009; Susskind & stefanone, 2010, and Zhao et al, 2010).

To test the validity and reliability of the data performed confirmatory factor analysis using Structural Equation Modeling (SEM). Similarly, based on the same method were tested the normality, outliers, goodness of fit, and the causality relationship on the hypothesis. Here are the explanation of study findings obtained.

5. RESULTS

A results description of the of data ana-lysis begins with a brief background on the profile of respondents as a factor underlying the testing done. Table 2 indicates that the number of women respondents dominate the study (mean = 1.48), with an average life span of adults aged under 34 years (mean = 1.46). In addition, the average income earned per-month likely range of less than IDR 5 million (mean = 1.55): and the majority worked as private employees (mean = 2.27): and their highest educational background were under-graduate of S1 (mean = 2.04).

Table 2. Descriptive Statistics of Respondents Profile

N		*Mean*	*Standard Deviation*	*Min*	*Max*	*Description*
Gender	200	1.48	.501	1	2	1 = Male
						2 = Female
Age	200	1.46	.583	1	3	1 = 20 - 34
						2 = 35 - 50
						3 = > 50
Income per-month	200	1.55	.663	1	3	1 = < IDR 5 Million
						2 = IDR 5 - 10 Million
						3 = > IDR 10 Million
Occupation	200	2.27	.964	1	4	1 = Civil Servants
						2 = Private Company Employee
						3 = Entrepreneurial
						4 = Others (TNI, Lectures & Students)
Education	200	2.04	.861	1	4	1 = High School
						2 = Bachelor (S1)
						3 = Master's Degree (S2)
						4 = Others (Diploma)

Source: Primary Data (Processed, 2012).

Furthermore, Table 3 (appendix) showed all of the alpha values were greater than the limit of constructs reliability, that is 0.70. Thus the questionnaires was considered reliable for measuring each variable used (see Table 3-A through Table 3-D appendix). In addition, Table 4-A through Table 4-I (see appendix) also demonstrated convergent validity values for all variable indicators. The estimated values seemed greater than two times the standard of the error (SE) at $p < 0.05$. Therefore it can be concluded that the variables used were valid.

Correspondingly, the following descript- ion also present a set of test results which

performed by using Structural Equation Modeling (SEM). On the normality test, Table 5 (see appendix) showed the results of uni-variate for skewness (cr) more than 2.58, consisting of items: ci3; ci1; cs3; cs4; CT1; CT2; efficien; fulfill; avail, and security, while the kurtosis (cr) for all constructs were under 7. This condition implied the univariate data distribution was normal, and can be used to estimate the subsequent analysis. While the results of the multivariate test indicated the acquisition rate was 10.426, which implies that the distribution of the data can be said to be moderately non-normal.

Despite the analysis of abnormal data can mislead the interpretation due to the chi-square value obtained is likely to increase, and the probability level will shrink, but since technical analysis of SEM used in this study was based on Maximum Likelihood approach Estimates (MLE), consequently the result had no effect (robust) on the deviation of multi-variate normality (Ghozali, 2007). In addition, the justification for such data distribution was also due to the primary data gathered from the respondents' answers varied, and making it difficult to obtain data that follow a normal distribution (Haryanto & Kawuri, 2009).

In addition, Table 6 (see appendix) indi-cated 14 items that had outlier values, with probability levels of < 0.05. However, if it were associated with the conditions stating that a number of observations will experience outlier if one of the items had only one number of probability less than 0.05 (whereas the other was > 0.05), then the result of univariate test was still in the acceptable condition.

Correspondingly, the results of multi- variate test (df = 18, p = 0.001, and $\chi 2 = 42.31$) showed that the greatest value of Mahalanobis d-squared was 45.877. Thus the detected outlier values was only 1 unit. But this ought not to be discarded, because the goodness of fit would likely declining. In other words it was regarded as the right choice that the number used remains 200 samples.

On the other side, the appendix Table 7 described the summary of results to measure the

goodness of fit model before given the mode-rating effects. It yielded that six of the seven minimum requirements met the cut-off value recommended. Similarly for the fit assessment of the model after being given the moderating effect. The result showed that five of the seven minimum requirements was enough to meet the cut-off value recommended, while the rest of Goodness of Fit Index and Adjusted Goodness of Fit Index classified as marginal (see Table 8 appendix). Thus, by measuring the overall goodness of fit indicated that both models of before and after being given moderating effects were in the acceptable condition.

Finally, Table 9 (see appendix) presents the summary of the results to measure a cons-trained model fit. It yielded that five of the seven of the minimum requirements met the cut-off value recommended. Therefore, based on an overall assessment of the measurement of good-ness of fit for the constrained models revealed acceptable. In addition, the appendix of Table 10 describes a comparison of the goodness of fit for the two analyzed model indicate that the value of $\Delta \chi^2$ was 21.423 and df ($p < 0.05$). Thus, based on the description of Table 7 through Table 10 (see appendix) could be concluded that the cons-tructed model had a goodness of fit. The follow-ing description would present the results of hy-pothesis testing as indicated by the regression weights and goodness of fit indices for both of the test results before and after being moderated by switching costs (see Table 11 &12).

Table 11. The Results of Hypothesis Testing (Standard Regression Weight before being given a Moderating Effects)

Variabel			Estimate	S.E.	CR
Relationship Marketing	⟷	Electronic SERVQUAL	.137	.027	5.066
Satisfaction	⟵	Electronic SERVQUAL	1.270	.154	8.244
Trust	⟵	Electronic SERVQUAL	1.056	.348	3.032
Chi Square		=	124,817		
Probabilitas Chi Square (p)		=	0,071		
CMIN/DF		=	1,212		
Comparative Fit Index (CFI)		=	0,992		
Tucker-Lewis Index (TLI)		=	0,988		
Goodness of Fit Index (GFI)		=	0,937		
Root Mean Square Error Approximation (RMSEA)		=	0,033		

Source: Primary Data (Processed, 2012).

Tabel 12. The Results of Hypothesis Testing (Standard Regression Weight After being given a Moderating Effects)

Variabel			*Low Swtching Costs*			*High Swtching Costs*		
			Estimate	*S.E.*	*CR*	*Estimate*	*S.E.*	*CR*
Relationship Marketing	⟷	Electronic SERVQUAL	.079	.039	2.016	.152	.035	4.320
Satisfaction	⟵	Relationship Marketing	.050	.068	.728	-.151	.161	-.941
Satisfaction	⟵	Electronic SERVQUAL	1.168	.205	5.703	1.404	.308	4.558
Trust	⟵	Relationship Marketing	.003	.135	.024	-.274	.159	-1.720
Trust	⟵	Electronic SERVQUAL	2.617	1.833	1.427	1.095	.496	2.206
Trust	⟵	Satisfaction	-1.033	1.459	-.708	.321	.237	1.357
Continuance Intention To Use	⟵	Relationship Marketing	-.087	.123	-.707	.545	1.330	.410
Continuance Intention To Use	⟵	Electronic SERVQUAL	-.927	2.284	-.406	-2.245	5.149	-.436
Continuance Intention To Use	⟵	Satisfaction	1.201	1.405	.854	-.319	1.165	-.274
Continuance Intention To Use	⟵	Trust	.515	.464	1.110	2.595	4.114	.631
Chi Square			=	215.170		=	369.060	
Probabilitas Chi Square (p)			=	0.070		=	0.000	
CMIN/DF			=	1.157		=	1.367	
Comparative Fit Index (CFI)			=	0.989		=	0.955	
Tucker-Lewis Index (TLI)			=	0.062		=	0.959	
Goodness of Fit Index (GFI)			=	0.896		=	0.840	
Root Mean Square Error Approximation (RMSEA)			=	0.028		=	0.043	

Source: Primary Data (Processed, 2012).

6. DISCUSSION

Hypothesis test of this research was based on the criterion of cr (z-score) greater than or equal to the value of the z-table (z-score ≥ z-table). Then the results were associated with the coefficients of the standardized structural path, especially related to the suitability of the direction of the correlation between the path that has been previously hypothesized. If the direction of correlation in accordance with the hypothetical direction and critical ratio, then it can be said that the hypothesis being tested quite supporting the evidence. To that end, the value of the z-table at each significance level used is: 1% = 2.56, 5% = 1.96 and 10% = 1.64.

6.1 The reciprocal effect of relationship marketing and electronic service quality on the customer continuance intention to use e-banking

The results indicated that the influence of relationship marketing and electronic service quality on the customer continuance intention to use e-banking was reciprocal, and having posi- tive effect on significant level of 0.01 and 0.05. It can be seen from the regression weights of before and after being given moderating effect by the switching costs. Before moderated, the SE was 0.027 and CR = 5.066, while after being given the moderating effect by low switching costs the value to SE = 0.039 & CR = 0039, and high switching costs yielding SE = 0.035; CR = 4320 (see Table 11 and Table 12 above).

This condition implies that the relation-ship marketing and electronic service quality provided by the bank as the service providers in establishing, protecting and maintaining good relationships with e-banking customers had a positive effect and relating to each other reciprocally (SE = 0:27; CR = 5.066). This findings supported previous research which states that relationship marketing and service quality was reciprocal (see Thurau, 2002). But both of these key variables (relationship mar-keting and electronic service quality) have no effect on the customer loyalty to the bank who provides e-banking services they consumed. Nevertheless this finding still requires further tests on different contexts, in order to increase the external generalization of the hypothetical concept.

6.2. The effect of relationship marketing and electro-nic service quality on the customer continuance intention to use e-banking which is mediated by customer satisfaction and trust

In the analysis context between variables of relationship marketing and electronic service quality on the formation of consumer intentions to continue using e-banking, the results indica-ted that the first hypothesis (H1) was not sup-ported by empirical evidence (see Table 11 and Table 12). There is no indication the consumers want to continue using e-banking either influen-ced by the activities of banks in implementing electronic relationship marketing nor by service quality. Similarly with the effect of customer satisfaction and trust on the continuance inten-tion to use e-banking, although electronic service quality had a positive and significant effect on the consumer satisfaction and trust, but it seemed that this variables of satisfaction and trust did not function as partial or full mediator. Therefore the second hypothesis also did not support any mediating effects in the relation between relationship marketing and electronic service quality on customer intention to continue using e-banking. In other words, these findings did not support the regularity of the phenomena which states that the higher the effort relationship marketing and service qua-lity, the higher the intention of consumers to re-main loyal (see Zeithaml, et al. 2002; Ramkumar & Saravanan, 2007; Li, 2010; Taleghani et al, 2011): whether it is mediated by the variables of satisfacion and or customer trust.

