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Editorial

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Prof. Dileep Kumar, M., Ph. D.
Editor In Chief

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Information Management and Business Review (IMBR)
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The Changing Facets of Corporate Governance and Corporate Social Responsibilities in India and their Interrelationship

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Abstract: CG and CSR can be described as two sides of the same coin. Better governance leads the corporates to behave responsibly for the wellbeing of all the stakeholders. CSR is the medium through which corporates address the large group of stakeholders. Corporate Social Responsibility (CSR) moving far ahead from its age old domain of philanthropy and charity has now reached to a new hallmark of Corporate responsiveness and action to social issues and demand for sustainability in order to advance further towards a new era of collective future action for factoring the sustainable business strategy for good governance and development of the society and its people. The recent changing in the laws in India related to CSR and CG practices in India triggers this study to determine the relationship between them and also measure the influence of governance attributes on CSR practices of Indian corporates. The BSE SENSEX companies in India are the leaders in good governance practices and also the flag bearers in carrying out major CSR activities even when the CSR was not mandatory in India. The influence of corporate board attributes like Board Size, Board independent, Chairman-CEO duality, Female representative in corporate board, multiple directorships, and Promoter and directors shareholding on Corporate Social Responsibility measured through multiple regression analysis. The results revealed that chairman-CEO duality and the present of female directors in corporate board significantly influence of CSR contribution. Before generalization of the result of study further research could be undertaken taking a large group of Indian companies and wider corporate governance variables.

Keyword: *Corporate Governance, Corporate Social Responsibility, Interrelationship, Board of Directors, Board Attributes*

1. Introduction

Corporate Social Responsibility: Corporate social responsibility is not a new concept in India. However, what is new is the shift in focus from making profits to meeting societal challenges. Every business operates in an society and uses its environment and owes a responsibility towards improvement of healthy ecosystems, promoting social inclusiveness and equity, upholding ethical practices and good governance by means of preserving the environment, minimizing the wastage of natural resources, recycling of products, helping the needful and working for the larger interest of the society by promoting, education, healthcare, and livelihood etc. HR Bowen's 'Social Responsibilities of the Business' in 1953 is the first academic literature in India emphasized on CSR. Since then, there has been continuous debate and discussion on CSR and its purview worldwide but no universal definition of CSR evolved. The World Bank Group, defined CSR as , "Corporate Social responsibility is the commitment of business to contribute to sustainable economic development by working with employees, their families, the local community and society at large, to improve their lives in ways that are good for business and for development".

Corporate Social Responsibility (CSR) moving far ahead from its age old domain of philanthropy and charity has now reached to a new hallmark of Corporate responsiveness and action to social issues and demand for sustainability in order to advance further towards a new era of collective future action for factoring the sustainable business strategy for good governance and development of the society and its people. To ensure all round development and sustainable economic, environment and social growth and inclusiveness Government of India made it mandatory for all the corporates public as well as private to take up CSR initiative. India becomes first country in the world to mandate corporate social responsibility spending, through a statutory provision under clause 135 of companies Act, 2013. This applies to every company in India having a net worth of Rs. 500 Crore or more, a turnover of Rs. 1000 Crore or more or a net profit of Rs. 5 Crore or more during any financial year. This land mark legislation may provide a right direction in CSR spending of Indian corporates in coming years. The schedule VII of the new companies Act, 2013 also provided information about activities which may be included by companies in their Corporate Social Responsibility Policies.

Corporate governance: Corporate governance stands for Commitment to wellbeing and progress of all stakeholders. Companies that have followed the principles of corporate governance have consistently earned high returns increased their net worth and enhanced their shareholders wealth, dealt ethically with customers, government and business partners and maintained and updated their professional management culture, system and process and accomplished excellence. Given the complexity of today's organizations, there is no simple or straightforward task the boards need to perform. Today, board effectiveness is a key performance driver of the Indian companies. There is growing demand for more transparency in board decision. It was the securities and Exchange Board of India (SEBI) which regulates India's Stock Market, had initially mandated the adherence of clause 49 of corporate governance for all listed companies from April 1, 2004. Clause 49 is basically a regulation that calls for an increase in the number of independent directors serving on the boards of Indian companies to ensure more transparency and better accountability limited to only listed companies in India. However the recent overhaul in the corporate governance norms for all companies under the new companies Act, 2013 enacted on August 30, 2013 and the consequent amendment by Securities and exchange Board of India to Clauses 35B and 49 of the Equity Listing agreement dated April 17, 2014 triggers this study to determine the interrelationship of corporate governance on corporate social responsibilities practices of Indian companies.

Corporate governance and corporate responsibility Interrelationship: Corporate governance and corporate responsibility are intertwined. Corporate social responsibility (CSR) is now becoming much more a part of mainstream corporate governance as there is a recognition that a company cannot – in the long-term – operate in isolation from the wider society in which it operates. Sir Adrian Cadbury, 2002 remarked that: 'The broadest way of defining social responsibility is to say that the continued existence of companies is based on an implied agreement between business and society' and that 'the essence of the contract between society and business is that companies shall not pursue their immediate profit objectives at the expense of the longer-term interests of the community' The wider stakeholder community is also making increasing demands that board of governance be held accountable for the social and environmental impacts of their operations. The agency theory of corporate governance held directors accountable to shareholders whereas the stewardship theory of corporate governance expects from the board to consider the views of other stakeholders.

There is conflicting relationship between CG and CSR and depends upon how it has been defined. If we will look at micro view it concerns the relationship of company to its shareholders, and the goal of wealth maximization will come into play. Whereas if we will look at macro view the relationship of the company to extends to the society at large and satisfying the broad group of stakeholders include employees, customers, suppliers, local community, interest groups, government, . A careful analysis of the relationship shows that corporate governance covers a range of issues for the protection of the interest of shareholders and stakeholders. At the same time CSR can be regarded as extension of corporate governance Stewardship theory. However it can be conclude that CG and CSR are overlapping and it is highly difficult to make them separate. The corporates who have well-formed corporate governance program in place, probably taking care of most CSR issues and vice versa. In light of the recent overhauling and amendment in the laws related to corporate governance and Corporate Social responsibility practices in India, corporate governance is needed to incorporate and manage CSR in corporate policy, practices and reporting. The legal mandate for compulsory CSR spending will take CSR factors increasingly moving to board room for decision making. Driven largely by CSR business cases, good governance will come to include aspects of CSR. It will be interesting to see how the corporate boards are addressing the issue and making the CSR expenditure in the larger interest of society, environment and economic sustainability. The proposed study is designed to study the influence of corporate governance on CSR disclosure of selected Indian Companies.

2. Literature Review

The extensive study of Corporate Governance literature shows that board demography had linked with various aspects of organizational financial, social, environmental performance and its impact studied well.

The growing amount of contemporary research on board suggests that diversity among board members has the potential to increase board effectiveness and there by performance. The recent amendments in Corporate Governance codes under new Companies Act, 2013 in India and subsequent modification in Clause 49 and Clause 35B by SEBI (Securities Exchange Board of India) put the emphasis on composition of corporate board and larger representation by Independent directors. The companies with Executive Directors as Chairman than half of the board members should be independent directors and if the Non-executive directors are the chairman then at least one-third of the board member should constitute of Independent directors. The new corporate governance code also emphasis of having one of the directors should be female member. One of the pioneer studies in the area of Corporate Governance by Jensen & Meckling (1976) depicted that there is an agency relationship between owners, independent board members, and insiders, stock ownership can have a positive incentive effect to align the interests of both groups with shareholders. There are various other studies which identified the factors that impact the effectiveness of the board such as board size Klein 2002b; director attendance Allen (2004); number of board appointments (Young et al., 2003; Dunn & Sainty, 2004; Fich & Shivadasani, 2006). Having the firm's Chief Executive officer also serve as the Chairperson of the Board (called CEO/COB duality) can also compromise the independence of the board and the audit committee causing both mechanisms to be less effective (Farber, 2005). Literature also shows that board demography also linked with financial performance and found positive correlation between CG and firm performance.

The corporates which address the concern of larger group of stakeholders through their CSR program. In the recent past India one of the first country in world to make it mandatory on part of corporates to invest at least 2% of their annual profits towards the environmental sustainability, community development, health care programs for the society and environment in which they operates. The existing literature on the correlating the CSR with companies financial performance found that attributes like net profit, net worth and turnover, leverage, return on investment, return on equity are significantly related to the extent of corporate disclosure (Mishra Supriti & Damodar, 2010; Hosain & Reaz, 2007; Teoh & Shiu, 1990; Adamas et al., 1998; Purushotahman et al., 2000; Khilf & Soussi, 2010). Whereas review of other literature concluded that the relationship between these companies attributes and CSR disclosures are varies across industries and time period, may not have always a significant relationship (Gray et al., 1996; Suwaidan, 2004). The literature linked Corporate Governance to financial performance and CSR with financial performance, and it is the board of directors who are at the helm of corporate affairs has a major says on CSR policy through which they address the concern of larger group of stakeholders. The proposed study made a point to find the impact of corporate board attributes on CSR. There is a very few study in Indian context of linking CG with CSR; however we found most of the studies in foreign context. Gul and Leung (2004), Byard, Li & Weintrop (2006), and Htay et al. (2012); concluded that higher proportion of independent board has positive and significant impact to CSR disclosure.

Jamali et al. (2008) in their study of top managers of eight corporations operating Lebanon concluded that the majority of managers conceive CG as a necessary pillar for sustainable CSR. The corporate boards are increasingly seen as responsible for matter relating to CSR and sustainability (Ingley, 2008). The study by Kakabadse (2007) concluded that CSR is a critical items on boards agendas while Elkington (2006) remarked that board have major responsibilities in achieving CSR objectives but Yoshikawa and Phan (2003) gave an opposite view and argued that larger size of board is ineffective and will create ineffective coordination and communication less cohesive and more difficulties in coordination. MacMillan et al. (2004) concluded that in broader view corporate governance emphasize that every business is responsible towards the different stakeholders that provide it with the necessary resources for its survival, competitiveness, and success. In Regard to studies available on measuring the impact of corporate governance factors on CSR disclosure by firms, even though limited, research still suggests that board diversity to a certain extent can influence social and environmental aspects of the business. The literature shows that considerable amount CG influence on CSR in the study conducted by Ayuso and Argandona (2009), Dunn and Sainty (2009), and Huang 2010. In their study regard to board size and board independence Hurther (1997) concluded that smaller size of board and independence from management will result in a positive impact on the monitoring function. While studying the relationship between board diversity and environmental corporate social responsibility post et al. (2011); finds a positive relationship between certain board attributes and ECSR. Bear, Rahman & Post (2010) examined both the board resource diversity and women and their effect on firms CSR ratings and the result supported that the board with women are positively related to CSR and not related to resources diversity, in another study Ibrahim & Angelidies (2011); depicted that Board members gender have positive influence over the corporate social responsiveness. Fang, et al. (2010) in their study concluded that a firm with dynamic capabilities of relationship management can determine the effectiveness of alternative CSR strategies, in influencing organizational performance and Corporate governance and corporate social responsibilities functions of the board are complementary to each other in shaping the objective function of the organization (Beltratti, 2005).

However some literature shows that CG and CSR are independent of each other and found no significant relationship between board attributes to CSR disclosure (Meryawati, 2011; Lucyanda and Siagian, 2012). In an empirical study of the association between corporate governance and corporate social responsibility concluded that CSR measures do not affect CG, however a lagged measure of CG has a positive effect on CSR. In the same line another study by of 70 listed companies in Tehran Stock Exchange found that there is no significant relationship between the elements of corporate governance and social responsibility disclosure of Tehran companies. Mulyadi & Anwar (2012) in their study of Indonesian Corporations depicted that board independence and institutional ownership do not have significant influence to CSR disclosure. In light of the mixed result from the study of literature and recent overhauling in the laws related to Corporate Governance and corporate social responsibility in India, the proposed study makes an attempt to examine the influence of corporate governance on CSR practices of Indian companies.

Research Objectives:

- To Study the corporate board demography of selected Indian Companies.
- To examine the influence of corporate board attributes on CSR practices.

3. Methodology

In line of research objective an empirical study was carried out to examine the influence of corporate board attributes on CSR Practices of selected Indian Companies. The present study is exploratory in nature and is based on secondary data. The companies listed in the BSE SENSEX, as on 31st December, 2014 has been considered to examine the corporate governance practices and its possible influence over corporate social responsibility practices. Out of 30 companies finally 24 companies selected for the proposed study after excluding banking and financial companies. The companies selected under the study covers wide range of Indian industries including automobiles, pharmaceuticals, consumer goods, power, energy, oil and natural gas, Information technology, and service sector giving wider representation and blue chip companies in their respective industries. These companies regarded as best practitioner of corporate governance as well as CSR practices from decades even when both are not mandatory in nature under Indian law and that's the reason behind taking these top most companies to study the interrelationship between corporate governance and CSR practices. The annual report of all the companies downloaded from their respective website. The list of sample companies given in the Annexure1. The CSR disclosure practices of sample companies were measured by establishing the disclosure index and the same was constructed on the basis of items listed in amended schedule VII of the companies Act, 2013, published on 27th Feb, 2014. On the basis disclosure index, a scoring sheet was prepared to record the social responsibility disclosure practices by sample companies. If a company discloses an item of information included in the index, it receives a score of 1, and 0 if it is not disclosed. The CSR disclosure index given in the Annexure 2 at the end. To measure the influence of corporate governance on CSR practices 6 elements of corporate board characteristics were considered on the basis of literature review and latest amendments in corporate governance disclosure norms by the Govt. of India. Board characteristics are one of the important aspects of corporate governance. The following board characteristics are taken in to account for the proposed study.

Size of the Board (B-SIZE): It can be argued that a larger board is more likely to address agency problems because greater number of people will be reviewing management actions. So the Size of the Board taken as one of the demographic variable for this Study. This is measured as the number of directors in the company.

Independence of the Board (INDPB): Board's independence from internal and external influences is critical and directly proportional for effective corporate governance. The Agency theory also suggests that a greater proportion of outside directors will be able to monitor any self-interested action by managers and so will minimize the agency costs. So, the Independence of the Board is taken here as another board characteristics.

The Independence of Board is measured as the percentage of Independent directors over the total number of directors in the board.

Chairman-CEO Duality (CCDUAL): The agency theory says that the effectiveness of board monitoring may be reduced it the same person holds the Chief executive officers and chairman position, whereas the stewardship theory says that one person in both roles may improve firm performance because of better control over firm activities. Sol the CEO duality chosen to see its effect over firm performance as one of the attributes. This variable measured by assigning a value of 1 to a company if duality occurs and 0 other wise.

Directorship in more than one company (MDRP): The Independent directors generally accept the directorship in more than one board of different companies. It may lead to non-functioning and lead to division of time on more than one corporate affairs and may influence the firm performance. So, Directorship in more than one company taken as another board characteristic for this study. This is measured by assigning a value of 1 if at least one of the independence directors has at least two directorships outside the firm and 0 otherwise.