Such conditions presumably relates to aspects of the external factors that influence customer intention to continue using e-banking, and it is not included in the model of this study. Those external factors include, among others; the absence of differences in switching costs, and the intensity of transaction factor (see: the appendix Table 15) and the characteristics of consumer behavior, that is expected to play a role as the control variables, which causes consumers did not intend to remain loyal to the bank providing e-banking services they used.

However, if the correlation among those variables should be analyzed in the full model

(read: the formation of consumer intentions to continue using e-banking) which is moderated by the effects of consumer perceptions about switching costs (see: the appendix Figure 2,3 & 4), then there should be a difference between the model before it is moderated by low switch-ing costs and by high switching costs. In other words, it can be concluded that the levels of consumer switching costs moderate the cus-tomer intention to continue using e-banking.

6.3. The moderating effect of switching costs on the formation process of customer continuance in-tention to use e-banking

The formation process of customer continuance intention to use e-banking which is moderated by the switching costs consist of 3 lanes, namely: (1) the path between relation-ship marketing and electronic service quality, (2) the path among relationship marketing and service quality with customer satisfaction and customer trust, (3) the path between electronic relationship marketing and service quality with customer satisfaction and customer trust towards customer continuance intention to use e-banking. The study indicated that the model, before being given moderating effects, had three positive correlations: (1) a reciprocal correlation between relationship marketing with electronic service quality, (2) the effect of electronic service quality on customer satis-faction, and (3) the effect of eletronic service quality on customer trust (see Table 10). Eventually it changed after being moderated by the magnitude of switching costs (see Table 11). Thus, it can be concluded that the level of switching costs moderate the formation pro-cess of customer continuance intention to use e-banking. Nevertheless this finding still requi-res further tests on different contexts, in order to increase the external generalization of the hypothetical concept.

7. CONCLUSION AND IMPLICATIONS

7.1.Conclusion

The study had only found several of po-sitive effects on the formation process of cus-tomer continuance intention to use e-banking. It was the reciprocal correlation between relationship marketing and service quality, and the effect of service quality on customer satisfac-tion and customer trust. Correspondingly, the result also indicated that the main of two observed variables (relationship marketing and electronic service quality), had no positive effect of on consumer intention to continue using e-banking. It means that there is no indication the consumers wanted to continue using e-banking directly influenced by the activities of banks in implementing electronic relationship marketing nor by the given service quality.

Similarly with the role of customer satisfaction and customer trust in mediating the effect of relationship marketing and electronic service quality on consumer continuance inten-tion, although electronic service quality had a positive and significant effect on the consumer satisfaction and trust, but it seemed that the variables of satisfaction and trust did not function as a partial or full mediating effect. Therefore the study did not support the first nor the second hypothesis, but on the other hand it was supporting the third hypothesis that the magnitude of switching costs had a moderating effect on the consumer continuance intention. This condition was reflected by the prior model that changed after being given a moderating effect on unconstrained and constrained model.

Such conditions presumably relates to aspects of the external factors that influence customer intention to continue using e-banking, and it was not included in the model of this study. Those external factors include, among others; the absence of differences in switching costs, and the intensity of transaction factor and the characteristics of consumer behavior that was expected to play a role as a control varia-ble, which causes consumers do not intend to remain loyal to the bank providing e-banking services they used. Thus, these findings had

implications as described in the following paragraphs.

7.2. Implications for Further Study

Theoretically, the results of this study is expected to be a reference in explaining customer continuance intention to use e-banking. Because the testing procedures and used methods are rigid. While the examined variables have a uniqueness and different from previous studies. Therefore the results can be used as a main stream, especially for studies in the field of behavioral consumer.

Furthermore, in the context of practical implications, the study suggested the marketing stimuli need to be created to rebuild the relationship marketing efforts and electronic service quality, in order to increase positive attitudes of customer intention to continue using e-banking. In addition to the stimulus, marketers are also advised to consider external factors which capable of mediating the effect of relationship marketing and service quality on consumer electronic continuance intention to use e-banking. The allegations of neglect external factors that are not included in this study, as well as the factor of research object selection that are limited to college students is expected to have an impact on the limitations to apply the context of model on different settings. That is why this limitation needs further studies to look at a wider scope, so that the generalizations can be better improved.

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THE INFLUENCE OF SIZE, LOCATION AND FUNCTIONS OF FREIGHT RAIL TERMINALS ON URBAN FORM AND LAND USE

WJ (Wessel) Pienaar *

* Stellenbosch University, Department of Industrial Engineering, Private Bag X1, Matieland, 7602, South Africa

Abstract

This article outlines how the size, location and scope of activities of freight rail terminals influence urban form and land use. The nature of freight rail stations is outlined, and the classes of trains that make use of these facilities are described. According to size, railway freight stations can be divided into four groups: (1) railway halts; (2) small-sized goods stations; (3) medium-sized goods stations; and (4) large-sized goods stations. The factors that determine the location of stations are discussed. Rail freight stations can be divided functionally into four broad classes: (1) break-bulk rail terminals; (2) bulk rail terminals; (3) roll-on/roll-off rail terminals; and (4) intermodal terminals. The functions of the four rail terminal classes are described. The paper discusses how rail freight terminals can influence urban form and land use. Finally the conclusions of the study are presented.

Keywords: Break-Bulk Rail Terminals, Bulk Rail Terminals, Intermodal Terminals, Land Use, Location Of Stations, Roll-On/Roll-Off Rail Terminals

1. INTRODUCTION

1.1 Research need

The incompatible service and operational characteristics of passenger and freight rail systems result in the spatial separation of rail passenger and rail freight terminals. Although they may share access to the same rail network, they service completely different market segments. Nowadays, after the economic deregulation of freight transport, any proximity between the location of passenger and freight terminals tends to be coincidental. This phenomenon has a profound and costly impact on the land-use patterns in urban conurbations. The aim of this paper is to shed light on this trend.

1.2 Research method

The investigation was performed through a literature search, complemented with detailed field visits to cities in the world where such land-use changes and developments have occurred, and through interviews with representatives of major rail operators. Major rail operations and rail operators in the following cities were visited: Atlanta, Baltimore, Boston, Chicago, New York, San Francisco and Seattle in the USA; Bremen, Hamburg, London and Rotterdam in Europe; Brisbane and Sydney in Australia; Cape Town and Durban in South Africa; and Hong Kong and Singapore in Asia.

1.3 Definition of the concept of a railway station and classification of freight trains[1]

In rail transport, the functions of a terminal are fulfilled by a **railway station,** often also called a train station. 'Terminal' here means a facility where trains can stop so that passengers may board or alight, and/or freight may be loaded or unloaded, rather than referring the end of the railway line itself. RailNetEurope[2] defines a railway station as "a railway establishment which is either open or not to the public, generally staffed and which is designed for one or more of the following operations:

- formation, dispatch, reception and temporary stabling of trains
- stabling and marshalling of rolling stock
- boarding and alighting of passengers
- generally, where open to public, providing facilities for the purchase of tickets
- loading and unloading of goods".

Freight trains can be broadly divided into two classes: unit trains and wagon-load trains.[3] With a **unit train,** all wagons are connected in a fixed set, carry the same commodity and operate between the same origin and the same destination terminal without being split up. They are sorted in a marshalling yard, but may stop in a freight yard, usually in a unit train siding, for inspection, locomotive servicing and/or crew changes. Unit trains are economical only for high-volume customers. Since unit trains carry only one commodity, wagons are of all the same type and are often identical, except for possible variations in livery. When classified by freight or payload type, there are three types of unit trains: (1) bulk-commodity unit trains; (2) standard intermodal container unit trains; and (3) motorcar carrier unit trains (so-called roll-on/roll-off trains).

Non-unit trains may be referred to as **wagon-load trains**, and are formed from single wagon consignments of freight. These trains usually consist of individual wagons loaded with break-bulk freight at separate locations, transferred to marshalling

yards where the wagons are formed into trains sorted by destination, then transported to a destination marshalling yard, where individual wagons are separated and assembled into trains per destination.

2. SIZE OF FREIGHT RAIL TERMINALS

According to size, railway freight/goods stations can be divided into four groups: (1) railway halts; (2) small-sized goods stations; (3) medium-sized goods stations; and (4) large-sized goods stations.[4] These are discussed in turn below.

Railway halts are the smallest stations and are usually unstaffed, or have very few staff and few or no facilities. Trains stop only on request when passengers indicate that they wish to board, or passengers on the train inform the crew that they wish to alight; trains will also stop when a single item (or a few items) that can be handled manually has to be loaded or unloaded, e.g. mailbags, parcels and portable containers (the proverbial "milk can").

Small-sized goods stations are usually located on branch lines. Whenever a section of a small passenger station is used for the loading and unloading of goods, this section is usually referred to as the "loading area" or "loading dock", and has its own access and signposting. Often there are no facilities for loading and unloading, and the consignor/consignee has to organise his own handling staff and equipment.

Medium-sized goods stations usually have a marshalling yard and shunting sidings to enable trains to be divided amongst the various local loading and sorting sidings, private sidings and the running line, at the same time performing the function of a small railway hub.