Table 1: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CSR Score	24	21	1	22	10.21	5.209	27.129	.723	.472	.426	.918
Board Size	24	16	6	22	12.54	3.788	14.346	.603	.472	.528	.918
Board Independence	24	91	0	91	55.38	23.633	558.505	-.990	.472	.990	.918
CEO Duality	24	1	0	1	.46	.509	.259	.179	.472	-2.156	.918
MDRP	24	1	0	1	.92	.282	.080	-3.220	.472	9.124	.918
FBR	24	1	0	1	.50	.511	.261	.000	.472	-2.190	.918
PDSH	24	90	0	90	49.54	21.996	483.824	-.299	.472	-.399	.918
Valid N (listwise)	24										

Female board representative (FBRP): The new companies Act, 2013 and the amendment of corporate governance norms by SEBI requires for at least one female director on the board to represent wider stakeholders perspective. While measuring the representation of female director, percentage of women directors was calculated as the sum of women directors on a given board divided by the total number of all directors on a given board.

Promoter & Director Shareholding (PDSH): There are substantial portion of share capital employment by promoter and promoter cum directors in the companies. This is taken as one of the important board attributes which may influence the firm performance. The data were collected and entered in Excel Spreadsheet for further analysis. Descriptive statistics, simple and multiple regression analysis was done through using SPSS (20) software to measure the influence of Corporate governance attributes on CSR practices.

Research Hypothesis:
H01: Corporate board attributes like BSIZE, INDPB, PDSH, CCDUAL, MDRP and FBRP does not significantly influence CSR practices.
H11: Corporate board attributes like BSIZE, INDPB, PDSH, CCDUAL, MDRP and FBRP significantly influences of CSR practices.

4. Data Analysis and Interpretation

With the aim to measure the influence of corporate governance attributes on corporate social responsibility practices of sample companies, descriptive statistics, and correlation and regression analysis carried out with the following results.

The above table represents the descriptive statistics for the different corporate board attributes drawn from 24 selected BSE Sensex companies. It can be seen from the above table that the average size of the board members is12.54, which represents the depth of board size in Indian companies, where as independent directors constitutes more than half of the board size i.e. 55.38. The greater the number of independent directors more transparency in governance can be expected from the corporate board. In term ownership from the board members the shard holding from promoter and directors constitutes 49.54%. The promoters on the basis of their large scale holding of share of their respective companies also enjoys the chairman and chief executive officer position, which is quite evident from the result. The board executive and non-executive directors have their presence in multiple board of different companies and the result show that almost 92% directors have multiple directorship in different companies. Except for INDPB, PDSH and MDRP, all other variables are skewed to the right when presented in a probability distribution function with asymmetric evidence. The skewness for FBRP shows symmetrical. On the other hand for all the variable except MDRP have pletykurtic probability distribution functions with kurtosis value less than 3.

Table 2: Pearson Correlation Analysis

	CSR	BSIZE	INDPB	CCDUAL	MDRP	FBRP	PDSH
CSR	1						
BSIZE	.267	1					
INDPB	.295	-.112	1				
CCDUAL	-.202	-.022	.253	1			
MDRP	-.017	.085	.090	.277	1		
FBRP	.646**	.214	.355*	0.84	-.302	1	
PDSH	-.162	.220	-.275	-.311	-.223	-.141	1

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

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

Table 3: Summary Results of Individual Regressions Analysis with CSR

Individual Regression Summary					
Variables	**Un-Std. Co-eff. B**	**Std. Error**	**Beta Co-efficient**	**t-stat**	**P-value**
(Constant)	5.598	3.695		1.515	.144
B.SIZE	.368	.283	.267	1.301	.207
(Constant)	6.613	2.695		2.454	.023
INDPB	.065	.045	.295	1.446	.162
(Constant)	11.154	1.447		7.710	.000
CCDUAL	-2.063	2.137	-.202	-.965	.345
(Constant)	10.500	3.765		2.789	.011
MDRP	-.318	3.933	-.017	-.081	.936
(Constant)	6.917	1.174		5.891	.000
FBRP	6.583	1.660	.646	3.965	**.001***
(Constant)	12.112	2.691		4.501	.000
PDSH	-.038	.050	-.162	-.772	.449

Note* statistically significant $\alpha = 0.01$

In line of result of the prior research on studying the relationship between various board attributes and CSR, our results confirmed the import relationship. There is a positive and significant correlation observed between FBRP and CSR practices. The earlier study by Bear, Rahman & Post (2010), Ibrahim & Angelidies (2011), and Fang et al. (2010) concluded that the female representative in board members have significant influence on CSR policies and practices of the companies. However it is important to note that the correlation between other corporate attributes shows negative or no correlation as given in the table. The mixed result from correlation analysis made us to investigate further the influence of corporate board attributes on CSR practices of sample companies and we had undertaken simple and multiple regression analysis. The CSR score was taken as dependent variable and corporate board attributes as representative of corporate governance like BSIZE, INDPB, CCDUAL, MDRP, FBRP and PDSH taken as independent variables.

The above table shows that there is a significant influence of (FBRP) female representative in the composition of Indian corporate boards on corporate social responsibility policy and practices. The recent amendment in the norms of corporate governance code and conducts and mandatory female nominee in the board of all Indian Companies is the right step in that regards. Whereas the other independent variables have no significant influence on CSR. Having the research objective to measure the influence of corporate governance on CSR policies and practices multiple regression analysis performed on the derived data using the CSR as dependent variable and BSIZE, INDPB, CCDUAL, MDRP, FBRP and PDSH independent variables to see the combined effect of these corporate board attributes as representative of corporate governance drivers.

Table 4: Summary of Multiple Regression Result with CSR as Dependent Variable

Regression Co-efficient

	Unstandardized Coefficients		**Standardized Coefficients**		
Variables	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.422	4.901		.494	.628
BSIZE	.194	.237	.141	.819	.424
INDPB	.026	.039	.117	.656	.521
CCDUAL	-4.005	1.739	-.391	-2.302	.034*
MDRP	4.370	3.376	.237	1.294	.213
FBR	6.718	1.966	.659	3.416	.003**
PDSH	-.032	.042	-.137	-.775	.449

a. Dependent Variable: CSR Score
b. Predictors: (Constant), PDSH, FBR, CEO Duality, Board Size, Board Independence, MDRP
C. R Squared: 0.594 and Adjusted R-Squared = 0.451
d. *statistically significant at $\alpha = 0.05$. ** Statistically significant at $\alpha = 0.01$

The above table shows that more than half i.e. 59.4 % changes in the CSR policy and practices can be explained by the variation in the independent variables. When adjusted for degree of freedom, the variation in the board attributes can explain 45% of the changes in CSR policy and practices. This shows a strong influence of governance factors on corporate social responsibility programs, policies and practices carried out by the firms addressing the larger group of stakeholders. The Gender diversity in the board as well as the chairman and chief executive officer duality have significant influence over CSR , whereas the other board attributes like board size, board independence, multiple directorship and promoter and directors shareholding have no influence on various CSR activities taken out by the sample firms. The null hypothesis is rejected for two independent variables i.e. FBRP and CCDUAL which significantly influence the CSR practices, whereas null hypothesis accepted and alternate hypothesis rejected for other variables i.e. BSIZE, INDPB, MDRP and PDSH. Our results are in the line earlier study conducted by Bear, Rahman & Post (2010); who has examined both the board resource diversity and women and their effect on firms CSR ratings and the result supported that the board with women are positively related to CSR. The results of existing literature also show diverse outcomes. The studies carried out by Ayuso and Argandona (2009), Dunn and Sainty (2009), Huang (2010), Hurther (1997), Post et al. (2011), Angelidies (2011), Fang, et al. (2010), and Beltratti (2005) concluded that board attributes significantly influence the CSR disclosures, whereas studies carried out by

Mulyadi & Anwar (2012) in their study of Indonesian Corporations depicted that board independence and institutional ownership do not have significant influence to CSR disclosure. Earlier studies by Meryawati (2011), Lucyanda and Siagian (2012) shows that CG and CSR are independent of each other and found no significant relationship between board attributes to CSR disclosure.

5. Conclusion

The study was proposed with an objective to study the interrelationship between CG and CSR and also the influence corporate governance on CSR disclosure practices in Indian Context. In the process of data collection it was observed that most of the companies are still not complying with corporate governance code and conducts in its true sense and the information like director's profile, director's shareholding, the family or other relationship between the board members if any are not disclosed by all. As per latest guidelines of SEBI and new Companies Act, 2013 every company should have female member as board representative however only half of the sample companies has female member as board representative. The Directors of a company should have multiple directorship in maximum of 10 other companies however it was observed that the same was not strictly followed. Though we found significant influence of two corporate board attributes board gender diversity i.e. female board representative and chairman and CEO duality, however CSR is always board driven, and it is the responsibilities of the board to cater various expectations of wider group of shareholders. A company without proper control mechanism, well established organization structure, cohesive leadership and fair governance practices cannot pursue CSR in its true sense, though it has made mandatory under law. In fact the mandatory CSR norms in India will give more edge to the corporate governance practices and compel the firms to cater the needs of the society at large, apart from internal stakeholders. The statutory changes in CG and CSR norms in India are at infant stage and it required some times before review of CG and CSR interrelationship and influence of one another. However it can be conclude that CG and CSR are overlapping and it is highly difficult to make them separate. The corporates who have well-formed corporate governance program in place, probably taking care of most CSR issues and vice versa.

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Annexures

1. List of Sample Companies

S/N	Name of Companies
1	Bajaj Auto Ltd.
2	Bharat Heavy Electricals Ltd.
3	Bharati Airtel Ltd.
4	Cipla Ltd.
5	Coal India Ltd.
6	Dr. Reddy's Laboratories Ltd.
7	GAIL(India) Ltd.
8	Hero Motocorp Ltd.
9	Hindalco Industries Ltd.
10	Hindustan Unilever Ltd.
11	ITC Ltd.
12	Infosys Ltd.
13	Larsen & Turbo Ltd.
14	Mahindra & Mahindra Ltd.
15	NTPC Ltd.
16	Oil & Natural Gas Corporation Ltd.
17	Reliance Industries Ltd.
18	SesaSterlite Ltd.
19	Sun Pharmaceutical Industries Ltd.
20	Tata Consultancy Services Ltd.
21	Tata Motor Ltd.
22	Tata Power Company Ltd.
23	Tata Steel Ltd.
24	Wipro

2. CSR Disclosure Index

SL. NO	Particulars/ Company
A	**Humanity, Eradication of poverty, Free meals**
1	Food relief foundation
2	Free distribution of meals programs
3	Contribution to NGO for Mid-day meal programs
B	**Health Care Programs**
1	Preventive health care and Health Care education programs
2	Sanitation Programs
3	provision of safe drinking water
4	Combating human immunodeficiency, HIV/AIDS/Cancer
5	Support and training to medical staff for excellence
6	Free Medical Camps/Mobile Medical Van
7	Free Distribution of Medicines and other medical care
8	Reducing Child mortality/improving maternal health
C	**Primary Education & Vocational Training**
1	Promotion/facilitator for primary education to marginalized and vulnerable communities

2	Skill enhancement programs
3	Adult literacy programs
4	University/College/School Alliances
5	Academic Industry Interface Programs
6	Funds given for technology incubators/Scholarship to meritorious students
7	Construction /Renovation of School/College Building
D	**Community Development**
1	Promoting gender equality
2	empowering women
3	Setting up of homes and hostels, orphanage, Day care
4	Benefit of armed forces veterans, war widows & their dependents
5	Social schemes for senior Citizens
E	**Environment Sustainability**
1	Protection of Flora and fauna
2	Animal welfare
3	Agro forestry
4	Pollution decrease
5	Water conservation/purification
6	Go green projects
F	**Rural development Projects & Others**
1	Agricultural Developments
2	Rural Non-farm employment
3	Rural Industries and Micro-Finance
4	support for Government initiated rural development programs
G	**Promotion of Sports, Arts & Culture**
1	Protection of national heritage, art and Culture
2	Restoration of building and sites of historical importance
3	Setting up of public libraries
4	Promotion and development of traditional arts & handicrafts
5	Promotion of rural sports
6	Contribution towards promotion of National/Olympic/Para-Olympic Sports
H	**Contribution to Different funds**
1	Prime Minister's National Relief fund
2	Fund for socio-economic development
3	Relief Fund
4	SC/ST/backwards classes welfare fund

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Impaired Financing Determinants of Islamic Banks in Malaysia

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Abstract: Despite commendable growth of Islamic banking on a macro level, impaired financing is an issue among Islamic banks at the micro level. The 2008 Global Financial Crisis shows large credit risk was largely attributable to staff inefficiency. This study investigates the moderating effect of staff efficiency on determinants of credit risk or impaired financing of sixteen Islamic banks in Malaysia over the 2005-2013 periods. The determinants include new variables such as political stability index and corruption index besides GDP, inflation, finance to deposit, loan loss provisions, liquidity, capital, net interest margin, profitability, loan growth and net charge offs. The study highlights new findings where impaired financing reduced with higher political stability index and corruption index. Loan loss provision has significant positive whilst loan growth has negative impact on impaired financing. Staff efficiency significantly moderates the impaired financing relationship with capital ratio, profitability and loan growth. This relationship yields model fit of 0.889. The results support Resourced - based Theory and provide statistical evidence of the importance of staff efficiency in managing banks' credit risk. None of the external factors had significant influence on impaired financing, which statistically proved that the profit and loss sharing concept of Islamic banking provides effective tool to mitigate external risks.

Keywords: *Impaired financing, Islamic banks, macro level*

1. Introduction

According to Ahmed (2009), the global financial crisis (GFC) that began around 2006, caused several countries like Greece, Portugal, Ireland and Spain into bankruptcy. Laeven and Valencia (2008) highlighted that GFC had caused many banks to face high credit risk due to over leveraging and speculative activities in mortgage markets. The GFC did not only destroy many mega banking institutions such as Northern Rock, Bear Stearns, Indy Mac Bank and Washington Mutual, but also caused misery to millions of American and European society (Ahmed, 2009). They found that non-performing loans or impaired financing caused 124 systematic banking crises over the period of 1970 to 2007. Impaired financing leads to formation of credit risk. Credit risk reduces asset quality (Rose, 2002). The central bank of Malaysia defines impaired financing when principal or interest payment is three months or more in arrears (BNM, 2012). The consequences of impaired financing on bank are reductions in their profits or at times, lead to losses. As such, a bank managing their impaired financing from getting higher is a continuous challenging task. Ahmad and Ahmad (2004) study on the key factors influencing credit risk of Malaysian Islamic banks found out that Islamic banking credit risk remains relatively high despite the risk sharing between the bank and the clients. The factors studied are management efficiency, risky sector financings, property financings, capital to total assets, loan loss provision, funding cost, risk-weighted assets, and natural log of total asset and financing to deposit. In this study, the effects of four new variables such as political stability index, corruption control index, net charged off and staff efficiency on impaired financing of Islamic banks intend to fill the gap in Ahmad and Ahmad (2004).

Problem Statement: Chapra (2008) highlighted that Islamic banking system despite being acceptable as a better intermediation channel could not escape from incurring high impaired financing. Table 1 shows the average impaired financing albeit credit risk of Malaysian Islamic banks over 2005 to 2013 periods. This phenomenon indicates that there are still pertinent new factors that need to be examined besides those covered in past studies (BNM, 2013). Among the new factors, human resource efficiency is the most vexing managerial issue in Islamic finance system where lack of skills, knowledge and incompetence workforce will lead to higher operational and credit risks which stifle the Islamic banks' growth potential (Mohd-Sultan, 2008). The study provides fresh suggestion that the deterioration in financing quality of Islamic banks might have occurred due to lack of staff efficiency in terms of their credit assessment, apart from the influence of macro-economic factors. Meanwhile, Abd-Karim, Chan and Hassan (2010) highlighted that higher impaired financing or credit risk reduces cost efficiency and lead to inefficiencies in the banking sector.

Table 1: Impaired Financing of Islamic banks in Malaysia

BANK	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)	2008 (%)	2007 (%)	2006 (%)	2005 (%)	Average (%)
Bank Islam	1.18	1.55	2.61	4.50	12.70	18.60	22.30	22.57	19.95	11.77
Bank Muamalat	2.54	4.79	5.04	7.30	9.46	9.15	10.40	6.60	6.78	6.89
RHB Islamic	2.31	2.52	4.16	6.95	6.19	4.83	6.03	5.66	5.98	4.96
CIMB Islamic	0.87	0.91	1.21	1.48	1.47	3.28	11.60	12.85	1.50	3.91
Maybank Islamic	0.60	0.84	1.55	2.69	3.97	5.07	n.a.	n.a.	n.a.	2.45
Kuwait Fin House	10.6	15.60	23.20	12.00	11.80	0.91	0.07	0.49	0.28	8.34
Affin Islamic	2.15	2.49	3.86	4.19	2.05	1.61	1.73	2.75	n.a.	2.60
Am Islamic	1.19	1.37	2.33	1.52	2.38	3.69	7.12	n.a.	n.a.	2.80
Alliance Islamic	1.87	1.53	1.51	1.33	2.41	2.89	n.a.	n.a.	n.a.	1.92
HongLeong	1.50	1.79	0.73	0.86	1.18	1.06	1.63	1.88	n.a.	1.33
Public Islamic	0.90	0.86	0.89	0.98	0.92	1.16	n.a.	n.a.	n.a.	0.95
Asian Finance	2.14	3.81	5.16	6.91	0.29	0.77	0.53	n.a.	n.a.	2.80
Al Rajhi Bank	2.06	2.39	3.76	4.57	1.01	0.54	0.16	0.35	n.a.	1.86
OCBC Al-Amin	1.56	1.26	1.46	1.78	2.45	2.00	n.a.	n.a.	n.a.	1.75
StandChart Saadiq	0.79	0.84	0.63	0.94	0.72	0.67	n.a.	n.a.	n.a.	0.76
HSBC Amanah	1.79	1.49	1.59	1.49	1.71	0.95	n.a.	n.a.	n.a.	1.50

Source: Bankscope Sept, 2014.

Credit risk can also be due to staff inefficiency in handling credit management process, either in financing processing, documentation or monitoring process. Moral hazard and agency problem have been shown from previous studies to affect bank credit risk. However, little attention was given to staff efficiency in previous studies. A survey of the past literature only shows efficiency and cost efficiency relationship by Abd-Karim et al. (2010). This gap in the literature motivates the present study to focus on staff efficiency as a moderator in determining factors influencing impaired financing of Islamic banks in Malaysia. This new approach will highlight the inclusion of new macro-socio variables, such as political stability index and corruption control index. Malaysia is selected because it is the biggest hub of Islamic banks (Sufian, Mohamad Noor & Majid, 2008). The objective of this study is to share the findings on the determinants of impaired financing with the moderating effect of staff efficiency have significantly affected the Islamic bank in the way statistically and economically significant.

Research Question

- How do external factors (gross domestic products, inflation, political stability index and corruption control index) influence the level of impaired financing among Islamic banks in Malaysia?
- What are the effects of internal factors (financing to deposit ratio, loan loss provision, liquidity ratio, capital ratio, net interest margin, profitability, loan growth and net charged off) towards the level of impaired financing among Islamic banks in Malaysia?
- Are the effects of the internal factors on impaired financing among Islamic banks in Malaysia is moderated by staff efficiency?

Significance of the Study: This study is a much needed attempt to present a comprehensive analysis of impaired financing determinants in Islamic banks involves the identification of external factors and internal factors which are associated with increases in impaired financing of Islamic bank. The effect of staff efficiency as a moderator between internal factors and impaired financing would also position the Islamic banking to cater to human resource competencies as an important tool to reduce impaired financing. This is a new dimension from the financial factor analysis aspect.

2. Literature Review

Khan and Ahmed (2001) revealed that one of the challenges in Islamic banking is credit risk. This risk will occur when customers fail to meet their financing obligation fully in stipulated period which is associated with the financing default. Table 2 below, shows several factors contributing to impaired financing (IF).

Table 2: Summaries of Literature Review

Author	Variables	Relationship (+ve/-ve)	Impact
External Factors			
Skarica(2014);Ahmed(2009); Guy & Lowe(2012) & Kouser & Azeem(2012)	Gross Domestic Products(GDP)	-ve	Significant
Skarica(2014); Senawi & Mat Isa(2014) & Nkusu(2011)	Inflation(INF)	+ve	Significant
Boudriga, Taktak & Jellouli(2008)	Political Stability Index(PSI)	-ve	Insignificant
Boudriga, Taktak & Jellouli(2008)	Corruption Control Index(CCI)	-ve	Insignificant
Internal Factors			
Ahmad(2007)	Finance to Deposit Ratio(FD)	+ve	Significant
Messai & Jouini(2013) & Ahmad(2007)	Loan Loss Provision(LLP)	+ve	Significant
Iqbal(2012)	Liquidity Ratio(LIQR)	-ve	Significant
Ezeoha(2011)	Capital(CAP)	-ve	Significant
Roy(2014)	Net Interest Margin(NIM)	+ve	Insignificant
Azeem & Amara(2014); Ezeoha(2011) & Messai & Jouini(2013)	Profitability(PROFIT)	-ve	Significant
Khemraj & Pasha(2009)	Loan Growth(LGROW)	-ve	Significant
Bhat, Lee & Ryan(2013)	Net Charge Off(NCOFF)	-ve	Significant
Moderator			
Mat Rahim et al. (2012) & Abd Karim et al. (2010)	Staff Efficiency(STAFFX)	-ve	Significant

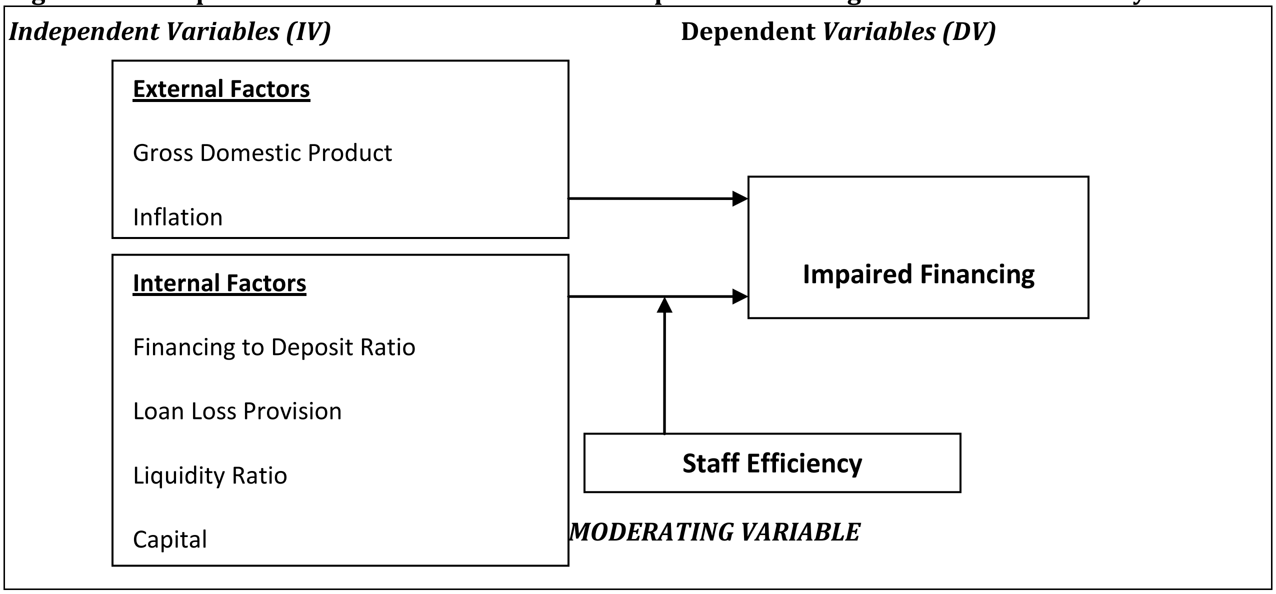
Related Theories to the Study: Resource-based theory explains that success in competition for the organization is based on internal and external resources owned by the organization. Staffs which are internal resource are assets to the banks and their efficiency and productivity will lead to the success of the bank. This theory postulates that when employees are highly competent and knowledgeable, they are more able to contribute towards bank efficiency, generate revenues and profit. Another related theory is theory of financial intermediation. The Islamic banking system is not only intermediaries but also an entrepreneur to manage the capital provided by the investor or capital provider. Any profit generated from the capital is shared between the capital provided and entrepreneur according to mutually agreed profit sharing ratio. This dual roles played by Islamic bank is different from conventional bank which only acts as an intermediaries. Islam is very concerned about credibility and sincerity of the staff in discharging their daily duties assigned. This was revealed in Al-Quran:
"O believers! Do not betray the trust of Allah and His Rasool, nor violate your trust knowingly" (Al-Anfal: 27).

Efficient and outstanding employees should have the integrity, potential to think, strategize, implement and achieve the level of success in discharging their duties in seeking the blessings of Allah. Staff with high credibility and efficiency would contribute to the lower default account and impaired financing to the banks.

3. Methodology

The research theoretical framework for this research inclusion of dependent variable, independent variable and moderating variable is as illustrated in Figure 1 below.

Figure 1: Conceptual Framework of Islamic Banks Impaired Financing Determinants in Malaysia



Hypotheses Development

- GDP, PSI and CCI are negatively related to IF of Islamic banks in Malaysia.
- INF has positive relationship with IF of Islamic banks in Malaysia.
- FD, LLP and NIM and NCOFF have positive relationship with IF of Islamic banks in Malaysia.
- LIQR, CAP, PROFIT and LGROW have relationship with IF of Islamic banks in Malaysia.
- Staff efficiency moderates the relationship between internal factors (FD, LLP, LIQR, CAP, NIM, PROFIT, LGROW & NCOFF) with IF of Islamic banks in Malaysia.

Multiple Regression Models (Before inclusion of moderating variable)

(i) On a pool basis.

$$IF_{it} = \alpha 0 + \beta 1GDP_{it} + \beta 2INF_{it} + \beta 3PSI_{it} + \beta 4CCI_{it} + \beta 5FD_{it} + \beta 6LLP_{it} + \beta 7LIQR_{it} + \beta 8CAP_{it} + \beta 9NIM_{it} + \beta 10PROFIT_{it} + \beta 11LGROW_{it} + \beta 12NCOFF_{it} + e_{it} \quad (1)$$

(ii) On external basis.

$$IF_{it} = \alpha 0 + \beta 1GDP_{it} + \beta 2INF_{it} + \beta 3PSI_{it} + \beta 4CCI_{it} + e_{it} \quad (2)$$

(iii) On internal basis

$$IF_{it} = \alpha 0 + \beta 1FD_{it} + \beta 2LLP_{it} + \beta 3LIQR_{it} + \beta 4CAP_{it} + \beta 5NIM_{it} + \beta 6PROFIT_{it} + \beta 7LGROW_{it} + \beta 8NCOFF_{it} + e_{it} \quad (3)$$

Where,

α = constant
i = bank
t = time period
e_{it} = Error term of bank i on time t

Hierarchical Moderated Multiple Regression Model (With moderating variable): The equation with the moderating and interaction variables is:

$$IF_{it} = \alpha 0 + \beta 1FD_{it} + \beta 2LLP_{it} + \beta 3LIQR_{it} + \beta 4CAP_{it} + \beta 5NIM_{it} + \beta 6PROFIT_{it} + \beta 7LGROW_{it} + \beta 8NCOFF_{it} + \beta 9STAFFX_{it} + \beta 10FD_{it}*STAFFX_{it} + \beta 11LLP_{it}*STAFFX_{it} + 12LIQR_{it}*STAFFX_{it} + \beta 13CAP_{it}*STAFFX_{it} + \beta 14NIM_{it}*STAFFX_{it} + \beta 15PROFIT_{it}*STAFFX_{it} + \beta 16LGROW_{it}*STAFFX_{it} + \beta 17NCOFF_{it}*STAFFX_{it} + e_{it} \quad (4)$$

Where: α = constant; i = bank
t = time period; eit = Error term of bank i on time t
Moderating variable: STAFFX = staff efficiency

Data Collection: This study used secondary data over 2005 – 2013 periods. The sources of the data for external factors were obtained from Regional Economic Outlook. For internal and moderating factors, the data comprising financial ratios were obtained from annual reports of 16 Malaysians' Islamic banks published in bank scope database. Political stability index and corruption control index which are the new variables to be tested were extracted from World Governance Indicator Reports (Wgidataset.com).

4. Results

Diagnostic test result of the homoscedasticity test, auto-correlation test and penal data test is conducted and the result is presented in Table 4 below:

Table 4: Diagnostic Test for Malaysian Data

Test	(Prob > F)
Homoscedasticity/Heteroscedasticity Test	0.0005**
Auto-correlation Test	0.0003**
Panel Data Test(Hausman Test)	0.0000**

Note: *p<0.05, **p<0.01

The Breusch-Pagan test is used to detect the existence of heteroscedasticity in the model. The result in Table 4 shows that this model for Malaysia is found to be significant at p<0.01.The result rejected the null hypothesis and concluded that the presence heteroscedasticity in our model of Islamic bank in Malaysia. Gujarati and Porter (2010) suggested that a Lagram-Multiplier test is most suitable for serial correlation and to detect first-order autocorrelation. The multiple regression analysis is performed to examine the relationship between independent variables and impaired financing. The result of multiple regression tests are presented in Table 5.