Large-sized goods stations usually include the following yard components connected to them: (1) a reception yard (arrival yard); (2) a transfer and shunting yard; (3) a repair or maintenance yard; (4) a locomotive depot; (5) a marshalling yard and in some cases also a unit train siding; and (6) a departure yard.[5]

- A **reception yard** is a yard where locomotives are detached from the wagons of an arrived train and the wagons are inspected for mechanical problems. Minor repairs, for example the replacing of brake blocks, are performed here, while wagons that may not go further are taken to the repair yard. After the inspection of the wagons has been completed and the protection removed, they must be shunted to the marshalling yard as soon as possible so as not to delay incoming trains.
- A **transfer and shunting yard** is where (a) sets of wagons are dropped off or picked up by a through train, usually situated at a junction station containing two or more loops alongside the running line; and (b) wagons are moved around for whatever reason (only one loop alongside a running line is regarded as merely a passing loop).
- A **repair** or **maintenance yard** is where wagon maintenance and repairs are undertaken.
- A **locomotive depot** is where locomotives are stabled, fuelled and serviced.
- A **marshalling yard** is equipped with multiple tracks with special layout and technical facilities, where splitting up of trains, sorting of wagons for different destinations and formation of complete trains take place. Marshalling yard layout is universally designed according to one of three methods of shunting, which will dictate whether marshalling will be performed in (1) a hump yard; (2) a gravity yard; or (3) a flat yard.

  – A **hump yard** has a constructed hill over which wagons are shoved by shunting locomotives, and then gravity is used to propel the cars to various sorting tracks.

  – A **gravity yard** is built on a natural slope and relies less on locomotives; generally, locomotives will control rolling stock being sorted from uphill of the wagons about to be sorted. They are decoupled and allowed to accelerate into the classification equipment lower down.

  – A **flat yard** is constructed on flat or almost level ground and has no hump. In this type of yard, locomotives are relied on for all wagon-shunting movements from: (a) train arrival tracks; (b) to a trainset breakdown track; (c) to a trainset assembly track; and then (d) to the departure tracks of the yard.
- A **unit train siding** is to be distinguished from a marshalling yard siding as it is available for unit trains when the existing transfer and shunting yard lines are too short or are occupied by other wagons. Unit trains carry complete and fixed trainsets all of the same wagons and payload types between the same origin and destination. Between these two trip ends unit trains are part of through traffic and are not sorted in a marshalling yard, but may stop in a freight yard on a unit train siding for other purposes: inspection, locomotive servicing and/or crew changes.
- **A departure yard** is the yard to which train loads that have already been formed in a marshalling yard are transferred. Here inspection takes place to ensure that loads are properly secured and that no noticeable wagon defects occur.

In the context of this paper, it is medium- and large-sized goods stations that have an impact on land-use patterns.

3. LOCATION OF STATIONS

Before the rise of road transport, economic activities tended to cluster around rail terminals – notably business districts in cities developed around rail stations. However, as the road freight industry flourished and road infrastructure was expanded and improved, the supremacy of rail transport gradually waned and the need for many rail stations diminished, particularly in industrialised countries. Since the economic deregulation of freight transport, the socioeconomic service and common-carrier obligations of freight rail transport operators have given way to contract services, while passenger commuter transport has remained a government-controlled socioeconomic service. Consequently, functional differences affect the location of passenger and freight rail terminals. Passenger rail terminals tend to be located in urban areas where many passengers board and alight, and surrounding land-use patterns are person-friendly, while freight terminals have become increasingly separated from densely populated urban locations.[6]

Unlike passenger stations, rail freight stations do not have to be located within densely

populated areas, and because they require a large land area for marshalling yards and freight storage, they are more likely to be located in non-built-up areas. For example, when dealing with bulk commodities, rail freight terminals will locate close to the production source, where they serve as the departure terminal for the bulk raw material to be hauled to markets.

The conventional break-bulk rail freight terminals with their need for multiple sidings to permit the assembling of wagons to form trainsets and the manual loading and unloading of wagons, which often took days and tied up terminal rail capacity, have become almost obsolete. Rail transport can carry large and high-density commodities and bulk consignments over long distances at low cost. Rail transport is well suited, therefore, to carrying raw materials and semi-finished goods, such as mining and agricultural products. The introduction of containers has promoted the conveyance of high-value finished products.

Consequently, a feature of freight rail systems nowadays is the reduction of stations, depots, yards and halts. By concentrating the reception and delivery of freight at fewer but larger stations, rail transport operators can attain economies of distance through longer hauls and economies of density through greater utilisation of rolling stock and intensive use of large terminals.[7]

The number of private sidings has also dropped since the economic deregulation of land freight transport. Private sidings nowadays tend to branch into large yards that often provide access to bulk rail terminals, roll-on/roll-off terminals and intermodal container terminals. In a number of countries, seaport facilities do not belong to the same proprietor as the connected rail service provider, so that rail yards at such seaports may also be regarded as quasi-private sidings. Private sidings can therefore (a) remain a single line on private property where rail wagons are used for loading, unloading and storage of goods; or (b) act as the arrival and departure line for a rail yard on private property as described above, where unit trains may be loaded and unloaded.

In addition, long-distance road haulage is becoming increasingly expensive as a result of escalating road transport operating costs and rising road traffic congestion. Long-distance shippers increasingly realise the advantages of using rail transport to a non-urban location in the vicinity of their markets. At this location, wagon loads are dispersed into smaller shipments and then distributed by road vehicles over short distances to their final, mostly urban, destinations.

Goods stations may be located:

- next to a passenger station (usually a small- or medium-sized freight terminal either on the far side of the platforms as seen from the station building or immediately alongside it);
- separately from the associated passenger station on one of the railway lines leading from it (mostly a medium-sized freight rail terminal); or
- as an independent freight terminal facility not connected with any particular passenger station (mostly a large-sized freight rail terminal).

4. FUNCTIONS OF FREIGHT RAIL TERMINALS

Rail freight terminals can be divided functionally into four broad classes: (1) break-bulk rail terminals; (2) bulk rail terminals; (3) roll-on/roll-off rail terminals; and (4) intermodal terminals.[8]

4.1. Break-bulk rail terminals

These terminals are used by trains that carry freight items packed in non-standard containers. Because of the need to also store weather-sensitive freight that is not always packed in waterproof containment, break-bulk terminals are usually also partially equipped with under-roof storage facilities. Break-bulk terminals are usually integrated with a marshalling yard, the main function of which is the assembly and break down of wagon-load trains carrying different types of non-unitised freight. This is necessary because each rail wagon could be bound for a different destination.

The rising popularity of door-to-door road freight transport and of containerisation has lessened the need for break-bulk rail terminals. Break-bulk terminals can be located at any of the three locations mentioned above: (a) next to a passenger station; (b) separately from the associated passenger station on one of the sidings leading from it; or (c) as an independent freight terminal facility not connected with any particular passenger station. Wagon-load traffic can also originate on private sidings. Two examples of these are (a) groupage traffic, which are consignments assembled by freight forwarders but presented to the railway as single wagon load; and (b) traffic related to a specific activity such as a manufacturing plant or a warehouse handling break-bulk freight.

4.2. Bulk rail terminals

These rail terminals are located at primary production points (mainly mines, oil refineries and grain silos) and ports of import from where bulk commodities are carried to secondary manufacturing plants (i.e. factories and processing facilities), ports of export and tank farms at petroleum and chemical product distribution depots.

Bulk rail terminals are generally designed to be commodity-specific and to either receive loaded bulk commodity wagons (often in unit trains) or to dispatch empty bulk commodity wagons/unit trains. Three notable examples are: (1) ore departure terminals at mines designed and equipped to store and load open wagons; and bulk ore destination stations equipped to receive loaded open wagons, unload the wagons, stockpile their payloads and convey the stockpiled ore via belts to waiting ships or to beneficiation facilities; (2) oil refineries and chemical production plants designed and equipped to produce petroleum and chemical products and store the products in adjacent tank farms where rail tank wagons are loaded either pneumatically or by pouring through a top hatch; and (3) grain elevators used to store, mix and load grain into covered hopper or other suitable wagons.

Bulk rail terminals are designed and equipped to load and unload the payload of trains in a short

time with very little shunting (if any), which minimises the dwell and turnaround times of trains. The storing area at bulk rail terminals required for stockpiled payload commodities is often smaller than the area that would have been needed for a marshalling yard. Bulk rail facilities at the departure side are usually located on a private siding and at the destination side, either also at a facility on a private siding or at a seaport.

4.3. Roll-on/roll-off rail terminals

These terminals are used by unit trains transporting light road vehicles, mostly motorcars, where the vehicles are rolled (driven) into and out of motorcar transporters using a ramp. Roll-on/roll-off ramps at terminals are designed and equipped to load and unload the payload of trains in a short time with very little shunting (if any), which minimises the dwell and turnaround times of trains. Although marshalling yards at roll-on/roll-off terminals are not needed, these terminals commonly require a large amount of parking space to store the payload vehicles, particularly at regional distribution centres, which usually serve as storage facilities from where regional retail outlets are supplied. Roll-on/roll-off terminals are usually located at a port of import/export and on private sidings at a vehicle manufacturing plant and regional vehicle distribution centres. Roll-on/roll-off train services usually take place from vehicle manufacturing plants and ports of import to regional distribution centres, and often also from vehicle manufacturing plants to ports of export.

4.4. Intermodal terminals

The implementation of standardised intermodal container transport has in recent decades substantially enhanced the practice of transferring loads between rail wagons and road trucks, as well as promoting the close integration of freight rail transport and sea transport at port terminals. Containerisation has significantly improved the productivity of rail terminals, since it permits quick loading, unloading and transloading of the containers, thus tying up less terminal rail capacity. This gain in productivity is achieved through good access to a port and/or the road system, supported through automated handling operations to meet the transhipment demands of modern intermodal rail operations. However, the gain in intermodal terminal productivity comes at the cost of fixed investment in terminal facilities and handling equipment. Firstly, intermodal operations require capital investments at the terminals in paved platforms and surfaces for container-handling equipment and storage space for containers. Secondly, depending on the type of operation, specific intermodal handling equipment is used. The choice of equipment is dependent on (a) equipment-specific factors, namely (i) capital investment required, (ii) equipment maintenance and upkeep, and (iii) the employment of specialised equipment operators; and (b) operational determinants, (i) mainly productivity objectives, (ii) traffic volume, (iii) the need to directly transload containers between vehicles (rail, road and water) or to store containers intermediately between reception, and (iv) container stacking density during storage.[9]

The main function of intermodal rail terminals is receiving/loading and unloading/dispatching unitised freight from rail wagons. Regardless of the growth of intermodal traffic, the number of intermodal terminals has declined. Intermodal trains serve fewer destinations – especially container unit trains that are dedicated to one origin and destination terminal. This is especially the case in industrialised countries, where many of the older break-bulk freight yards have been abolished since the late 1960s and the remaining ones converted into intermodal terminals because of the burgeoning standard intermodal container and road transport traffic.

5. URBAN FORM AND LAND USE

Passenger trains most often operate as unit trains and remain assembled the way they are, therefore requiring few shunting activities and marshalling yard areas, if any. In contrast, freight rail terminals, with the exception of freight unit train terminals, have to accommodate substantial shunting activities, which require separate shunting and marshalling yard facilities. Huge freight rail land requirements and activities in densely populated urban concentrations are experienced as (a) being a relatively inefficient form of urban land use; (b) an origin of external cost creation through noise, visual intrusion and often air pollution, which are perceived as being person-unfriendly; (c) a hindrance to the supply of smoothly linked street networks; and (d) a nuisance in the way of accessibility to urban amenities, the mobility of urban road users and social cohesion.

However, redeveloping conventional break-bulk rail yards into contemporary intermodal terminals is problematic. The ideal configuration for intermodal terminals is different from the conventional break-bulk terminals used by wagon-load trains prior to the large scale introduction of unit train operations, especially standard container freight transport:

Firstly, intermodal terminals require fewer but longer rail loops than break-bulk terminals. The high productivity of intermodal terminals comes at the expense of more trackside container storage space required. Intermodal rail terminal layout typically requires a site longer than three kilometres and an area equivalent to more than a square kilometre.

Secondly, for most modern intermodal rail terminals, which only serve unit trains, there will be no need for a marshalling yard. Also, intermodal terminals that do receive non-unitised container trains have less need for shunting than break-bulk terminals, because it is much easier to trace containers electronically and reposition them to another vehicle or a storage position with mechanical handling equipment than to split up a train and shunt the container wagons. Thus marshalling yards, whenever they are needed, are often operated independently from the intermodal rail yard and located elsewhere, outside urban centres.

Thirdly, good access to a port and/or road system is a requisite. Intermodal terminals are usually located at the following three places: (a) ports; (b) junction stations; or (c) locus points in

major industrial and business districts, away from central business districts and densely populated urban areas.

- ***Ports***: Intermodal terminals can be part of a port facility (on-dock or near-dock facilities) where transloading between trains and ships takes place, either directly or via intermediate storage. Their infrastructure generally enables them to handle both road–sea traffic and rail–sea traffic. They have one or more quays where ships can moor, with railway tracks running parallel to the quay so that loading units can be transferred directly from ships to wagons, and vice versa, thus making substantial potentially derelict land areas available for redevelopment. The rejuvenation of such areas, because of their large size, proximity to business districts and waterfront position, has been at the forefront of the process. In addition this rejuvenation has also stimulated and changed land-use patterns in adjacent areas, for example the burgeoning of tourist amenities, convention centres and the hotel/accommodation industry. Notable examples of cities where such waterfront revitalisation and business district redevelopment has occurred on a major scale are: Baltimore, Boston, Chicago, New York, San Francisco and Seattle in the USA; Hamburg, London and Rotterdam in Europe; Adelaide and Sydney in Australia; Cape Town and Durban in South Africa; and Hong Kong.
- ***Junction stations***: At these terminals, shunting of wagons, the exchange of fixed blocks of wagon sets between crossing trains and the formation of wagon-load trains take place, access is provided to private sidings where unit trains are dispatched or received, and there may be traffic interaction with road transport. Junction stations are therefore equipped with multiple shunting sidings, unit train sidings and marshalling yards. Notable examples of cities where business and residential district redevelopment occurred on a major scale where huge rail yards at large junctions relocated to industrial areas are Atlanta and Chicago in the USA.
- ***Locus points***: Standalone inland focal rail terminals in industrial or business areas have to be accessible for road freight vehicles. These rail terminals' locations are typically separated in such a fashion that each terminal can serve a market area of about one day of road freight round or return trip. Locus point terminals may have private rail sidings (ranging from small sidings catering for light container traffic movements to major sidings catering for long container train subsets and complete container unit trains) connected to them. With the burgeoning of contemporary business logistics practice and the widespread use of intermodal containers, locus point rail terminal location has become common practice in most industrialised countries.

6. CONCLUSIONS

Passenger rail terminals tend to be located in urban areas where many passengers board and alight, and surrounding land-use patterns are person-friendly, while freight terminals have become increasingly separated from densely populated urban locations. Huge freight rail land requirements and activities in densely populated urban concentrations are experienced as (a) being a relatively inefficient form of urban land use, which bears a high opportunity cost; (b) an origin of external cost creation through noise, visual intrusion and often air pollution, which are perceived as being person-unfriendly; (c) a hindrance to the supply of smoothly linked street networks; and (d) a nuisance in the way of accessibility to urban amenities, the mobility of urban road users and social cohesion.

Rail transport can carry large and high-density commodities and bulk consignments over long distances at low cost. Rail transport is well suited, therefore, to carrying raw materials and semi-finished goods, such as mining and agricultural products. The introduction of standard intermodal containers has promoted the conveyance of high-value finished products. Since the economic deregulation of freight transport, the socioeconomic service and common-carrier obligations of freight rail transport operators have given way to contract services. Consequently a feature of freight rail systems nowadays is the reduction of stations, depots, yards, halts and private sidings. By concentrating reception and delivery of freight at fewer but larger stations, rail transport operators can attain economies of distance through longer hauls and economies of density through greater utilisation of rolling stock and intensive use of large terminals.

Private sidings nowadays tend to branch into large yards that often provide access to bulk rail terminals, roll-on/roll-off terminals and intermodal container terminals. **Bulk rail terminals** are designed and equipped to load and unload the payload of trains in a short time with very little shunting (if any), which minimises the dwell and turnaround times of trains. The storing area at bulk rail terminals required for stockpiled payload commodities is often smaller than the area that would have been needed for a marshalling yard. Bulk rail facilities at the departure side are usually located on a private siding and at the destination side, either also at a facility on a private siding or at a seaport. **Roll-on/roll-off rail terminals** do not need marshalling yards; however, these terminals commonly require a large amount of parking space to store the payload vehicles, particularly at regional distribution centres, which usually serve as storage facilities from where regional retail outlets are supplied. Roll-on/roll-off terminals are usually located at a port of import/export and on private sidings at a vehicle manufacturing plant and regional vehicle distribution centres. Regardless of the growth of intermodal traffic, the number of **intermodal terminals** has declined. Intermodal trains serve fewer destinations – especially container unit trains that are dedicated to one origin and destination terminal. Intermodal terminals are usually located at the following three places: (a) ports; (b) junction stations; or (c) locus points in major industrial and business districts, away from central business districts and densely populated urban areas. ***Port*** rail sidings running parallel close to the quay so that containers can be transferred directly from ships to rail wagons, and vice versa, make substantial potentially derelict land areas available for redevelopment. The rejuvenation of potentially derelict land areas at ports, because of their large size, proximity to business districts and waterfront position, has also stimulated and

changed land-use patterns on the areas adjacent to them, for example the burgeoning of tourist amenities, convention centres and the restaurant/hotel/accommodation industry. ***Junction stations*** cater for the shunting of wagons, the exchange of fixed blocks of wagon sets between crossing trains and the formation of wagon-load trains. Access is provided to private sidings where unit trains are dispatched or received, and there may be traffic interaction with road transport. ***Locus point rail terminals*** are typically separated in such a fashion that each terminal can serve a market area of about one day of road freight round or return trip. With the burgeoning of contemporary business logistics practice and the widespread use of intermodal containers, locus point rail terminal location has become common practice in most industrialised countries.

From the research it is clear that the economic deregulation of freight transport in industrialised countries has, in addition to the beneficial transport economic and business logistics consequences, also had profound unintended impacts on urban land-use patterns and industries not directly related to rail freight transport. One such impact is the opportunity that is created for business revival and social enhancement in abandoned and derelict urban areas, and another is the challenge it poses to urban transportation land-use planners to timeously assist in preparing for urban renewal and redevelopment whenever it promises to be in the public interest.

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EVIDENCE OF INTERNAL AUDITING IN ITALIAN LISTED COMPANIES

Maurizio Rija, Paolo Tenuta *

* Department of Business Science and Low, University of Calabria - Ponte P. Bucci 87036 Arcavacata Rende CS (Italy)

Abstract

This paper aims to provide an overview of how internal auditing has been adopted by companies listed in the STAR segment of the Italian Stock Exchange, and of the choice on its organizational position. After a review of the existing literature, the research aims to analyze the information emerging from corporate governance reports in 2014, in reference to the year 2013, which the companies prepare as part of information provided annually to the market. The sample for analysis is the group of companies (n. 69) belonging to the FTSE ITALY STAR Italian Stock Exchange. The research has shown, as the first element in the survey, that nearly all of the companies have created a dedicated function or outsourced the internal audit activity. The second major finding from the analysis is that in most companies the function depends hierarchically on the board. The third point analysed concerns the figure of responsible for Internal Auditing, as established by the Code of Conduct, it replaces the person responsible for internal control and risk management. The analysis showed that almost all the companies have attributed the tasks and responsibilities of the person responsible for internal control to the Head of the Internal Audit Department, due to the coincidence of the operating environments of the two figures and the strong synergies between the two roles. The last point analyzed covers the case where the internal auditing department is decentralized or, on the contrary, remains within the company. The results showed a substantial range of companies chose not to outsource the function.

Keywords: Internal Auditing, FTSE Italia Auditing, Corporate Governance, Control

1. INTRODUCTION

In a context in which companies need to manage an ever-growing range of risks and where corporate governance has a growing importance for the credibility and reputation of market operators, the adequacy of the structure and organization becomes an essential variable to facilitate management costs.

The internal audit function and, more generally, corporate control, as a function of support for choices and management operations, in recent decades has undergone a significant revolution, especially with regard to large corporations.