Table 5: External and Internal Factors on Impaired Financing (IF) of Islamic Banks in Malaysia

Variable	Expected signs	Beta Coefficient	*t*-statistics	*p*-value
GDP	-	0.2698	1.8625	0.0667
INF	+	-0.1980	-1.8058	0.0752
PSI	-	-0.1328	-1.4334	0.1562
CCI	-	-0.1296	-1.4468	0.1524
FD	+	0.0037	0.7716	0.4429
LLP	+	0.0215	2.8267	0.0061**
LIQR	-	-0.0185	-0.8791	0.3823
CAP	-	-0.0139	-0.3405	0.7345
NIM	+	0.2354	1.6823	0.0970
PROFIT	-	-0.0368	-1.3649	0.1767
LGROW	-	-0.0178	-2.7600	0.0074**
NCOFF	+	0.0245	0.4209	0.6751
R^2	0.8396			
Adjusted R^2	0.7754			
F-Statistics	13.0886			
Sig F-Statistics	0.0000			
N	115			

Note: *p<0.05, **p<0.01

The F-statistic that explains the overall significance of the model is found to be significant at 0.000 level with R square (R^2) of 0.8396 and adjusted R-squared of 0.7754. It shows that the regression model consisting of GDP, INF, PSI, CCI, FD, LLP, LIQR, CAP, NIM PROFIT, LGROW and NCOFF could explain 77.54 percent in IF. Further, the predictors from external variables found to be insignificant such as, gross domestic product (GDP), inflation (INF), political stability index (PSI) and corruption control index (CCI). Meanwhile there are two significant internal variables such as, loan loss provision (LLP) and loan growth (LGROW) which support the hypotheses. Other predictors such as, finance to deposit (FD), liquidity (LIQR), capital (CAP), net interest margin (NIM), profitability (PROFIT) and net charged off (NCOFF) have no impact on impaired financing (IF) of Islamic bank in Malaysia at 0.05. The coefficient estimation of LLP is 0.0215 with t-value of 2.8267 ($p < 0.01$). This result indicates that a 0.0215 point increase in LLP, result in an increase of 1 point increase in IF of Islamic bank in Malaysia. The coefficient estimation of LGROW is -0.0178 with t-value of -2.7600 ($p < 0.01$). This result indicates that a 0.0178 point decrease in LGROW, will result in an increase of 1 point in IF of Islamic bank in Malaysia. Although the result is not significant, the negative relationship between LGROW and IF appears to suggest that increase in LGROW reduces IF.

Result and Discussion on the Moderating Effects of Staff Efficiency on the Relationship between Internal Factors and Impaired Financing: Table 6 presents the result of hierarchical multiple regressions on the moderating effects of STAFFX on the relationship between internal factors (FD, LLP, LIQR, CAP, NIM, PROFIT, LGROW & NCOFF) and impaired financing (IF) of Islamic banks in Malaysia. The result is based on Model 1, Model and Model 3.

Table 6: The Moderating Effects of STAFFX on Internal Factors and IF for Islamic Banks in Malaysia

Variable	Model 1		Model 2			Model 3
	β	p-value	β	p-value	β	p-value
FD	0.0036	0.5337	0.0019	0.5550	0.0023	0.1355
LLP	0.0189	0.0104**	0.0217	0.0016**	-0.0070	0.6049
LIQR	-0.0158	0.3155	-0.0102	0.5809	-0.0033	0.8574
CAP	-0.0116	0.7437	-0.0970	0.0465*	-0.0399	0.3719
NIM	0.3077	0.0010**	0.2244	0.0002**	0.1179	0.0252*
PROFIT	-0.0350	0.2100	-0.0883	0.0026**	0.0293	0.4928
LGROW	-0.0157	0.0186*	-0.0161	0.0114**	-0.0037	0.6121
NCOFF	0.0045	0.9241	0.0712	0.4503	0.1023	0.2366
STAFFX			-0.0620	0.0003**	0.0530	0.1403
FDSTAFFX					0.0002	0.8362
LLPSTAFFX					0.0007	0.0215*
LIQRSTAFFX					-0.0003	0.8206
CAPSTAFFX					-0.0079	0.0000**
NIMSTAFFX					0.0053	0.0977
PROFITSTAFFX					-0.0045	0.0000**
LGROWSTAFFX					-0.0005	0.0000**
NCOFFSTAFFX					-0.0012	0.7960
R^2	0.8202		0.8593		0.8889	
Adjusted R^2	0.7619		0.8111		0.8325	
R^2 Change			0.0391		0.0296	
Sig F-Statistics	0.0000		0.0000		0.0000	
F-Statistics	14.0685		17.8366		15.7615	

Note: *$p<0.05$, **$p<0.01$

Model 1: In model 1, internal variables (FD, LLP, LIQR, CAP, NIM PROFIT, LGROW and NCOFF) are found to be significant at 0.000 levels with adjusted R^2 of 0.7619. There are three predictors, which are significant, LLP (β=0.0189, t=2.6283, $p<0.01$), NIM (β=0.3077,t=3.4160 $p<0.01$) and LGROW (β= -0.0157,t=-2.4057, $p<0.05$). Other predictors such as, FD, LIQR, CAP, PROFIT and NCOFF have no impact on IF of Islamic banks in Malaysia.

Model 2: In model 2, the moderating variable namely staff efficiency (STAFFX) is included. The result presented in the Table 6 shows that this model was found out to be significant at the 0.000 level with adjusted R^2 of 0.8111. There are six predictors found to be significant, LLP (β=0.0217, t=3.2818 $p<0.01$), CAP (β=-0.0970, t=-2.0250, $p<0.01$), NIM (β=0.2244,t=3.9782, $p<0.01$), PROFIT (β=-0.0883,t=-3.1164, $p<0.01$), LGROW (β= -0.0161, t=-2.5957, $p<0.01$) and STAFFX (β= -0.0620, t=-3.8319, $p<0.01$). Other predictors such as, FD, LIQR and NCOFF are insignificant.

Model 3: Model 3 shows the result of the interaction variables (FD, LLP, LIQR, CAP, NIM, PROFIT, LGROW, NCOFF, STAFFX, FD*STAFFX, LLP*STAFFX, LIQR*STAFFX, CAP*STAFFX, NIM*STAFFX, PROFIT*STAFFX, LQROW*STAFFX & NCOFF*STAFFX) which is to test the moderating effect of staff efficiency on IF of Islamic banks. The result presented in the Table 6 shows that this model 3 to be significant at the 0.000 level with adjusted R^2 of 0.8325. The model could explain 83.25 percent in IF. There were only four interaction variables significant such as LLP*STAFFX, CAP*STAFFX, PROFIT*STAFFX and LGROW*STAFFX.

The significant relationship of staff efficiency as a moderator is depicted in Figure 2, 3, 4 and 5 below:

Figure 2: LLP*STAFFX and IF

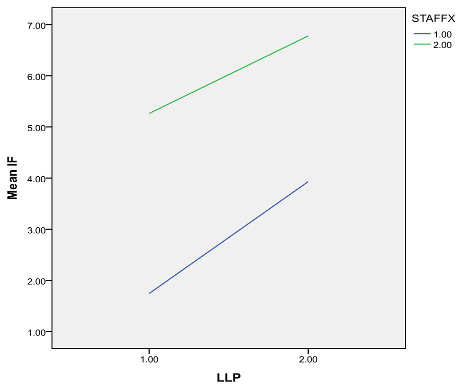


Figure 3: CAP*STAFFX and IF

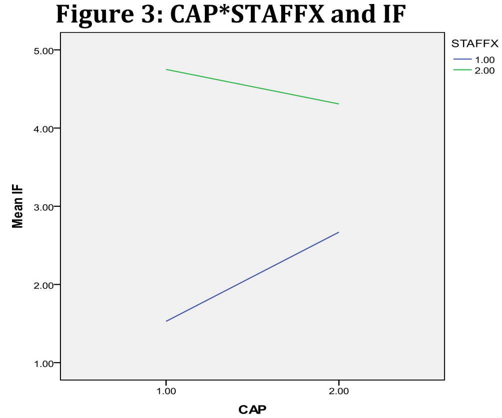


Figure 4: PROFIT*STAFFX and IF

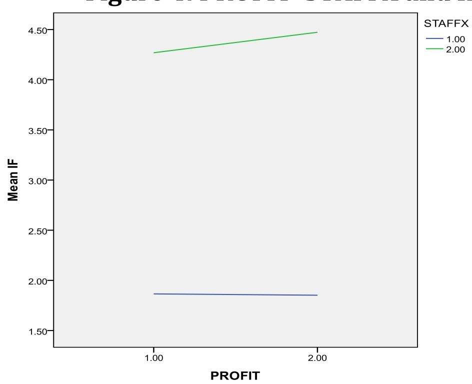
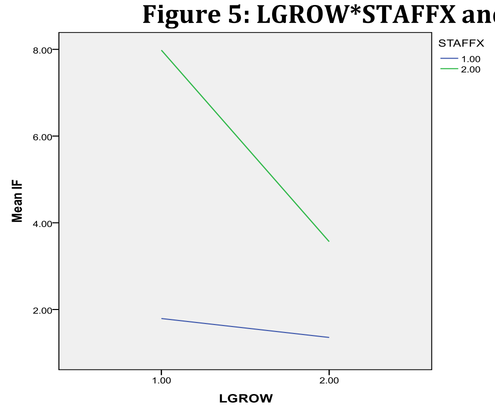


Figure 5: LGROW*STAFFX and IF



5. Conclusion

This paper concludes the result that external factors such as GDP, inflation, political stability index and corruption control index were not significant in influencing impaired financing of Islamic banks in Malaysia. Meanwhile, only loan loss provision and loan growth were the determinants of impaired financing of Islamic banks in Malaysia. On the other hand, it is found that staff efficiency moderate negatively and significantly the impact of loan loss provision, capital, profitability and loan growth. These result imply that the higher in the staff efficiency in their work, the lower in the impaired financing. In other words, staff efficiency in allocating loan loss provision and managing capital would contribute significantly to reduction in impaired financing of Islamic banks. Reduction in impaired financing could also be achieved when staff is efficient in assessing, selecting, monitoring and controlling the expended loan portfolio or loan growth. In contrast, the negative significant impact of staff efficiency and profit on impaired financing of Islamic banks appears to suggest that staff efficiency is crucial to reduce impaired financing which consequently result in higher profit.

Contribution of the Study: This study provides empirical evidence that Islamic banks with their profit and loss and risk sharing concept are not extremely affected by macro-economic factors. This finding is in contrast to the result of Hasan and Lehar (2009); Ahmad (2003) and Ranjan and Dhal (2003) which found that macro-economic factors such as GDP and inflation are significantly influence impaired financing of the conventional banks. Another new contribution is the moderation effect of staff efficiency, which has not been analyzed before. The high significant level (0.01) of the impact of staff efficiency on reducing impaired financing suggested clearly that banks' management should give equal emphasis on increasing the level of staff efficiency besides looking at the financial factors in mitigating credit risk.

Suggestion for Future Research: There is a lot more related field that can be studied for the future research in the Islamic banks system. Impaired financing of Islamic banks remain an important issue in financing activities of Islamic banks. In order to remain equally competitive to their conventional counterparts, Islamic banks should continue to emphasize on impaired financing management and risks management. Hence, future studies are recommended to include robust model which include customers' behavior towards financing preference. A cross-country comparison on impaired financing of Islamic banks especially focusing on Islamic economic blocks such as in OIC countries, GCC and emerging market is highly needed to contribute to the scant literature on Islamic banking studies.

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Appendix 1

Operational Definition and Measurement

Variables	Operational Definition/Measurement	Source
Impaired Financing (IF)	$\frac{\text{Non-Current Financing}}{\text{Total Financing}}$	Rose (2002) & Ahmad (2003)
Gross Domestic Product (GDP)	Based on aggregate of economic activity	Hasan and Lehar (2009) & World Bank (2014)
Inflation (INF)	Consumer price index	Ben Ameur and Mhiri, (2013) & World Bank (2014)
Political Stability Index (PSI)	Based on ranking ranges from 0 (low political stability) to 100 (high political stability).	Kaufmann, Kraay& Mastruzzi (2010) & World Bank (2014)
Corruption Control Index (CCI)	Based on ranking ranges from 0 (high corruption) to 100 (highly clean from corruption).	Kaufmann, Kraay & Mastruzzi (2010) & World Bank (2014)
Financing to Deposit Ratio (FD)	$\frac{\text{Total Financing}}{\text{Total Deposit}}$	Ahmad (2003) & Bankscope
Loan Loss Provision (LLP)	$\frac{\text{Loan Loss Provision}}{\text{Net Interest Revenue}}$	Ahmad (2003) & Bankscope
Liquidity Ratio (LIQR)	$\frac{\text{Net Financing}}{\text{Total Assets}}$	Brigham and Ehrhardt (2003) & Bankscope
Capital Ratio (CAP)	$\frac{\text{Equity}}{\text{Total Assets}}$	Brigham and Ehrhardt (2003) & Bankscope
Net Interest Margin (NIM)	$\frac{\text{Interest Income - Interest Expenses}}{\text{Total Assets}}$	Khan, Anuar, Choo and Khan (2011) & Bankscope
Profitability (PROFIT)	$\frac{\text{Interest Income on Loans}}{\text{Average Gross Loans}}$	Ben Ameur & Mhiri(2013) & Bankscope
Loan Growth (LGROW)	$\frac{\text{Current year - Previous year total loan}}{\text{Previous year total loan}}$	Ben Ameur & Mhiri (2013) & Bankscope
Net Charge Off (NCOFF)	$\frac{\text{Net Charged Off}}{\text{Gross Financing}}$	Bhat, Lee & Ryan (2013) & Bankscope
Staff Efficiency (STAFFX)	$\frac{\text{Personnel Expenses}}{\text{Net Interest Income}}$	ICAP (2006) & Bankscope

The Integrated Measuring of Working Capital Management Efficiency on Financial Performance in Indonesia Stock Exchange

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Abstract: The purpose of this study is to determine the differences effect of working capital efficiency on financial performance during periods of crisis. The measurement is made during the crisis compared to the entire period of observation by using cash conversion cycle (CCC) and working capital policy (both investment policy and financing policy) on the profitability (by return on assets) and market value (by Tobin's Q). Using all annual financial data of 104 manufacturing firms listed in Indonesia Stock Exchange (IDX) over the period 2005-2013. These periods include the global financial crisis. The panel data set was developed for nine years, which produced 936 firms-years observations. This study uses multivariate regression models with hierarchical regression analysis approach. This approach uses the global financial crisis period as a dummy variable. The results showed that there were differences in the effect of the cash conversion cycle (and its components) and working capital policy on profitability during the crisis period compared to the whole period. In contrast, no differences effect the cash conversion cycle (and its components) and working capital policy on the value of the company in the crisis period compared to the whole period. The manufacturing industries do not apply the efficiency in the management of working capital. The global financial crisis tends the companies to change their working capital policy more efficiently. The researcher can extend this study by doing a qualitative research how to chief financial officers invest and finance day-by-day operation.