The development of internal auditing has brought with it a new culture of corporate control that does not solely rely on on-the-spot inspection but interprets auditing as an essential support for managerial activity.

The internal audit is, therefore, the pivot around which the company's whole system of internal controls rotates. Unlike that in Anglo-Saxon countries, in Italy the debate on the function, nature and systematic position of internal auditing has only begun to be the subject of discussions in a much more recent period.

On the other hand, it is to be noted that, for about twenty years, business management doctrine, noted the centrality of this process in the field of corporate governance, and it has extensively discussed the issues of internal auditing providing an important contribution to economic units for the creation of this function within the corporate environment. The aim was to improve their internal control system, improve the effectiveness of actions with the aim of mitigating risks and enabling governance processes to be developed according to best practices shared and accepted by the community (D'onza, 2013, p. 3).

The regulatory and internal assurance mechanisms to support top management in the delicate process of selection of information, evaluation of alternatives and identification of strategic and operational processes were adopted by the main Italian companies in order to meet business and government goals entrusted to them.

In a particularly turbulent economic context, and one of often poorly coordinated new regulations, there is an increased need for top management to form a staff equipped with specific methodological tools aimed at ensuring compliance with operational objectives compared to strategic objectives, the correct conduction of management processes of business risks that could compromise the attainment of such objectives and the adequacy of surveillance systems that were built and which have been upgraded to support company management.

It is precisely in this context that internal audit activity has taken hold in countries such as Italy, where the internal audit system is presented culturally as inspection following processes rather than constituting a moment of corporate support. Large enterprises in Italy have thus opted for the establishment of ad hoc internal auditing,

responsible for guaranteeing the existence, compliance and adequacy of control systems and corporate risk management processes (Regoliosi et al, 2011, p. 767).

This paper seeks to provide an overview of how, as part of the companies listed in the STAR segment of the Italian Stock Exchange (companies belonging to the FTSE ITALY STAR), the choice relating to the organizational position of internal auditing was adopted and what the essential elements are constituting the basis for the construction of an ideal model.

The observation on listed companies is a useful reference point for the analysis of this function, as well as of the relationship with other corporate governance organs.

First, it is obvious that the typical size of listed companies, even smaller ones is, at least theoretically, the most appropriate to establish a system of governance, complete with internal auditing and additional bodies established by international best practices and codes of conduct; secondly, in recent years in listed companies there has been an unprecedented attempt to detail auditing functions.

In fact, the functions in question have successively received attention of the law, of supervisory authorities (Consob, Bank of Italy and Ivass), of the market operator (Italian Stock Exchange), of trade associations (CNDCEC, Assonime and Assirevi), not to mention the influence exercised in such companies by the increasing contact with international experiences and practice in auditing.

Therefore, in this work, investigations will be conducted to verify the presence of internal auditing within the companies in the sample; the hierarchical dependence of the function in question; the main lines of dependence; the attribution of duties and responsibilities typical of the body responsible for internal control to the manager of the internal auditing; the relationship between this figure and other corporate governance organs; the coincidence of the post of head of the internal audit (in relation to legislative decree n. 231/2001) with a standing member of the supervisory board and cases of centralization or decentralization of the function in question.

2. INTERNAL AUDITING: INDEPENDENCE AND REGULATION

Regarding the objectives pursued by the internal audit, it is important to remember that the "internal" attribute has the task of qualifying the objective for which this revisional type has been implemented. In other words, the internal audit is conducted for internal purposes; these purposes are to inform and document top management systematically on the status and operation of activated control systems, to address the specific risks of the company, all which are required to enable a systematic approach to analysis. Evaluation and control are essential in guiding the management of the enterprise system towards the goal of creating value (Troina, 2005, pp. 20-21).

Conceived thus, internal auditing must not necessarily be carried out by a body within the company. Indeed, it is a feature that should always be executed in the name and on behalf of top management and, manifestly, can either be assigned entirely to a body of internal staff or, or partially assigned to external bodies, i.e. auditing professionals who will only ever answer to the top management of their auditing activity.

The results of some research (Oppedisano, 2009, pp. 334-335; D'onza, 2013, pp. 65-67) have shown that there is less inclination to externalise activity, or rather to externalise a minimum part of the activity. The reasons for this choice are multi-faceted, such as the fear of revealing sensitive information to external parties, or the perception that the presence of a subject within the organisation can develop a more in-depth knowledge of management processes and mechanisms that govern functioning of the organisation; or that an external body due to a less close link with the top management, could create the risk of being more subject to pressure from peripheral structures, endangering their own independence.

Reliability and integrity of information; compliance with policies, plans, procedures laws and regulations; protection of the business, the effective and efficient use of resources, the reaching of objectives and goals established by operative activities and programmes are among the primary objectives of internal auditing (Mauro et al, 1989, p.16).

Therefore, the goal of internal auditing is to aid members of the organisation in executing their tasks in an economical way, providing them with analyses, appraisals, recommendations, advice and information about the activities considered. Furthermore, it contributes and aids the evaluation and implementation of management and risk control systems; conducts risk assessment activities and evaluates auditing providing their results to the management. Finally, it provides objective opinions on the appropriateness of controls in the preparation of accounts and financial information.

From the new definition of internal auditing proposed by the Associazione Italiana Internal Auditors (AIIA), in line with that provided for by the American organisation, it is possible to deduce a role change from internal auditing to activities. In fact, it is important not just to consider the organizational unit itself, but it is also necessary to take into account the type of activity that occurs, regardless of the cooperation of the person conducting it.

In the same definition, it is held that the English term "assurance" includes all those actions aimed at increasing the quality of decisions, of the information and of the context in which the organization operates. It is, in essence, of those services that facilitate access to information, making them more reliable and relevant.

A further activity of internal auditing is recognised, namely that of consultancy. This means that the internal auditor must be able not only to carry out inspection and analysis, but also to form proposals with regard to the setting and planning of the internal control systems.

The activity of the internal auditor is, therefore, one aimed at improving the effectiveness and efficiency of the organization, namely an improvement of the ability to achieve objectives (effectiveness) and to minimize the use of scarce resources (efficiency) and, in using them, support

the lowest possible cost (economy). Thus, the activity does not consist exclusively of the exercising of mere inspections but rather the execution of real organizational consulting.

In order that internal auditing is able to fulfil the objectives assigned to it with professional competence, it is essential to maintain the requirements of independence and objectivity as much as possible. Independence, as is known, is a fundamental and indispensable condition that must characterize not only internal auditors' activities but also those of all control bodies. Therefore, for its position as support staff to senior management, internal auditing is limited to assessing and reporting, without interfering in any way with the operating line, safeguarding the requirement of independence. At the same time, objectivity refers to the attitude of the internal auditor who must operate impartially and free from prejudice (D'onza, 2013, pp. 62-63). To preserve their independence, it is worth examining what is provided for by international standards for professional practice drafted by IIA. The preferable solution is, unanimously, held to be that of positioning internal auditing in staff at the highest governing body, establishing a functional relation with the internal auditing committee, the board or other appropriate corporate governance bodies and a hierarchical relationship with the board of directors (D'onza, 2013, p. 61). This means that the governing body must approve the internal auditing mandate, evaluate risks and the relative audit plan, receive communication on the results of activities conducted, and approve decisions relative to the appointment or removal of the manager as well as his remuneration and relative adjustment. In addition, the apical organ must perform appropriate inquiries with management and with the head of internal auditing in order to verify whether there are budget limitations that may prevent it from fully implementing its responsibilities.

Although IIIA considers that the ideal approach is functional dependence of the committee for internal control and hierarchical dependence on the board of directors, the organization provides other alternatives that can be effective such as that of placing it in staff on the control and risks committee, where present, and with a composition that reflects the requirements of the best practices in corporate governance, or the choice of a hierarchical relationship with a single subject, be it the chairman, the CEO or the president (Oppedisano, 2009, pp. 339-340).

In recent years, the Italian legal system has witnessed the introduction of some important changes in corporate governance and internal control and risk management systems, innovations that are included in a regulatory framework which, for some time, has been subject to profound change.

In particular, it is necessary to draw attention to the regulation, adopted on a voluntary basis, of the new Corporate Governance Code for listed companies issued by the Corporate Governance Committee, set up by the Italian Stock Exchange and subsequently revised, outlining the structure of internal control and risk management systems, the relationships that supervise such a system and the coordination between the various subjects involved in control processes in a clearer and more organic way.

The 2011 version of the code, and subsequent updates, include a recommendation for listed companies to set up internal auditing. In the new document, the head of internal auditing replaces the person responsible for internal control, with recognition of a strong independence expressed both through the assignment of independent powers of initiative in the preparation of the audit plan and through rules established for the appointment, removal and remuneration of its manager. In this context, the powers reserved to the board denote the existence of a genuine hierarchical relationship of the head of internal auditing.

The code also provides for the possibility of entrusting internal auditing, either as a whole or by business segments, to external parties provided they have adequate requisites of professionalism, independence and organization. The adoption of such organizational choices, adequately justified, are communicated to shareholders and the market through the corporate governance report prepared annually by listed companies.

It is important to remember that the company's subscription to the code is voluntary and is not a source of any legal obligation. However, it does constitute a model of organizational and functional reference on which companies are entitled to draw on to pursue efficient, fair and transparent management.

As required by the code of conduct, in reference to internal auditing, it has long been an essential part of the internal control system of the banking and insurance sectors, where regulation and practices are extensive, detailed and historically already regulated.

To complete the context, it is useful to bear in mind the provisions of international standards for the professional practice drawn up by the Institute of Internal Auditors. According to these standards, the head of the function must depend on an organizational level able to permit the internal audit activity to meet its responsibilities.

The I.I.A. highlights that, in order to maintain the necessary distance, the manager should refer functionally to the control and risk committee, to the board or to other appropriate corporate governance bodies.

The functional dependence of internal auditing constitutes its primary source of independence and authority. In fact, effective organizational independence is achieved when the chief audit executive reports functionally to the governing body. The latter (the control and risk committee, the board, or another governing body) has to approve the appointment/removal of the head of internal auditing and also the audit plan based on risk assessment; it will receive communications from the audit manager on the results of the plan and other relevant issues, perform appropriate checks with management and the head of internal auditing to see if there are budget limitations that may prevent it from operating effectively.

The I.I.A. contemplates that the audit manager's dependence can be influenced by the organization's own nature, such as size, the customs of the country in which the business operates and the growing complexities of the organizations.

3. EMPIRICAL ANALYSIS: OBJECTIVES AND RESEARCH METHODS

The analysis was based mainly on information emerging from the 2014 corporate governance reports, in reference to 2013, which the companies prepare annually as part of information for the market. The research aims to verify the organizational position of internal auditing as part of some major Italian companies. In fact, listed companies subscribing to the code of conduct, either wholly or partially must grant information annually to the market, within the terms and in the manner established by law and applicable regulations.

The reference companies, at the time of this study, belong to the FTSE ITALIA STAR index (Segment of High Requirement Shares) of the MTA Borsa Italiana market which is dedicated to medium-sized listed companies with capitalization of between 40 million and 1 billion euro, that undertake to meet standards of excellence in terms of high transparency and high communication purpose, high liquidity (35% minimum free float) and corporate governance in line with international standards.

The index is formed by 69 companies belonging to different sectors, as shown in table 1.

Table 1. List of companies in FTSE ITALIA STAR divided by sector

SECTOR	*Company*
Industrial/utilities	Aeffe, Amplifon, Ansaldo Sts, Ascopiave, Astaldi, B&C Speakers, Biancamano, Biesse, Bolzoni, Brembo, Cad It, Cembre, Cementir Holding, Centrale del Latte di Torino, D'Amico, Dada, Damiani, Datalogic, Digital Bros, Ei Tower, El.En., Elica, Emak, Engineering, Esprinet, Eurotech, Exprivia, Fidia, Fiera Milano, Gefran, Igd-Siiq, Ima, Interpump Group, Irce, Isagro Group, It Way, La Doria, Landi Renzo, Marr, Moleskine, Nice, Panariagroup Industrie Ceramiche, Poligrafica S. Faustino, Prima Industrie, Reno De Medici, Reply, Sabaf, Saes Group, Servizi Italia, Sogefi, Tesmec, Txt, Zignano Vetro.
Banking	Banca Finnat, Banca Ifis, Banca Popolare dell'Etruria e del Lazio
Insurance	Mutuionline, Vittoria Assicurazioni
Service	Acotel Group, Cairo Communication, Falck Renewables, Mondo Tv, Ternienergia, Yoox.
Investment	Bb Biotech, Dea Capital, Tamburi Investment Partners.

Source: own elaboration of data

The first important element to highlight is that almost all the companies in the sample have either instituted or externalized internal auditing.

In recent years, there has been a rapid growth in the number of companies choosing to implement internal auditing within the company, in order to optimise the internal control system to address a situation of financial crisis and market turbulence caused by recent numerous financial scandals. In this regard, it should be recalled that there are several studies in the literature that have aimed to verify its presence within the company. This trend manifested itself mainly in Italy, where in the last twenty years, the implementation of this feature in the enterprise, corresponds to two thirds of the total number (Arena et al, 2006, p. 41-44). In a comparative study between Italy and the United Kingdom, Tettamanzi has shown that the internal audit function was instituted fairly recently in Italy; only less than half of the companies have had an internal auditing function for over fifteen years (Tettamanzi, 2000, pp. 1-18). In a study based on 365 Italian companies with the aim of verifying the existence and properties of internal auditing, Arena, Azzone, Casati and Mello, have shown that 74% of the companies implemented this function (Arena et al, 2004).

Arena, Arnaboldi and Azzone identified three categories of companies: non internal auditing adopters (companies without their own internal auditing department), institutional internal auditing adopters (companies in which there is a formal internal auditing department, with a well defined role within the organization and whose constitution is due to pressure arising from legislative requirements) and the non-institutional internal auditing adopters (companies that have implemented an internal auditing department for reasons that differ from legal requirements) (Arena et al, 2006, pp. 275-292).

Shifting focus away from the national context, it is possible to find analyses on the existence of internal auditing in different countries such as Holland (Swinkels, 2012, pp. 133-152), Australia (Goodwin et al, 2004, pag. 1-34), the United States of America (Carcello et al, 2005, pp. 117-127) and Belgium (Abdolmohammadi et al, 2011, pp. 1-20).

All the studies examined have had the search for a logical and credible explanation that can adequately explain the presence of the internal auditing function in the various enterprises of the country under study as the objective at the base of their research.

From the analysis of companies in our sample survey, it emerges that the only cases where such provision is not made concern an investment company and four industrial companies, as the respective boards of directors believe that due to the structure and size of companies the internal control system can be regarded, on the whole, as able to ensure the objectives of good management and monitoring purposes and reporting provided for by internal auditing.

However, in all cases examined, the internal auditing department is located at high organizational levels with direct dependence, as we will be able see later, on the representatives of top management and/or corporate bodies.

From this, it is possible to infer that the role assigned to internal auditing is considered crucial to the effective comparison of the results of the processes related to the verification of adequacy, evaluation investigation, identification and analysis of major risks, all to support the Board in identifying guidelines for adequate systems of internal control and risk management.

Therefore, it is necessary that the manager of internal auditing is, from an organizational standpoint, in a position to permit the performance of auditing activities with objectivity and independence with regard to operational activities,

and to be representative also in regarding other corporate structures, of the strong commitment that characterizes the assignment of this responsibility.

3.1. The placement of the organizational structure

In general, in order to pursue objectives of independence and autonomy, the internal auditing body is placed in a position of functional dependence on the board of directors or on the Audit Committee and in a position of hierarchical dependence with the top management body with executive power (Giansante, 2009, pp. 119-122). Functional dependence allows an immediate support and contact with the recipient of activities while the position of subordination to the CEO allows for direct monitoring of the activity undertaken by internal auditors and on results obtained (EUROPEAN CONFEDERATION OF INSTITUTES OF INTERNAL AUDITING (ECIIA), 2007, pp. 23-24). Consequently, the observation made that the internal audit body covers the position of *staff* (Iodice et al, 2013, p. 93) compared with the highest level of company organization (Pilati, 1999, p. 125).

Internal auditing is a function that, by explicit definition of activities by IIA, must be characterized by independence, objectivity and autonomy. The position of the body within the corporate organization must be well-defined and inserted in a higher position compared to levels and areas of the business subject to control (Arena et al, 2009, pp. 43-60). The positioning of internal auditing within the shareholder structure is a topic of fundamental importance for adequacy of the task of revision. In fact, over time, in the literature, numerous studies have addressed this topic (Goodwin et al, 2001, pp. 107-125 (Raghunandan et al, 2001, pp. 105-118).

However, internal auditing could also be outsourced; in fact, the company, in an attempt to pursue greater independence has the faculty to entrust internal auditing to an external company (HERMANSON et al, 2003, pp. 58-59).

The framework outlined clearly illustrates the need to place the internal auditing body in a prominent position within the organization of the company, at an intermediate level between the executive body with the power and decision-making organs of control and administration.

In literature, the positioning of this function within the company has been much discussed, since there is no legislation obliging its precise placement within the company. Some scholars have conducted research in order to collect data and information that could highlight a prevailing *trend.* Allegrini and D'onza, in an empirical investigation in 2003 highlighted that of the 70 companies forming their sample, almost half depend directly on the CEO, manifesting a clear strategy (ALLEGRINI et al, 2003, pp. 7-8). In 2004, Gramling, Maletta, Schneider and Church examined the relationship between the internal auditing body and other corporate bodies (board of directors, external auditors, audit committee) (GRAMLING et al, 2004, pp. 194-244). Others demonstrated how the position of internal auditing in company organization is mainly dependent on interactions with the board of directors and the audit committee (Anderson, 2003, pp. 97-110; Sarens et al, 2011, pp. 191–204). From an analysis conducted by the American Accounting Association it emerged that subordination of internal auditing to the board of directors consents greater pursuance of the objectives of independence and objectivity (AMERICAN ACCOUNTING ASSOCIATION, 2015, pp. 12-13).

In the present work, we sought to examine the positioning of the function within the company, on the hierarchical dependence of the person in charge of internal auditing and on the reporting lines of auditing.

Table 2 presents that which emerged from the analysis on sampled companies in our study regarding hierarchical dependence.

Table 2- Hierarchical dependence

Board of directors	63%
Chair	10%
Audit and risk committee	13%
CEO	6%
Director nominated by the internal audit system	6%
General management	2%
Statutory auditors	0%

Source: own elaboration of data from 2014 corporate governance reports

The results show a trend in compliance with the choices of corporate governance for companies with professional standards and guidelines recommended by the Code of Conduct in order to ensure the highest degree of independence of internal auditing, requiring, among other things, that the head of internal auditing does not hold responsibility for any operational area and depends hierarchically on the board.

In this case, referring to a body without operational authority, such as the board of directors, shields the internal auditing staff from influence and from any pressure exercised by the executive management, which not only will not have authority to intervene directly on them, but will have to comply with the decisions taken by the board in relation to that emerging from auditing activity.

Moreover, this independence is more reliable if the recipient of the audit findings is a committee within the board of directors, such as the control and risk committee. This solution plans that the results of the internal auditors are directed to an articulation of the board consisting of directors in possession of particular requirements of independence ensuring the effective independence of the function and its effective functioning (Reboa, 2007, p. 26).

In detail, analyzing 49 companies in the FTSE ITALY STAR industrial/utilities sector, adopting the traditional governance system, it was possible to verify that approximately 71 % of them refer to the

board (35 of 49), while the remaining 29 % relate to positions with management mandates (14 of 49).

The increase of the percentage of dependency from the management board is justified by the presence of the committee as a body of support and connection directed by the collegiate body, by virtue of the responsibilities assigned to it in relation to the internal control and corporate risk management system. For this reason, the choice of some companies in the sample is worthy of attention; they opted to balance the direct dependency line to the collegial body, adding a line of functional dependence from the controls and risks committee.