Keywords: *Working Capital Management, Working Capital Policy, Profitability, Market Value, Crisis*

1. Introduction

Working Capital (WC) efficiency of public firms during the global financial crisis that began in late 2007's is an important issue from theoretical and practical standpoint. According to Chaklader and Shrivastava (2013), WCM failure could threaten liquidity and profitability and become the most important and challenging aspect of the overall corporate performance. For that, Charitou et al., (2012) argues that capital market research is needed on the importance of organizational resources management, particularly WC management. The emphasis on firms' resource efficiency is, because it may have an important impact on financial performance. WC in financial decision making as being a part of the investment assets that require appropriate financing. These decisions have an impact on both short and long term performance. However, WC is often ignored in financial decisions because it has involved short term investment and financing (Ray, 2012). In fact, it is important to maintain short-term investment because it will ensure the company's ability in longer period (Zariyawati et al., 2008). The Development of WCM theories and empirical studies intensively conducted in the last two decades (Lazaridis and Tryfonidis, 2006). However, assets and short-term liabilities are an important component of the overall company's assets and must be analyzed carefully. According to Teruel and Solano (2007), investment in short-term assets and resources used within less than a year is a major part of the balance sheet. The composition and level of investment in current assets, determine the level of expenditure and source of short-term debt (Nazir and Afza, 2009). The management of short-term assets and liabilities requires more investigation as an important role in risk, profitability and value of the firm (Nazir and Afza, 2009).

This research was conducted with the assumption that investors are rational, so that fundamental aspects became the basis of the main assessment. Stock value reflects, not only the intrinsic value at a time, but also the company's ability expectation to increase its value in the future. Fundamental aspects are very complex and wide-ranging, covering macro fundamentals that are beyond of the company's control and micro fundamentals are in control of the company. This study emphasizes of company's internal factors that are often seen as an important factor for determining the share price. Various empirical studies have shown the impact of WCM on financial performance. Research in both developing countries and developed countries provide results that WCM has a significant impact on the company financial performance. Most studies found a significant negative effect of WCM on profitability and value. This is demonstrated by increasing its cash cycle, less investment in current assets will increase profitability and market value, and vice versa. The application of aggressive WCM may be increased on financial performance. These results indicate that the company has implemented WC efficiency. However, research on manufacturing companies listed in Indonesia Stock Exchange (IDX) has found different results. Research conducted by Charitou et al. (2012) based on Indonesian Stock Exchange data during 1998 - 2010. The result of the study didn't support WC efficiency, because it turns the longer period of the WC funds actually increase profitability. Results of other studies also showed that companies are adopting an aggressive WC policy; it produces a lower rate of return than conservative policy (Nazir and Afza, 2009). So far, studies show that the results are still conflicting or inconsistent. The management of WC may have a negative or positive impact on the profitability and value. The efficiency of WC had a significant impact on the improvement of the company's financial performance turned out here is questionable. Besides, according to Gill et al. (2010) that should be assumed there is a certain level of WC requirements which has the potential to maximize the rate of return for the company. In addition, we have not found a comprehensive study with all WCM variables; there are no studies that differentiate the results of the performance during global financial crisis. Most comprehensive study by integrating the variables is expected to obtain richer information. This study is expected to be found the behavior of managers in dealing with a crisis that will be faced in the future.

2. Literature Review

WCM related to the management of current assets and current liabilities as well as the financing of the current assets (Gill et al., 2010). There are short-term financial decisions and management of the company's resources in less than one year, so it is also known as "short-term financial management" (Gitman and Zutter, 2012). A short-term financial decision is a "short-term investments" for financing the company's operations (day-by-day operation) is also intended to obtain a favorable outcome. So, WCM can also be referred to as "short-term investment management". Gitman and Zutter (2012) states that the purpose of WCM is to manage any current assets (inventory, accounts receivable, marketable securities, and cash) and current liabilities (notes payable, accruals, and accounts payable) of the company to achieve a contribution balance between profitability and risk to the value of the company. The efficiency of WCM is a fundamental part of the company's strategy to create shareholder value (Nazir and Afza, 2009). If company increases the profit by ignoring liquidity, it can be turned into serious problems. Thus, a company's strategy must maintain a balance between these two objectives.

WC policy refers to these decisions: 1) how much current asset level must be maintained? and 2) how current assets financed? (Brigham and Gapenski, 2007). Based on both decisions, then obtain the two basic policies, namely: investment policy and financing policy (Brigham and Gapenski, 2007), with the alternative approach can be used, namely: conservative approach and aggressive approach (Al-Shubiri, 2011). A company may adopt an aggressive WC policy by the percentage of current assets to total assets is low, or also can be use the company's financing decision in a high percentage of current liability to total liabilities. Excessive levels of current assets may have a negative effect on the profitability, while the low level of current assets that can cause lower liquidity level and stock-out. This can lead to difficulties in maintaining smooth operations (Nazir and Afza, 2009). Especially for manufacturing companies that number of current assets account include more than half of the total assets of the company (Raheman and Nazr, 2007).

Business success depends on the ability of the financial manager to manage accounts receivable, inventory, and short-term debt effectively (Kaur and Singh, 2013; Filbeck and Krueger, 2005). Companies can reduce funding costs and/or increase the funds available for expanding projects by minimizing the amount of investment that is tied up in current assets. The optimal level of WC occurs when the optimal balance between risk and efficiency is achieved. This requires continuously monitoring to maintain proper levels in the various components of working capital. Referring to the risk and return theory, riskiest investment will result in more returns. Companies with high liquidity of WC may have a low risk, low profitability. Conversely, companies that have a low liquidity at higher risk resulting in high profitability (Saghir et al., 2011). WCM is required to ensure that the company has sufficient cash flow to resume normal business operations in a way that minimizes the risk of inability to pay short-term obligations. In addition, managers

should try to avoid not necessary WC investment because the company imposes opportunity costs and lower profitability. However, balancing the company's liquidity and profitability is not a simple task.
There is a long debate about trade-off between risk/return of the different WC policy. Studies in developing countries with the results negatively and significantly impact on financial performance occurred in Pakistan (Sadiamajeed et al., 2012), Turkey (Vural et al., 2012; Karaduman et al., 2011), Nigeria (Falope and Ajilore 2009), India (Ashraf, 2012), Iran (Mojtahadzadeh et al., 2011), and Malaysia (Azhar and Noriza, 2010). The similar results were also found in developing countries such as Singapore (Manoori and Mohammed, 2012), and Spain (Teruel and Solano, 2007). The study found a negative effect of WCM on financial performance show that the company has implemented a WCM efficient. This is demonstrated by increasing its short-period cash cycle resulting in increasing profitability and market value of the company, and vice versa. Study by Charitou et al. (2012) in any industrial sector of IDX over the period 1998 - 2010. However, the results of this study do not support the efficiency of WC to create the profitability, because it turns the longer period of the funds are embedded in the WC to the impact of increasing profitability. These results were obtained with a positive and statistically significant influence between the CCC on the financial performance. The same findings turned out to occur in emerging markets of Brazil (Ching et al., 2011) and Philippines (Magpayo, 2011). Likewise, the results of research in developed markets of USA (Gill et al., 2010) and European countries (Garcia et al., 2011).

Nazir and Afza (2009) investigated the relationship of WC policy on the company's profitability in Sri Lanka. The results of this study indicate that companies adopt an aggressive investment and financial policy produce a lower rate of return than conservative investment and financing. The same results also found in Jordan (Al-Shubiri, 2011) Iran (Ghaziani et al., 2012), Malaysia (Azhar and Noriza, 2010) and Philippine (Magpayo, 2011). However, the contradict results of risk and return theory on the above studies, that the aggressive WCP would increase the risk and improve company's performance. Only a few studies that produce influences such as that done by Alavinasab and Davoudi (2013) and Al-Shubiri (2011) for the performance by market value. Studied that use the data during the crisis period is done by Chaklader and Shrivastava (2013) in India over the period 2008 - 2011. The results showed statistically a positively un-significant effect on profitability, while the WC investment policy has a positive statistically significantly effect on profitability. This means that companies adopt a conservative WC policy in crisis years. However, research by Ghaziani et al. (2012) that the WCM turns negative and significantly effect on profitability (ROA) and market value (TQ). Similar results were found by Arbidane and Ignatjeva (2013) over the period 2004 up to 2010 in Latvian and research by Ashraf (2012) for the period 2006 to 2011 in the Indian market. These studies only focus on the global financial crisis period or combine the data during the period of non-crisis and crisis periods.

3. Methodology

Variables Used in the Study: In order to measure the efficiency of WCM using CCC and its components as used by Raheman and Nazr (2007) as follow: Cash Conversion Cycle (CCC) = (average collection period + inventory collection period – average payment period),where a lower period means a relatively management efficiency. The CCC components are calculated by: (1) Average collection period (ACP) = (account receivable/sales) x 365; and (2) Inventory turnover in days (ITD) = (inventory/cost of goods sold) x 365, where both lower periods mean a relative efficient management; and (3) Average payment period (APP) = (account payable/cost of goods sold) x 365, where a longer period means a relative efficient management. The degree of aggressiveness of WC investment policy measured by current assets/total assets (CA/TA), where a lower ratio means a relatively aggressive policy. On the other hand, the degree of aggressiveness of financing policy, the following ratio was used: current liabilities/total assets (CL/TA), where a higher ratio means a relatively aggressive policy.

The financial performance has been analyzed through accounting measures of profitability and market value, i.e., Return on Assets (ROA) and Tobin's Q. ROA = EBIT/Total Assets. TQ = market value of the firm/total assets. The market value of firm is the sum of book value of long plus short term debt and market value of equity. The market value of equity is calculated by multiplying the number of shares outstanding by the current market price of the stock in a particular year. This study has taken into consideration some control variables such as firm size, sales growth, and leverage. The firm size (*SIZE*) has been measured by the logarithm of total assets. The sales growth (*S-GROWTH*) is measured by the variation of annual sales value with reference to previous year's sales [$(Sales_t - Sales_{t-1})/Sales_{t-1}$]. Moreover, the leverage was taken as debt to equity ratio (*DER*) of each firm for the whole sample period.

Sample and Data Set: Our data set consist all annual financial data of 104 listed manufacturing firms listed in IDX over the period 2005-2013. The panel data set was developed for nine years, which produced 936 firms-year observations. The required financial data were obtained from the respective firms' annual reports and publications of IDX, internet and websites of different firms. A firm must be in business for the whole of the study period, should neither have been delisted nor merged with any other firm, no new incumbents and firms must have complete data for the period of analysis.

Model Specifications: This study uses a hierarchical regression analysis model. This model uses the global financial crisis period as a dummy variable. The impact of CCC on the firm's profitability as this model:

$$ROA_{it} = a_{0i} + a_1 ACP_{it} + a_2 ITD_{it} + a_3 APP_{it} + a_4 (D^*ACP)_{it} + a_5 (D^*ITD)_{it} + a_6 (D^*APP)_{it} + a_7 Log\text{-}SIZE_{it} + a_8 S\text{-}Growth_{it} + a_9 DER_{it} + \varepsilon 1_{it} \quad \text{……… (Model-1)}$$

$$ROA_{it} = b_{0i} + b_1 CCC_{it} + b_2 (D^*CCC)_{it} + b_3 Log\text{-}SIZE_{it} + b_4 S\text{-}Growth_{it} + b_5 DER_{it} + \varepsilon 2_{it} \text{…. (Model-2)}$$

The impact of CCC and its components on the firm's market value as follow:

$$TQ_{it+1/2} = c_{0i} + c_1 ACP_{it} + c_2 ITD_{it} + c_3 APP_{it} + c_4 (D^*ACP)_{it} + c_5 (D^*ITD)_{it} + c_6 (D^*APP)_{it} + c_7 Log\text{-}SIZE_{it} + c_8 S\text{-}Growth_{it} + c_9 DER_{it} + \varepsilon 3_{it} \text{……… (Model-3)}$$

$$TQ_{it+1/2} = d_{0i} + d_1 CCC_{it} + d_2 (D^*CCC)_{it} + d_3 Log\text{-}SIZE_{it} + d_4 S\text{-}Growth_{it} + d_5 DER_{it} + \varepsilon 4_{it} \text{……… Model-4)}$$

The impact of investment policy on the firm's profitability and the market value:

$$ROA_{it} = e_{0i} + e_1 CA/TA_{it} + e_2 (D^*CA/TA)_{it} + e_3 Log\text{-}SIZE_{it} + e_4 S\text{-}Growth_{it} + e_5 DER_{it} + \varepsilon 5_{it} \text{……. (Model-5)}$$

$$TQ_{it+1/2} = f_{0i} + f_1 CA/TA_{it} + f_2 (D^*CA/TA)_{it} + f_3 Log\text{-}SIZE_{it} + f_4 S\text{-}Growth_{it} + f_5 DER_{it} + \varepsilon 6_{it} \text{….. (Model-6)}$$

The impact of financing policy on the firm's profitability and market value:

$$ROA_{it} = g_{0i} + g_1 CL/TA_{it} + g_2 (D^*CL/TA)_{it} + g_3 Log\text{-}SIZE_{it} + g_4 S\text{-}Growth_{it} + g_5 DER_{it} + \varepsilon 7_{it} \text{…. (Model-7)}$$

$$TQ_{it+1/2} = h_{0i} + h_1 CL/TA_{it} + h_2 (D^*CL/TA)_{it} + h_3 Log\text{-}SIZE_{it} + h_4 S\text{-}Growth_{it} + h_5 DER_{it} + \varepsilon 8_{it} \text{… (Model-8)}$$

where:

ROA = Return on Assets, TQ = Tobin's Q, CCC = Cash Conversion Cycle, ACP = Average Collection Period, ITD = Inventory Turnover in Days, APP = Average Payment Period, CA/TA = Current Assets to Total Assets, CL/TA = Current Liabilities to Total Assets, Log-SIZE = Natural logarithm of total assets, S-Growth = Growth of annual sales, DER = Debt to Equity Ratio. D = Dummy (0 = non-crisis years, 1 = 2008– 2009 on global financial crisis years)

To accomplish its objectives, the current study test all the empirical models using panel data analysis, which can be estimated by either fixed effects or random effects models. Hausman test will be used to discriminate between fixed or random effect estimators.

4. Results

Table 1 present descriptive statistics for all firms over nine-year period 2005 – 2013 (936 firm-year observations). The average of CCC is longer at 110 days, with minimum value is -90 days and maximum value is 375 days. Length of the CCC as a consequence longer of both average inventory turnover period (98 days) and average receivable collection period (60 days) and shorter of average payment period (48 days). This result describes that manufacturing firms listed in IDX implemented conservative strategy for their WC management. The investment policy average measured by CA/TA is 54.11 percent, implying a conservative policy as more invest in the current assets to the total assets. The average value of financial policy, measured by CL/TA is 37.04 percent, implying that firms adopt a conservative policy by using less short term debt to finance their total assets. The average of profitability measured by ROA is 8.81 percent. Its standard deviation is 11.46 percent, which shows that there is high deviation in ROA among sampled firms in our analysis. Mean of firm's value measured by TQ is 1.2 with standard deviation is 1.2. These results showed less of the firm's market performance, although it must be compared with other ratio or industrial benchmarking. However, the TQ ratio showed the value of stocks is slightly higher than assets, implying that firm's stock price close to undervalued.