This conclusion is evident to a greater extent if only banking sector companies (3) are taken into account, also in light of the specific reference standards, where all are hierarchically dependent on board of directors. Worthy of indication is a bank that provided a functional dependence on the supervisory board and the control and risk committee.

In reference to the case of insurance sector companies (2), internal auditing reports to the Board of Directors. In particular, one insurance company established a direct hierarchical dependence on the board of directors by means of coordination led by the control and risk committee and it established a functional link with the CEO.

As for companies in the services sector (6), the function depends hierarchically on the board of directors. In particular, in three cases, internal auditing depends directly on the supervisory board while in the remaining cases it depends on the control and risk committee and on the non-executive chairperson.

Finally, in companies in the investment sector, (2), it emerged that in one case, the function depends hierarchically on the board of directors, while in the other, the company sought to balance lines of direct dependence from the top executives, with a functional type dependence line from the control and risk committee.

However, regarding results for the reporting lines, we note, as expected, that the head of the internal audit reports periodically to the control and risk committee and the supervisory board, i.e. the bodies to which a supervisory role and monitoring the system of internal control and risk management is assigned, as well as to the administrator in charge of the internal control system and risk management, as the figure responsible for operation of the internal control system (Table 3).

Table 3. Reporting lines

Chair of the board of directors	60%
Audit and risk committee	95%
Management committee	2%
Risks and operations committee with related parties	2%
Director nominated by the audit system	74%
Statutory auditors	85%
Supervisory body	15%
Director in charge of company's financial statements	2%

Source: own elaboration of data from 2014 corporate governance reports

3.2. The head of internal auditing

The head of internal auditing function continuously verifies the operation and suitability of the internal control and risk management system in accordance with international standards, through an audit plan based on a structured analysis and identification of key business risks approved by the board of directors.

The Code of Conduct for Listed Companies (Preda Code), in contemplating the internal control system, states that the company should avail itself of at least one *person in charge of internal control.* It is identified with the head of the internal auditing function, who has the task of checking that the internal control system is always operational and functional, reporting on its operations to the audit committee and the statutory auditors (Francone, 2011, pp. 170-186). In his 2004 research, Melis showed that 16.5% of Italian listed companies, representing approximately 50% of the market capitalization, appointed a person in charge of internal control following publication of the Preda code (Melis, 2004, pp. 74-84; SPIRA, 1998, pp. 29-38).

Since 2011, reference has no longer been made to the person responsible for internal auditing, a locution with far too nuanced contours that created many difficulties in rebuilding the system; however, reference is now made to the head of the internal audit function.

In this regard, additional aspects to be investigated with the following analysis, concern whether the figure of the head of internal auditing has also been given the tasks and responsibilities of the person responsible for internal control and on the relationship between the figure responsible for internal auditing and for other supervisory bodies of the company.

In relation to the first point, the analysis showed that in 95% of the companies analyzed, the head of the internal audit function was assigned the duties and responsibilities of the person responsible for internal control. This conclusion is justified by the current and substantial coincidence of the operating environments of the two figures and the possible strong synergies between the two roles. In the remaining cases, the head of the function assists the person responsible for internal control in the performance of their duties with regard to the system of internal control and risk management.

In particular, it is noted due to some organizational factors (company size, group structure, centralized system of responsibility, etc.) that the company, despite having established an audit unit, has not yet appointed the person in charge of internal control as provided for, instead, by the Code of Conduct.

As for the relationship between the figure of the head of internal auditing and other control bodies, in many of the corporate governance reports analyzed it was recognized how corporate

governance is entailed essentially in an advisory and periodic informative report.

The innovation of law n. 262/2005 and Legislative Decree no. 231/2001 (mandatory compliance and expansion of corporate crimes for listed companies) required a greater effort of businesses and a significant impact on the internal auditing. On the one hand, they have helped increase its visibility and the importance of involving it in the activities of adaptation of company operations. However, on the other hand, its workload has been increased which, as is often the case of medium sized companies, operates with human and financial resources that are generally limited compared to the tasks that are required of it.

To cope with the increased workload, to maximize the efficiency of the internal control system and to reduce any duplication, it is therefore necessary to manage compliance and other typical activities of internal auditing in an integrated manner.

Integrated management requires strong coordination and, preferably, significant integration when evaluating the adequacy of the control system, since it must be designed to ensure the reliability of financial information and the prevention of business risks (Cortesi et al, 2007, p. 341), as well as the protection of the shareholder structure against crimes provided for by legislative decree n. 231/2001.

The head of internal auditing tends to relate to all the bodies representing the system of internal control and risk management. In particular, it relates more with the control and risk committee and the supervisory board, which is enshrined in art.150, paragraph 4 of the Consolidated Finance Act (TUF), which states: those who are responsible for internal control also report to the supervisory board on their own initiative or at the request of even one of the members.

In addition, in relation to the recommendations of the Code of Conduct, as part of its activities, the auditors may ask the internal audit to perform checks on specific operating areas or transactions. This confirms the explicit relationship between the supervisory board and the function in question, which therefore constitutes the operational arm of the control body for the performance of their duties (Regoliosi, 2009, pp. 235-237).

The relationship with the control and risk committee is equally important because, from the available data of the analysed governance reports, it is possible to deduce participation of the president of the supervisory board (or a member delegated by the president) and of the person in charge of internal control. The contribution that is particularly significant for the effectiveness of work is that of the manager responsible for internal control, or rather of the manager responsible for internal auditing. That observed seeks to highlight how, in fact, the person responsible responds functionally to the committee being, moreover, independent from any operative corporate structure (Cortesi et al, 2007, p. 337).

In the specific case of the companies analyzed, there is close cooperation between the head of internal auditing and the executive person in charge, supporting him in his activities of monitoring the system.

Finally, it is possible to notice additional and important relations of cooperation and coordination between the head of internal auditing and the supervisory body. The latter has the main task of supervising the functioning and observance of an organization and management model capable of preventing corporate crimes. Also in this case, internal auditing, with its cultural theme in corporate and risk management, provides crucial support in the construction of an organization and management model, to be immersed in the operating reality of the company; it cannot be exclusively elaborated by consultants from outside the company.

In conclusion, internal auditing facilitates integration between corporate bodies responsible for governance and control favoring the coordination and exchange of relevant information flows (Associazione Italiana Internal Auditors, 2008, p. 601).

3.3. The administrative liability of legal companies

Legislative decree N. 231/2001 on the *administrative liability of legal persons, companies and associations also without legal persons* has implemented a series of rules designed to strengthen, on behalf of the companies, the ability to obtain the adoption of correct and transparent behaviors, together with the supply of instruments and procedures aimed at preventing possible risky situations (De Vivo, 2012; Giacoma et al, 2010; Valensise, 2009, pp. 355-382). In other words, this model allows the prevention of crime by implementing suitable defence mechanisms and the provision of certain forms of organization, management and control (Gandini et al, 2008, pp. 12). The decree provides for the company's establishment of a supervisory body assigned to the control of the effective adoption of the model contained in the legislative document and its adequacy. The composition of such a body is not provided for by the discipline under examination and, therefore, can have both a monocratic and collegial form with both internal and external members, at the complete discretion of the company (GRUPPO DI STUDIO 231 - ODCEC TORINO, 2011, pp. 22-35). In this regard, one of the bodies accredited to cover the role of supervisory body is that of the internal auditing of the company, since it has the task of supervising the overall control system within the institution and of ensuring, therefore, that risk management effectively meets the actual business needs (Petrillo, 2010). Furthermore, very interesting results were obtained from research on the composition of the supervisory body in a sample of 88 unlisted companies conducted by the Associazione Italiana Internal Auditors with Confindustria, in January 2007; in more than half of the companies (55%) the head of internal auditing fulfils the role as an effective member of the body (OSSERVATORIO D.LGS. 231, 2007, pp. 7-18). In 2008, Gandini and Gennari studied the body provided for by legislative decree 231/2001 in a group of banking companies listed on the Italian stock exchange, highlighting that in 70% of the cases the supervisory body coincides with the internal auditing body or with another internal control body (Gandini et al, 2008, pp. 17-24). In 2009, Previtali conducted another analysis of the structure of the

supervisory body of 146 companies listed on the Milan stock exchange, noting that 94% have a supervisory form and 60% showed the presence inside of the person responsible for internal auditing (Previtali, 2009, pp. 35-52).

The trend manifested in the various studies is that, in most of the companies that chose to create an internal supervisory body, the latter includes the head of auditing or coincides directly with the internal auditing body.

The adoption of the organizational and management model referred to in legislative decree 231/2001 is among the requisites required of the company to be part of the STAR segment. The model must be tailored to the organizational reality to which it refers, in order to meet the emerging needs of the actual structure and organization of the institution.

Therefore, as stated above, the head of the internal audit should adopt various measures to ensure effective implementation of the model, and especially in medium sized companies they are appointed as part of the supervisory body in the majority of cases.

For this reason, in the companies considered, the majority chose a member of the supervisory body as the head of the internal audit.

The results of the company divided according to business segment are shown in the following table.

Table 4. Cases of appointment of the internal auditing manager as member of the supervisory board

SECTOR	Number of COMPANIES
Industrial/utilities sector	27
Banking sector	2
Insurance sector	1
Service sector	5
Investment sector	1
TOTAL	36

Source: own elaboration of data from 2014 corporate governance reports

It should be noted that, ultimately, the sampled companies have used this provision, as from a total of 62 companies, 36 provided for the appointment a member of the supervisory board as head of the internal audit. In some cases, due to the size of the company, it was possible to verify that the body in charge of internal auditing is the only one responsible for the supervisory body.

The Code of Conduct confirms the possibility of entrusting internal auditing, as a whole or by business segments, to a party that is external to the issuer, provided it is equipped with adequate professionalism, independence and organization.

An important point of the development of internal auditing lies in the provision of a definitive interpretation of it, according to which internal auditing necessarily had to be conducted by persons from within the hierarchical structure.

The choice of such a position was considered to be of primary importance to codify the internal property of the interests protected from the activity in question, consisting in the improvement of the company's economy.

Doing so, however, had created a static activity, that was neither effective nor efficient, which made it much more advantageous to outsource to people with more skills.