Table 1: Descriptive Statistics

Variables	N		Minimum	Maximum	Mean	Std. Deviation
1	2	3	4	5	6	7
ROA	936	%	-30.23	47.91	8.81	11.46
TQ	936	Ratio	-0.5	5.5	1.2	1.3
ACP	936	amount of the day	2	181	59	35
ITD	936	amount of the day	0	316	98	64
APP	936	amount of the day	1	163	48	34
CCC	936	amount of the day	-90	375	110	78
CA/TA	936	%	2.97	99.96	54.11	19.46
CL/TA	936	%	0.25	119.05	37.04	23.81
SIZE	936	in million rupiah	10,583	50,770,251	2,703,887	5,168,236
S-GROWTH	936	%	-54.67	73.45	12.92	19.60
DER	936	%	-231.06	708.97	143.05	192.13

Source: Calculated by the researcher, 2014

Similarly, the firm size that use of total assets amounted to an average of 2,703,887 million rupiah and sales growth average rate is 12.92 percent. Implying that there is a high rate of sales growth and assets over the research period. Leverage companies using average debt to equity ratio is 143.05 percent. This result showed that manufacturing firms operated by excess debt from their equity.

Table 2: Multiple Regression Coefficient of WCM on Financial Performance

Variables	Predicted sign	ROA		TQ	
		Model-1	Model-2	Model-3	Model-4
1	2	3	4	5	6
ACP	-	-0.0153*		-0.0035**	
ITD	-	0.0131		0.0026***	
APP	+	-0.0479*		-0.0043***	
(D*ACP)	+	-0.0062		0.0013	
(D*ITD)	+	-0.0129***		0.0002	
(D*APP)	-	0.0284		8.75E-05	
CCC	-		0.0106		0.0017**
(D*CCC)	+		-0.0075*		0.0006*
Log-SIZE	+	4.3971***	4.1915***	0.2567***	0.2573***
S-GROWTH	+	0.0924***	0.0940***	0.0026*	0.0023
DER	-	-0.0095***	-0.0101***	-0.0006***	-0.0007***
R^2		0.8247	0.8231	0.0875	0.0661
Adjusted R^2		0.8008	0.8000	0.0786	0.0610
F-statistic		34.5589	35.6267	9.8653	13,1563
Probability		0.0000	0.0000	0.0000	0.0000
Hausman Chi-Square		22.9773	16.6058	15.9499	8.8923
Probability		0.0062	0.0053	0.0679	0.1134

Source: Calculated by the researcher, 2015
***, **, * statistically significance levels at 1%, 5%, and 10%

Table 2 presents the impacts of the CCC and its component on profitability and value. As predicted, average collection period turns to negative effect on profitability and value, as well as the effect on crisis years, except to TQ. Otherwise, the result shows that average inventory turnover period has positively statistically un-significant effect on profitability, but turn to negatively affect (as predicted) in crisis years, except to TQ. The average payment period is the statistically negative significant effect on profitability in all year. Then, as expected, it changed into positive effect of the crisis years both ROA and TQ. The results confirm that the component of the CCC has increased to the firm's profitability by reducing of day's receivable collection period, increasing of day's inventory turnover and reducing the firm's day payment period efficiently. Not as expected, the result shows that CCC is positively statistically un-significant effect on ROA and TQ. These results indicate that Indonesian manufacturing firms have a conservative WCM in all year. These results are consistent with Ching et al. (2011) in Brazil, Bagchi et al. (2012) in India, Charitou et al. (2012) in Indonesia. The results show that CCC turns to negative statistically significant effect in crisis years, except to TQ as the dependent variable. These results indicate that Indonesian manufacturing firms have a conservative WCM in all year, but it turns to aggressive in crisis years.

Table 3 presented the results of the multiple regression model in which the impact of WC policy on profitability and value. The coefficient of the WC investment policy, measured by CA/TA, is found to be positive both ROA and TQ; indicating that the relationship between conservative investment policy on profitability and value of the firm is positive. Hence, choosing to follow a conservative investment policy will positively affect firm's profitability and value. However, firms that follow the aggressive investment policy by using longer term investment may affect the firm's profitability and value negatively. These results are consistent with Chaklader and Shrivastava (2013) In India, Ghaziani et al. (2012) in Tehran Stock Exchange, Azhar and Noriza (2010) in Malaysia and Al-Shubiri (2011) in Jordan for ROA as the dependent variable. In the case of TQ as the dependent variable, these results are consistent with Ghaziani et al (2012) in Tehran Stock Exchange and Azhar and Noriza (2010) in Malaysia. On the contrary, the results inconsistent with Al-Shubiri (2011) in Tehran for TQ as the dependent variable.

Table 3: Multiple Regressions of Working Capital Policies on Financial Performance

Variables	**Predicted sign**	**ROA** Model-5	**Model-6**	**TQ** Model-7	**Model-8**
1	**2**	**3**	**4**	**5**	**6**
CA/TA	-	0.2139***		0.0063***	
D*(CA/TA)	+	-0.0034		0.0027***	
CL/TA	+		0.0253		0.0068***
D*(CL/TA)	-		0.0038		-0.0021*
Log-SIZE	+	2.8788***	4.1796***	0.1260***	0.1914***
S-GROWTH	+	0.0789***	0.0920***	0.0014	0.0020
DER	-	-0.0079***	-0.0097	-0.0003*	-0.0003*
R^2		0.8490	0.8231	0.7801	0.7815
Adjusted R^2		0.8293	0.8001	0.7513	0.7530
F-statistic		43.0450	35.6406	27.1578	27.3912
Probability		0.0000	0.0000	0.0000	0.0000
Hausman Chi-Square		21.4670	17.8362	12.2304	27.5268
Probability		0.0007	0.0032	0.0318	0.0000

Source: Calculated by the researcher, 2015
***, **,* statistically significance levels at 1%, 5%, and 10%

In case of separation effect by crisis using dummy variable, the results was inversely signed by ROA as dependent variable, but not be found in the TQ model. WC investment policies tend to aggressively affect the ROA in crisis year. Meanwhile, the WC investment policy remains conservative because its effect on TQ as the market value is positively and significantly. Regarding WC financing policies, the coefficient of the WC financing policy, measured by CL/TA, is found to be positive for ROA and TQ; indicating that using more current liabilities to finance firm's activities may positively affect the firm's profitability. However, using the conservative financing policy by more long term debt may affect the firm's profitability negatively. These results of ROA are consistent with Chaklader and Shrivastava (2013) In India, Ghaziani et al. (2012) in Tehran Stock Exchange, Azhar and Noriza (2010) in Malaysia, and Al-Shubiri (2011) in Jordan. These results of TQ are consistent with Nazir and Afza (2009) in Pakistan. Otherwise, these results are un-consistent with Ghaziani et al. (2012) in Tehran Stock Exchange and Azhar and Noriza (2010) in Malaysia.

Analysis separately effect by crisis using dummy variable show that WC funding policy is conservative, because its negative statistically significant effects of TQ as the market value of the firm. This may be attributed to the fact that the crisis has a significant effect on the manufacture firms in Indonesia Stock Exchange; furthermore, the firms have different policy when faced the crisis. The action has generated different performance of the firms. The results indicate that all of the control variables are found to be statistically significant. The firm size has a positive effect on a firm's profitability and value. This may be attributed that larger firms can take the advantage of any favorable investment opportunity. Sales growth also has been found a positive impact on profitability and value due to the fact that increasing the sales level will generate enough cash flow, keeping liquidity at an acceptable level. The leverage, measured by debt to equity ratio, has negative impact on both profitability and market value. This may be related to the fact that increasing of debt makes a bad sense for the investors.

5. Conclusion

The results showed that there were differences in the effect of the cash conversion cycle (and its components) and working capital policy on profitability during the crisis period compared to the whole period. In contrast, no differences effect of the cash conversion cycle (and its components) and working capital policy on the value of the company in the crisis period compared to the whole period. The manufacturing firms listed on the IDX applying the conservative WC policy resulting in lower of profitability and value. However, during the period of the global financial crisis, the firms tend to be more aggressive to improve the profitability of the firms. But, the value of the company was not influenced by the policy to enhance shareholder value in crisis years. The WCM performance driven more by increasing of in size, sales growth and decreasing of debt. Finally, the manufacturing industry does not apply the efficiency of WCM. The global financial crisis has the company to change its strategy and policy WC more efficiently, so that, the profitability and value increased although in low level. These results could be acquired behavior of the firm's WCM and polices to retain the profitability and value when facing a further crisis. The researcher can extend this study by doing a qualitative research how to chief financial officers invest and finance day-by-day their operation.

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Strategic Vision into Operational Reality: A Case Study on Menga Berhad's Transformation Journey

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Abstract: This case study describes the problems faced and transformation efforts taken by the Board of Directors of Menga Berhad in order to stay relevant in the evolving requirements of technology in the ICT industry. The case was identified as a result of stiff competition faced by Menga over the years which resulted in declining of revenues and profit margins, delayed projects and declining customer satisfaction during the recent years and how the strategic vision was turned into operational reality. The data related to the case study has been compiled from Company's Periodic Financial Statements, BURSA announcements given by the new management, websites, articles and through interviews and discussions with the relevant stakeholders of Menga Berhad. The analysis is based on management theories and proven concepts. The strategic intervention identified is per that which has been undertaken by the management in order to mitigate the issues that were being experienced by Menga Berhad. The outcomes of those strategic interventions along with the outcomes, justification of managerial decision making and its critical analysis have been recorded in order to provide further insights to the readers for future application.

Keywords: *Strategic Management, Operations, financial performance, ICT*

1. Introduction

Menga Berhad has been one of Malaysia's leading ICT solutions provider and a renowned forte for more than 30 years as a result of focused business efforts, professionalism, cutting-edge technology and innovativeness. Menga started out as a company selling BIM office products in 1981 but has now evolved into a multi-platform business solutions provider with a paid-up capital of RM60.4m and a company listed on Bursa Securities (Main Market) since 1999. Menga has its Headquarters in Subang Jaya, branch offices in Penang and Johor Bahru and 41 nationwide service locations. However, the evolving requirements of technology, emerging new companies in the ICT arena and the current economic down turn have caused the profitability of Menga to decline significantly over the years. With the declining trend in its revenue and dwindling down of profit margins, the Board of Directors decided that it was time for the major shareholder of the company and the son of the late founder of Menga Berhad, En. Phil Sulaiman, to step in the operations of the company in 2008. Thus, began the transformation journey of Menga Berhad with Phil as the Managing Director, (MD). Phil, as the new MD, is supposed to steer Menga towards offering business solutions that would directly impact customer profitability and value, away from Menga's traditional role as a technology provider. However, after joining as the MD, Phil realised that besides the stiff competition and declining profits, Menga was also having other major problems such as poor monitoring at operational level, delayed projects, talent attrition, ineffective cost management and declining customer satisfaction during the recent years. Phil strongly believed that an ultimate change in Menga's approach in which it relates to its customers was utmost necessary in order to stay relevant in the current evolving technology industry as to negate the chances of further reduction in its profitability margins and stiff competition. However, after serving 6 years as the MD, Phil stepped down on 31 December 2013 to allow Mofit Abdullah to take on the role of the MD starting 1 January 2014 to continue the 2nd phase of the transformation journey of Menga Berhad.

Profile of Company: Menga was established in 17 December 1981 at a time when the country's IT industry was still in its infancy. The establishment was in response to Malaysia's New Economic Policy (NEP) to increase Bumiputera participation in the technology industry. A strategic plan was developed to cultivate local entrepreneurial talent by utilizing a pool of ready talents in BIM and incorporating a company that would serve as BIM's sole hardware dealer and agent in Malaysia in order to penetrate into the local market. The team was headed by the late Ismail Sulaiman, who was formerly the General Manager of BIM Malaysia. Together with a team of about 50 senior BIM personnel, Menga became fully operational on 1 January 1982 with a paid-up capital of RM500,000. Though it started out as a company selling BIM office products, it has now evolved into a multi-platform business solutions provider with a paid-up capital of RM60.4 million.

The vision of Menga is to be, "The Malaysian IT partner of choice." For its customers, Menga desires to be the primary reference point for its customers' IT needs. It also acknowledges that it can only be achieved by a perfect alignment of its goals with those of its customers. It involves deeply understanding how customers create business value and deploying technology in its attainment. Menga has made its mission to help customers succeed. In order to fulfill the Mission, it is imperative that the company understand their environment and challenges. While it will continue to leverage on its strong partnerships with globally renowned partners to provide customers with innovative technology, Menga views technology merely as an enabler in improving business performance. Menga's main aim is to enhance its value proposition by maximizing the returns on their IT investments. Menga structure is divided into two main areas; business divisions and support divisions. Business divisions comprise Maintenance & Managed Services, Project Management, Solution Marketing, Hardware Infrastructure, Network Services Unit, Partner Management, Software Infrastructure, Sales, Solutions Integration, Shared Services & Outsourcing and Software Development. Support divisions comprise Finance, Internal Audits, Business Control, Legal, Human Resources, Corporate Communications, Information Systems, General Services and Sales Support.
Menga Berhad, is also the holding company of the following subsidiaries:

- Menga Services Sdn. Bhd. (Provision of maintenance and managed services)
- Menga Alliances Sdn. Bhd. (Provision of strategic IT outsourcing business) Menga MSC Sdn. Bhd. (Provision of solution services and technology, research and development)
- Menga SSO Sdn. Bhd. (Under members' voluntary winding-up)
- Menga Techniques Sdn. Bhd. (Under members' voluntary winding-up)
- VA Dynamic Sdn. Bhd. (Sale of networking cables and related products)

2. Problem

Being a company that was formed as a BIM arm or agent to penetrate into the local market in Malaysia, Menga found itself only dealing with sole hardware in its initial years. However, over the years, it realized that it needed to diversify itself into other business areas with the slow decrease in its hardware sales due to evolution in technology that was moving away from the need of having hardware with the introduction of internet, shared data centre and cloud services. Within the last 30 years, the technology landscape has changed tremendously. New trends have emerged resulting in a sea of change in the way companies do business. Across the board, companies these days are constantly on the lookout for solutions that will give them an edge over their competition. As such, Menga is constantly striving for ways to provide customers with an experience that will allow them to achieve their business objectives. However, over the years, Phil felt that there was a need to venture into other more value-added services outside the hardware and maintenance business into areas such as solution marketing, network services, software infrastructure, solutions integration, concept proposal, shared Services & outsourcing and software development.