However, over time, a similar position was overtaken by practice and by the discipline, more clearly outlining the extreme strategic importance of the internal auditing department.

Within groups of companies, internal auditing can be organised differently. Internal auditing can, in fact, be conducted through the use of a *centralized structure* (the internal auditing function of the holding is responsible for conducting the activity for all the companies within the group, or for setting up an ad hoc company subject to the holding company focusing exclusively on auditing all the subsidiaries) or a *decentralized structure* (internal auditing is an activity and is implemented in each of the companies in the group) (Faldetta et al, 2008, pp. 342-345). In 2000, in a comparative analysis between Italy and the United Kingdom Tettamanzi found that the majority of Italian cases preferred a centralized model (73%), while the groups choosing a decentralized model were a distinct minority (20%). Instead, in the United Kingdom, the choice of delegating internal auditing to a body of the holding was adopted by just over half the groups (56%), with a number of companies adopting a consistent decentralized structure (38%) (Tettamanzi, 2000, pp. 16-17). In a 2003 study, Allegrini and D'Onza found that within the listed companies on the Italian market, those using a centralized model accounted for 46%, in close proximity to the companies preferring a decentralized structure (42%), with the remaining 12% choosing to create a new company to deal with the group's internal auditing (Tettamanzi, 2000, pp. 16-17).

It is necessary to understand whether it is possible to entrust such an important activity outright to a third party. Abstractly, in small sized companies, the response can only be positive as it addresses highly qualified activities.

From a practical standpoint, larger companies find themselves in a different position in that they tend to safeguard the confidentiality of information and not to outsource significant portions of corporate governance.

The issue is addressed differently within the discipline, with preference for both forms. Therefore, within the companies studied, a further object of the analysis conducted is the verification of whether, internal auditing remains within the company or whether it is outsourced.

The following table shows the results regarding the number of companies in the sample divided according to business sector:

Table 5. Centralisation and decentralisation of internal audit activities

Sector	*Centralisation*	*Decentralisation*
Industrial/utilities	35	14
Banking	3	0
Insurance	2	0
Services	5	1
Investment	1	1
TOTAL	46	16

Source: own elaboration of data from 2014 corporate governance reports

As can be seen, the sample companies tend not to outsource internal auditing as, from 62 companies, only 16 tended to entrust, either entirely or partially, the activity to outsourcing.

This result is justified by the fact that a centralized system ensures, on the one hand, a more unitary government, and homogeneous activity that competes, and on the other hand, it could avoid the risk of inefficiencies due to the presence of business large sized businesses.

However, some of the companies that did not resort to outsourcing tended to develop partnerships with companies outside the company, even without outsourcing the activity in question.

Nevertheless, the ability to ensure greater professionalism, a more pronounced flexibility or lower costs, especially to meet the difficulties faced by smaller sized companies, which determines that the internal auditing function organizes itself according to a decentralized model, entrusting it to specialised external consultants.

The choice of such a model, compared to that which provides defence within the corporate structure, obviously presents both positive and negative aspects (Reboa, 2007, pp. 27-28). The former are related to the availability of people with high skills, expertise, namely figures with features that are difficult to develop within medium-sized companies, such as the case of STAR segment companies.

To this, we can add a mind-set of greater independence from external professionals, generally belonging to international networks, compared to internal staff.

Conversely, the outsourced internal auditors are less rooted in the structure, have less understanding of the business, do not participate in the life of the organization and, inevitably, remain strangers to the information flows within the company.

In addition, a decentralized system, guarantor of greater flexibility and incisiveness, can bring about the risk that "non-insider" internal auditors, due to a less close connection with the top management, can be more subject to pressure from peripheral structures, seeing their own independence in danger.

Also from an economic standpoint, the outsourcing of these activities often involves a greater burden, in that for the same budget allocated to control activities audit activities are reduced compared to those attainable utilising internal solutions.

The following table summarizes the main advantages and disadvantages arising from the centralization or decentralization of the internal auditing department.

Table 6. Advantages and disadvantages of centralisation and decentralisation of internal auditing activities

	Advantages	*Disadvantages*
Centralisation	Unitary governing and homogenous development of internal auditing activities	Danger of internal structural rigidity and phenomena of bureaucratisation in the presence of large dimensions
Decentralisation	High degree of flexibility in interventions	Issues deriving from the lack of unity of direction and from the possibility of instrumentalization by peripheral functions, with damaging consequences on the auditor's independence

Source: own elaboration

Ultimately, whatever the organizational model, the internal auditing function will execute its task, above all in the presence of fruitful relationships with other control bodies and with all levels of the corporate structure (Regoliosi, 2009, pp. 249-250).**4.**

4. CONCLUSIONS

The present study sought to verify the organizational positioning of the internal auditing function within a group of companies, primarily because of the new legislation that has affected the world of corporate governance.

Considering that one of the greatest corporate bodies is always placed at the top of the internal auditing department, it is important to emphasize the connotations of lines of dependency when the summit in question is represented by a body with no operational authority, such as the board of directors as a whole or, on the contrary, by a body from the top management, such as the CEO.

The research carried out on the companies belonging to the STAR segment, highlighted, as the first element of the survey, that nearly all of the companies either created a dedicated function or outsourced the internal audit activity.

This result confirms the importance of the function in discussion, as an activity that generates additional value in order to evaluate processes of auditing, risk management and corporate governance.

The second point of that analysis sought to verify the hierarchical dependence on the function of internal auditing; it emerged that in the greater part of the companies, the function has a hierarchical dependence on the board of directors.

Such a solution has the aim of guaranteeing internal auditors the maximum degree of

independence possible, in that they depend on the maximum body of the top managements, with the objective of establishing goals and management guidelines, or rather the administrative body that has the last word on the entire government of the company.

The situation of independence is also ensured by the presence of the audit and risks committee, within the board of directors, which supports the governing body in choices through adequate instructions.

The model just explained, focused on the independence and freedom of action of internal auditing, may nevertheless present some drawbacks linked, above all, to the difficulties connected with the relationship with a supervisory body. In this regard, the biggest problems may relate to the timeliness and completeness of information that, when addressed to numerous interlocutors, may not always be entirely adequate. In fact, in most cases, it is possible to encounter obstacles related to any inhomogeneity of orientation between the various members of the administrative body, regarding decisions about control activities that often require rather rapid action times. Therefore, the audit and risk committee will have the task of facilitating coordination of the internal audit, ensuring the board of directors an appropriate examination of the issues regarding the internal control system and proposing solutions deemed to be the most appropriate (Cattaneo, 2007, p. 99).

Thus, the board of directors will have a greater and better possibility of rapidly detecting the absence of complex problems that are already managed.

Of course, it is important to stress that the committee has no power to issue orders directly to internal auditing but it may submit proposals to the board if it detects any anomalies in the internal control and risk management system.

The alternative model, instead, provides for a delegated and executive body, such as the CEO, as the last reference of internal auditing. In this case, internal auditing is more akin to other business activities, enabling better communication and simplification of tasks between the various business functions.

However, excessive proximity between executive and internal auditing can compromise the latter's position of autonomy and lead to conflicts of interest between the auditor and the audited.

In fact, even in the case studied, the choice to depend hierarchically on the delegated body is a less used alternative.

The third point analyzed by the research concerns the role of the internal audit manager who, as established by the Corporate Governance Code, replaces the person responsible for internal control in the internal control and risk management system.

In reference to the latter figure, the points analyzed regarded whether the manager of internal auditing has also been entrusted with the tasks and duties of the person in charge, and regarded the relationship between the head of internal auditing and other corporate control organs.

The analysis has shown that almost all the companies attributed the tasks and responsibilities of the person to the head of the internal auditing department, in relation to the current connection of the operating environments of the two figures and the strong synergies between the two roles.

As mentioned above, the legislative changes that revolutionized the field of corporate controls, such as Legislative Decree no. 231/2001 and Law No.262 /2005, have had a significant impact on internal auditing. In fact, they increased the workload of the function, especially in the medium sized companies that are forced to operate with limited human and financial resources.

For this reason, it is necessary to manage internal auditing activities in an integrated way, through close cooperation with other corporate governance supervisory bodies. In fact, on this point, the analysis showed that the head of internal auditing tends to relate to all components of the internal control system, but in particular, there is a commonality of the head of internal auditing with the control and risk committee and with the supervisory board. The collaboration is justified by the fact that the committee's task and, therefore its connection with company internal auditing, is functional to the efficiency of the board's operations. Likewise, the attributions of the supervisory board, which is also connected to the activity conducted by internal auditing, are even more connected to the attainment of a wider *ex post* efficiency, in that the board does not act in mere terms of control of legitimacy but also of merit (Cattaneo, 2007, pp. 98-99).

In medium-sized companies, in general, it is possible to appoint the head of the internal audit as a member of the supervisory body. Research has found that the head of internal auditing is found within the supervisory board of the majority of companies analysed.

This is a favored solution, both because it is an internal body of the company, and because it is believed that a composition consisting only of persons external to the company, would ignore the business reality in all its minimum details, with the consequence that the body would not be able to exert control in an efficient or in-depth manner.

Given the impossibility of tracing a model of corporate governance that optimizes the efficiency/independence ratio of internal auditing exactly, in order for the company to establish a well-articulated system of internal auditing, it is necessary to take account of its size.

For this reason, guaranteeing greater professionalism to the function in question may also arise through a decentralized model, entrusting the internal auditing function, either as a whole or in part, to specialised external consultants.

Furthermore, the results have shown a substantial selection of companies that do not externalise the function as a centralised government within the company can avoid the risk that an external subject, with a less close link with top management, could be more subject to pressure from peripheral structures, considering its own independence to be in danger (D'onza, 2013, pp. 65-67).

Internal auditing should, therefore, have its own organization that is able to interact with all operation and audit systems within the company, even in the case where it is not integrated in them and act as a stimulus in order that bodies and competent staff are activated in taking the necessary

measures and, thus, adopting the solutions deemed to be most appropriate.

The theme of corporate governance is complex and, at present, still widely the object of studies, analyses and discussion.

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