Along with the need to diversify, Menga also found the need to work with other technology partners such as Microsoft, Cisco, Juniper, HP, Lenovo, Oracle, Hitachi and other local and international partners depending on the needs and appetite of the customers. In addition to that, the Board felt that a transformation was necessary because increasingly customers wanted more for less and Menga was unable to concede further. The market had commoditised and from an exclusive ICT company, Menga found itself to become one of the players in the field, turning us into a 'we also can do' company with nothing exclusive to offer. Menga needed to regain its exclusivity once again and become an 'only we can do' company. As the Managing Director, Phil resorted to take immediate actions in order to save Menga from dwindling profits. Besides the dwindling profits, there were other operational issues that needed to be sorted out as well, such as poor monitoring at operational level, delayed projects, talent attrition or lack of capability amongst the staff and ineffective cost management. These operational issues in evidently affected the quality of projects carried out and directly affected customer satisfaction over the recent years. The lack of assurance in all areas of operations also resulted in decrease in productivity. Therefore, Phil felt that he needed to find the causes of the problems which he believed was highly related to the loose top level leadership and lack of monitoring. Amongst the management concerns that were identified were that there were leakages in the cost which are irrelevant to the projects. The dwindling profits is clearly demonstrated when a comparison is done between the Condensed Consolidated Statement of Comprehensive Income for the 3rd Quarter ended 30 September 2013 and 30 September 2010, where there was a significant decrease in revenue and profit amounting to more than RM1.5m and RM3.5m respectively. Delayed or untimely project delivery was a result of poorly managed projects. The poorly managed projects and extended timeline of project delivery also impacted the pricing of projects, hence, projects that were carried out resulted in project losses instead of profits due to there being cost overrun in most of the projects that were undertaken as there needed to be rectification steps taken to improve the quality of the projects before it was delivered to the customers.

Phil also identified potential risks both internal and externally. Internally, he identified there to be talent attrition as more and more employees looked for better paying options outside Menga, where Menga found itself not able to match those better offers due to the declining profit. It has been a very painful experience for Phil because Menga acknowledges that the employees are the lifeblood of its business and believes in attracting the best talent, enabling them to exploit their full potential, deploying them to greatest benefit and meriting their continued service and commitment. Menga recognises that success in meeting employee goals is a precondition to meeting organisation goals. It was also a tough journey for Phil because the ability to penetrate into new markets was hindered by timing issue where new investment may not be able to yield immediate returns to cover costs. On the other hand, the potential risks externally such as the drop in public sector and Government Linked Companies spending in 2014 as those sectors needed to beef up after the elections. Besides that, the macroeconomic condition such as the potential implementation of Goods Services Tax (GST) did not help the current problematic situation of Menga. In addition to that, those problems and issues identified also resulted in declining organizational culture and enthusiasm which impacted the working morale and increased level of absenteeism. Employees started performing personal tasks during office hours due to lack of accountability and poor job satisfaction. This also resulted in managers and staff working without having any objective or targets due to lack of commitment. This also resulted in poor knowledge management, skills depletion and lack of innovation culture in the entire organization. All in all, the entire scenario resulted in the loss of credibility, poor competitive advantage and failing company image amongst customers. Fundamentally, it seemed like a collapsing giant and if immediate attention is not given, ultimately it would result in the downfall of Menga Berhad.

3. Strategic Interventions

Business performance of a company is a top priority for its corporate leaders. Without sustainable performance the long term viability of a company is at risk. Business performance is determined by subjective self-reporting measures via structured questionnaire, where the firms would be asked to assess their financial and market performances relative to key competitors. Measurement will be based on the overall perceived business performance and sales growth. The study done by Chow (2006) concluded that business performance is closely linked to the organizational characteristics, such as ownership (state owned vs. non-state owned) and the size of the firm. Non-state enterprises that were established in the recent years remained small and that ownership types, firm size, firm age, and business environment are all negatively associated with profitability. In a strategy to address the above mentioned problems, Phil changed the Company mission to 'Driving Customer Success'. Menga was offering technology, but what customers really wanted was success. Hence, it chose to graduate from offering customers technology, to offering them success through technology. Success to customers means lower operating costs, better output, and lower risk, which are the drivers of value and the purpose of technology in business. Hambrick and Fredrickson, (2001) defines strategy as a central, integrated concept on how an organization would achieve its objective. Menga's new strategy was aimed at improving its margins via strategic management. Strategic management traditionally focuses on business concepts that affect the performance of an organisation (Hoskisson et al., 1999). Phil looked into areas that can be accomplished through technology, rather than just demand for the technology itself. With that, a Concept Proposal unit was established which drove a sales agenda that promoted value creation for customers and formed 20% of Menga's business with improved margins. Menga was building more profound customer relationships that affect all business it does with its customers.

Phil also drove to develop home-grown solutions to drive customer success, where Menga ventured into ICC solution to promote a complete living experience for residents of real estate developments while next solutions will likely involve mobility where our people have designed creative offerings that drive customer success. For our new technology bets, Phil favoured those that allow differentiation and value creation, such as Analytics and Mobility. In the traditional technology areas, Menga was driving innovation through their Productisation initiative which involved the differentiation of its engineers where it looked into increasing the solution. Menga engaged with partners in the vertical industry and developed functional solutions in an attempt to offset the impact of cloud on our traditional business and buy time in developing a viable cloud strategy. Phil also moved Menga from principal alignment to customer alignment, where customer interest was key. He believed that if Menga becomes precious to customers, the principals will come to us. To help itself into breaking free from a principal alignment, it signed up more principals and endured the discomfort. Nwokah (2008) defined marketing orientation as a concept that holds the key to achieving organisational goals such as market shares, sales growth and profitability. The study which was conducted in Nigeria also pointed that a market-oriented organization is presumed to have superior market-sensing and customer-linking capabilities, and these capabilities are presumed to assure them higher profits in comparison with organizations that are less market-oriented. Market orientation has emerged as a significant antecedent of performance and is presumed to contribute to long-term success. Phil also grew the Telco and enterprise business dramatically to form 70% of Menga's book as it struggled with cutbacks in public spending over the last 2 years which could have been worse without all the above mentioned strategies. These new segments exposed Menga to open market competition and allowed itself to increase its capabilities and competitiveness. Menga saw its business evolving from infrastructures to services.

Besides value creation, Menga also chose to create the best customer experience and improve its operational effectiveness. Although improvement in operations, which is simply doing the same things in a better way doesn't amount to a strategy, it does improve performance of an organization. Though it developed multiple initiatives and expended much effort, Phil felt that Menga has been inadequately successful. Customers complained of poor coordination and its operational costs were excessive. Phil's lack of experience in operations did not help to improve the situation that was being faced by Menga. Hence, in May 2013, Phil resorted to bring a previous customer of Menga, Gohwee See Wee as the Chief Operating Officer in an attempt to help rectify the operational issues and increase the financial performance of Menga. Phil welcomed Gohwee into the Menga family with much anticipation. Gohwee was previously from SCB, a long standing Menga customer, who has held various leadership positions within various SCB IT functions. Gohwee was to be responsible for driving Operational Excellence and Effectiveness, as well as managing the change initiatives that were put in place. Besides the recruitment of Gohwee, there was initially no change to the existing leadership structure. The coming on board of Gohwee created a dramatic impact on Menga Berhad. Phil dared to say that he was learning new things and was excited by Gohwee's perspective. Gohwee was driving improved operational effectiveness and customer experience. Menga was being moved from a fulfilment service to a delivery business, one which strives for relevance and performance.

After almost 6 years as the Managing Director of Menga Berhad, Phil decided that it's time he made way for a new Managing Director to complete the transformation journey that was started in 2008, as he felt that he has acquired a better understanding of my strengths and my limitations. As an Accountant by qualification, he felt that he had good ideas and strategies but realised that more could have been accomplished with better management skills and a deeper understanding of ICT operations. Phil felt that Menga needed someone who can inject new energy and do justice to the foundation that has been built. Mofit Abdullah was brought on board as the 4th Managing Director of Menga Berhad, starting 1 January 2014. Mofit has had 25 years of experience in the ICT industry includes leading HP's consulting and SI businesses, and the Maxis enterprise business. Mofit's appointment comes as the right time as Menga attempts to drive a higher margin business by offering more strategic and outcome-centric business solutions and services to its customers. Along with Gohwee, the COO, Mofit is expected to drive and deliver the success that was sought within the next few years. Together, they are supposed to expand Mengas horizon and offer the group of companies an exciting and fulfilling journey.

Outcomes of each Intervention: Besides all the previous transformation efforts taken by Phil since 2008, the appointment of both Mofit and Gohwee has resulted in the following interventions in order to further turn around the profitability of the company:

- 2014 Menga Group Business Plan and Budget
- 2014 Delivery Structure
- Formation of Commercial Control Unit

Intervention 1 – 2014 Menga Group Business Plan and Budget: In order to achieve the targets set for 2014, the following solutions have been identified to overcome the problem which is to strengthen the top leadership layer, intensify monitoring for better controls over operations. In addition to that, there needs to be a reevaluation of foreign opportunities where such opportunities are led by customers themselves. Menga brand also needs to be further strengthened in order to attract top talent. The management also has pointed that there need to be more discipline applied in cost management in order to increase the profit despite the declining revenue to the stiff competition. Besides all those, the management has also formulated the strategy to deliver high quality customer experience in order to grow wallet share. As the change has only been currently been enforced, the outcome of these interventions is still under detailed scrutiny. However, there has been some cost savings over the span of the last 2-3 months since Gohwee's intervention into the operations of Menga.

Intervention 2 – 2014 Delivery Structure: Besides setting up a target for 2014, there was also a business process re-engineering of the Menga delivery structure in order to tighten up loose ends in terms of proper execution and delivery of projects. There was a need for a redefinition of the middle management requirement and deliverables in order to improve the profitability of the company. The immediate result of having such a re-engineering in the delivery structure has led to better visibility of the cost and profitability of each project undertaken. Thus improving the performance of these delivery departments and in turn, the overall company performance would surely be impacted.

Intervention 3 – Formation of Commercial Control Unit: The Commercial Control Unit was formed to track overall business performance against agreed target (GP) across all business lines, ensure that all existing businesses are profitable ensure that all projects are delivered on time and on budget, manage all project risks and ensure discipline of good project governance via the following functions:

- Business Analysis & Control
- Risk Management (Delivery)
- Project Analysis

Justification of Managerial Decision Making and Critical Analysis: Below is the critical analysis performed in justification of the managerial decisions that were undertaken during the entire course of transformation of Menga Berhad:

Problem	Management Intervention	Critical Analysis
Dwindling down of financial performance	Business Succession Planning	With the change in time, it is essential for companies that are family owned to look into its successors for continuous growth of the business in changing times.
Ineffective monitoring at operations level and lack industry experience	Change in top management	The top management has direct impact on the performance of the any organization as the styles of each leader vary according to their respective exposure and experience.
Delayed delivery of projects	Intensify monitoring and redefinition of middle management requirement and deliverables	Employees of company require continuous monitoring and supervision in order to ensure continued performance of the organizations.
Talent attrition	Strengthen the brand offer especially to attract top talent	In order to further improve the profitability, there is a need for the

		entrance of new breed and more techno savy generation into the company in order to change the culture of the organization.
Ineffective cost management	Be very disciplined in cost management	For sustainable performance and improvement, KPI's (Key Performance Indicators) are necessary to guide the departments towards performance.
Dwindling down of customer experience	Deliver high quality customer experience (to grow wallet share)	As in any business, customers are the lifeblood of the organization. Hence, with improved customer experience, there will be a definite increase in profitability.
No intervention into foreign market due to total concentration on local market	Evaluate foreign opportunities where such opportunities are led by customers	Potential increase in market share with there being income from foreign opportunities.

4. Conclusion

The financial performance or the gross profit of a company is an important indicator that shows if a company is going in the right or planned direction in any industry. As studied in the case, the financial performance was used as a main indicator to measure the growth of Menga Berhad in the in the ICT industry and also as a target to maneuver the company back to its rightful direction by the management transformation that was undertaken by the Board of Directors and its major shareholder. Along with all the measures that have been taken since 2008 such as the appointment of Phil, the new appointment of Mofit and also the 2014 financial target that has been set by the new management to reposition the company back on track, it is certain that a bright future awaits Menga Berhad in the ICT industry. The new management intends to see a surplus in the profit of the company in 2014, as planned. Gohwee the Chief Operating Officer is certain that amongst the main problem of the dwindling profits in Menga was due to lack of monitoring of operations, poor cost control and performance of departments within the organization. A total transformation driven by the Board of Directors was necessary to make sure that the profitability of Menga Berhad would increase again. The other reason is that the shareholders of Menga have been waiting for a couple of years to obtain fruitful dividends as in the past before the revenue and profitability started dwindling down.

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Appendix 1 – Condensed Consolidated Statement of Comprehensive Income for the 3rd Quarter ended 30 September 2013 & 3rd Quarter ended 30 September 2011

	2013 CURRENT Qtr ended 30-Sep (RM '000)	2012 Comparative Qtr ended 30-Sep (RM '000)	2013 9 Month Cumulative to-date (RM '000)	2012 9 Month Cumulative to-date (RM '000)
Revenue	75,219	97,524	211,795	233,477
Operating expenses	(71,305)	(93,132)	(200,788)	(220,180)
Depreciation	(1,852)	(1,738)	(5,587)	(5,091)
Other operating Income	416	439	798	1,242
Profit from operations	2,478	3,093	6,218	9,448
Finance costs	(342)	(300)	(1,044)	(427)
Profit before tax	2,136	2,793	5,174	9,021
Taxation and Zakat	(757)	(1,018)	(1,577)	(2,886)
Profit after tax	1,379	1,775	3,597	6,135
Other Comprehensive Income	-	-	-	-
Total Comprehensive Income	1,379	1,775	3,597	6,135
Profit attributable to:				
- Equity holders of the Company	956	1,320	2,478	4,967
- Non-controlling Interest	423	455	1,119	1,168
	1,379	1,775	3,597	6,135
Earning per share for profit attributable to the equity holders of the Company during the period				
Earnings Per Share - Basic	1.58	2.19	4.10	8.22

Appendix 2

	2011 CURRENT Qtr ended 30-Sep (RM '000)	2010 Comparative Qtr ended 30-Sep (RM '000)	2011 9 Month Cumulative to-date (RM '000)	2010 9 Month Cumulative to-date (RM '000)
Revenue	69,811	73,970	186,404	213,313
Operating expenses	(62,936)	(69,498)	(171,823)	(201,284)
Depreciation	(1,079)	(872)	(3,141)	(2,713)
Other operating income	348	384	1,038	1,202
Profit from operations	6,144	3,984	12,478	10,518
Finance costs	(1)	(22)	(20)	(209)
Profit before tax	6,143	3,962	12,458	10,309
Taxation	(1,843)	(1,188)	(3,737)	(3,092)
Profit after tax	4,300	2,774	8,721	7,217
Other Comprehensive Income	-	-	-	-
Total Comprehensive Income	4,300	2,774	8,721	7,217
Profit and Total Comprehensive Income Attributable to:				
- Equity holders of the Company	2,930	2,340	7,351	6,076
- Non-controlling interest	1,370	434	1,370	1,141
	4,300	2,774	8,721	7,217
Earning per share for profit attributable to the equity holders of the Company during the period				
Earnings Per Share - Basic	4.85	3.87	12.17	10.06

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The Influence of Employer's Behavior, Communication and Psychological Ownership in Promoting the Employee-Employer Relationship in the SMEs

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Abstract: Small and medium-sized enterprises (SMEs) can be deceptively complex organizations to manage due to a broad range of challenges, such as issues relating to owner-managers, as well as employees and the employment relationship (Mallett & Wapshott, 2012). This study is conducted to study three factors, the behavior of the employer, the influence of communication and psychological ownership with relevant to promoting employee and employer relationship in the SMEs. Questionnaires were distributed to 150 employees of various SMEs in the Sri Serdang area of Selangor, Malaysia. The result was analyzed using the descriptive and correlation analysis.

Keywords: *Employer employee relation, employer behavior, communication and psychological ownership*

1. Introduction

Small and medium enterprises (SMEs) are considered the backbone of economic growth in all countries, and to prove this, Malaysia has developed the Ninth Malaysia Plan (2006-2010), where the government has designed a development plan to assist the SMEs to meet the new business challenges in the competitive global business environment. (Muhammad et al. 2010). In other literature, such as Saleh & Ndubisi (2006), Samad (2007), and SMIDEC (2007), they noted the issues and challenges faced by SMEs such as barrier from global sourcing, low productivity, lack of managerial capabilities, lack of financing, difficulty in accessing management and technology, heavy regulatory burden and others. But, there is limited study that focuses on Human resource management (HRM) issues in this enterprise. Previous research on HRM and industrial relation (IR) mostly were conducted in the larger firms with the belief that they are more significance to the literature. In this paper, we explore employment relations in the case of SMEs. Small firms may use different management style but may probably put a high priority on human resources (Ritchie, 1993). Further, Ritchie (1993) also suggested that small medium firms (SMEs) often have little for formal control systems, and communication strategy is almost does not exist. This is justified based on the reason that owner always tried to facilitate open communication based on friendliness and informal atmosphere. The owners also tend to recruit people via network of family and friends and most of the time, they offer very limited training. While in another study, Wilkinson (1999) suggested that although research on HRM and IR in SMEs has emerged, studies in the employment issues still needs to be done.

SMEs are differing from larger firm in several important ways (Torres & Julien, 2005). A previous research also stated that the culture of the relationship between the employee and employer also in most of the time are based on the owner' goals and desires (Jenning & Beaver, 1997; Nadin & Cassel, 2007) and it is normally fostered towards informal relationship and working practices that are generally flexible and quick to change and adapt (Gilman & Edward, 2008). However, it is also suggested that relationship is this organization is important and should not be undervalued (Marlow and Patton, 1993). According to Marlow and Patton, 1993, 'employment relationships' in SMEs, should be focusing on how firms hire, manage, train, reward, handle disputes with and separate from employees as well as the broader relationship between employers and employees(Marlow and Patton, 1993). This is because such employee employer relationships can be influenced by the external factors and the unexpected environments (Kinnie et al., 1999). Any problem may arise that can result to employees experiencing tremendous changes. Thus, it is believed that a research should be carried out to examine how employee reacts and form relationship with their working environment.

The objectives of this research are as follow:

- To study the influence of employer's behavior towards employee and its relationship in promoting employee and employer relationships in the SMEs type of business

- To study the influence of communication among employee and employer that influences their relationship in the SMEs business.
- To examine the relationship of psychological ownership and employee and employer relationship in the SMEs business

2. The Importance of Employee Employer Relation

Industries within SMEs are commonly associated with challenges which include among others, recession, barrier from global sourcing, low productivity, lack of managerial capabilities, and lack of financing, difficulty in accessing management, technology and heavy regulatory burden (Muhammad et al., 2010). With those constraints, maintaining healthy employee relations is not easy and need further attention in order to achieve the organizational positive performance. A study by Jarvis & Rigby, (2012) suggested that a strong employee relation is required for high productivity and human satisfaction. However, strong employee relation does not only depends upon healthy and safe working environment, but also the level of involvement and commitment of all employees with managerial decision, incentives for employee motivation, and effective communication system. Employee relations generally deal with avoiding and resolving issues concerning individuals which might arise out of or influence the work scenario (Jarvis & Rigby, 2012). Good employee relation signifies that employees should feel positive about their identity, their job as well as about being part of such organization. This notion is supported by a work by Sheehan (2013) who demonstrates the important of HRM to sustain the organization competitive advantage. Based on the theory of resource-based view of the firm, Sheehan (2013) suggested that employees should represent important sources of sustainable competitive advantage for SMEs thus the HRM policies should be implemented to bring positive impact on the firm's performance.

What will happen if there is no good relationship between employee and employer? Based on the Social exchange theory by Blau's (1964), the most influential conceptual paradigms for understanding workplace behaviors is a human interaction. Meanwhile, according to the Organizational support theory, Eisenberger et al. (1986) explained that support from the organization could reduce absenteeism and increased organization citizenship behavior and employee performance. Thus it is assumed that in order to promote a good relationship between employer and employees, organization need to put effort to enhance the ties based on the assumption the employees would feel obligated to return favorable attitudes and behaviors from management with good performance. This assumption is made based on the research by Randall (1990) who noted that working relationships which involved supervisory –subordinate relationship can affect commitment. Further, as stated by Luthans (2002), based on the positive psychology and organizational theories, which are merged in the positive organizational behavior (POB), has defined it as the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement (Luthans, 2002). Prior to that Pierce, Kostova and Dirks (2001, 2003) based on studies in sociology, philosophy, human development and psychology, proposed the theory of psychological ownership which suggest a construct of relationship that is separate and distinct from the legal or equity ownership of an organization but instead will develop the relation of employee and employer.

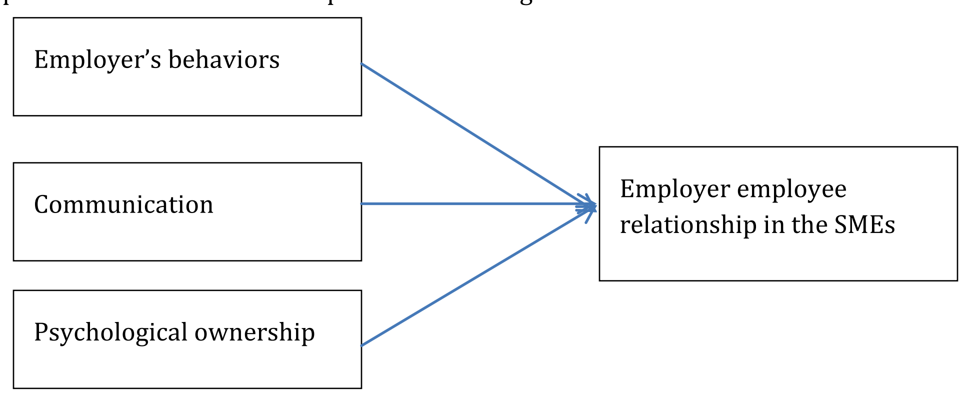
In addition the study on employee and employer relationship also can be related to the theory of motivation. This is suggested because, it is believed that motivating is the management process that involve the act to influence behavior (Luthans, 1998). According to Luthans (1998) motivation is the process that arouses, energizes, directs, and sustains behavior and performance. It includes the factors that cause, channel, and sustain human behavior in a particular expected direction. While, according to Adeyemo (2000) motivation can be a tool that managers can use to drives people to work. Motivation also is assumed to promote a good employee and employer relation. In another point, the research by Robinson et al. (2004) has include the role of employee engagement which was defined as a positive attitude held by the employee towards the organization, to be one of the factor that can improve performance within the job. According to Robinson et al, in order to develop and nurture engagement, it requires a two-way relationship between employer and employee." This definition is in line with the Institute of Employment Studies definition that suggests employee engagement as the relationship between employer and employee and it has to be done by both sides (Markos and Sridevi, 2010). Based on the explanation above, the paper has proposed the H1 as;

H1: Employer behavior to the employees has a positive impact to employee employer relationship
Managing behavior and attitude will need a support of good communication from one manager to the next and from supervisor to the employees. This is because; managerial communication drives relationships and frames the attitudes and behaviors of employees in the workplace. Bahl (2000) suggested that effective communication is the lifeblood for organization and can reinforce the organization's vision, connects employees, fosters improvement, facilitates change, and drives business results. While a study by Dasgupta et al. (2013) explain that supervisors at the workplace should act as the agents for the organizations and be responsible to treat employees accordingly to the extend the employees would feel they receive a good support from organizations. Once employees assess the supervisory support as good and fair, they would act in accordance with a norm of reciprocity. This study suggests that an open, honest, and need-based communication can foster satisfaction and can increase commitment which also lead to minimize the issues of absenteeism and misconducts. Thus, the paper suggests H2 as;
H2: Communication has a positive influence to employee employer relationship

Prior research demonstrated that the ownership of employees was positively related to organizational performance (Rosen and Quarrey, 1987; Wagner and Rosen1985). Pierce et al. (2001) noted, three roots - having a place, feelings of efficacy and self-identity - may contribute to psychological ownership of employees. Employees with psychological ownership regard targets as their extension, defend the organization voluntarily, and feel responsible for organizational goals, and the result is enhancement of organizational performance. According to Van Dyne and Pierce (2004) psychological ownership (PO) is an antecedent of organizational commitment. While Olckers, & Du Plessis, (2012) in their studies has suggested that earlier researches on psychological ownership also has been look in the relation to commitment to organizations (VandeWalle, Van Dyne &Kostova, 1995); greater job satisfaction (Pierce et. al., 1991; Van Dyne & Pierce, 2004); better organizational performance (Van Dyne & Pierce, 2004); more effort from employees to engage in organizational citizenship behaviors (Avey et al., 2009; VandeWalle et al., 1995; Van Dyne & Pierce, 2004); more likely to remain with organizations (Avey et al., 2009).
H3: Psychological Ownership has a positive impact to employee employer relationship

Theoretical Framework of the Research

The conceptual framework that develops after reviewing all the related literatures:



3. Methodology

The research used a closed-ended questions based on reason it is easier to manage, analyze and compare the meanings of the responses than open-ended questions. Questionnaire was designed according to the objective of this research. Questions that related to the factors were adapted from previous studies. The questionnaire was divided into two sections, Section A was constructed to study the influence and the existence of variables for this research, which are employer behaviors, communication and psychological ownership. For items to measure the influence of employers' behavior and the influence of communication, questions were drawn from Hatfield's (1977) and Huseman, Hatfield and Gatewood's (1978) typology of superior-subordinate communication. While for investigating the third item, which is the influence of psychological ownership questions were adopted and adapted from Van Dayne and Pierce (2004). In Section

A, questions were asked using 6- point Likert- scales which ranging from strongly disagree to strongly agree. Section B, this section was aim to collect the respondent's personal information such as gender, year of birth, marital status, educational level, years of working in SMEs, and ethic group. The target respondents were chosen using convenient sampling among the employees working in small medium enterprise (SMEs) in area of Serdang, Selangor, Malaysia. The research has visited few SMEs premises in this area and then distributed the questionnaires by hand to the employees. A total of 180 questionnaires were distributed to the respondents at random during the survey. Out of that number, the researcher managed to collect 150. 30 questionnaires were dropped out from the analysis due to incomplete answers. Overall, the response rate was 83.3%. The reliability was tested according the Cronbach's Alpha Index. The results were summarized in Table 1.

Table 1: Reliability Analysis Result

Variables	Cronbach's Alpha	No. of Item
Employee employer behavior	0.782	7
Communication	0.834	8
Psychological ownership	0.700	5

Respondents' Demographic Profile

Table 2: Respondents' Demographic Profile

Details	Frequency (n = 150)	Percentage (%)
Gender		
Male	36	24
Female	114	76
Age		
20 below	9	6
21 – 30	138	92
31 – 40	3	2
Race		
Malay	133	88.7
Chinesse	4	2.7
India	11	7.3
others	2	1.3
Marital Status		
Bachelor	139	92.7
Married	9	6
Widow	2	1.3
Sector		
Production	120	80
Manufacturing	16	10.7
Services	14	9.3

4. Result and Findings

Based on the questionnaires that have been developed for this research, the data was first analyzed using the descriptive analysis. For Section A, as mentioned earlier, questions 1 to 7 were measuring the strength of the employer's behavior. Based on the result, it has shown that the highest score of mean value is question number one; 'my manager supports my ability to deliver high standards of quality to my customers', which has a score mean value of 3.25. Next for questions in assessing the influence of communication, question number 12 and 15 have shown to be most influencing situations to promote employee and employer relationship. "My supervisor regularly talks with me about my progress' and 'My manager always gives his capacity to hear, evaluate, and respond to criticism and negative feelings from others" with mean value of 3.09 respectively. The highest mean value for questions under the item of psychological ownership scored only 2.85 with the question of 'This organization is part of my life'. It was assumed that employees in the selected SMEs have a feeling that they were part of the organization, but may be were unsure how long they would retain with the current company. Their life, based on the assumption, that majority of the respondents in this research were between 21 to 30, still have a long way to go. And, thus their relationship with the employer can be easily affected by 'dissatisfaction' especially when the management introduces a new thing that is out of their interest.

Table 3: Ranking of Importance for Factors that Influence the employees employer relationship

Variable	Pearson Correlation	Ranks
Employer's behavior	0.40	1
Communication	0.351	2
Psychological Ownership	0.162	3

The research also has performed a Pearson correlation analysis to identify the influence of the relationship of the tested variables. Table 3 indicates the importance of the three factors that influence employee employer relationship. Employer's behavior has the highest correlation to employee and employer relationship and was ranked as the most influential factor. The second factor was communication influence and the third influential factor was psychological ownership. Next the research has analyzed the data to test the hypotheses. With reference to Table 4, the H1, which is 'Employer behavior has a positive impact to employee employer relationship' has shown that the p< 0.05, thus suggest that the relationship is significant, hence H1 was supported and the strength association between the variable was considered as moderate (r = 0.400).

Table 4: Correlation between employer's behaviors and employee and employer relationship

		EE RS	LBEHAV
EE RS	Pearson correlation	1	.400**
	Sig. (2 tailed		.000
	N	150	150
LBEHAV	Pearson Correlation	400**	
	Sig, (2 tailed)	.000	
	N	150	150

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

According to the result as shown in the Table 5, the correlation between the communication and employee and employer relationship indicated it as significant where p < 0.05 (at 0.00), thus H2 was supported. The strength of the association between variable was slightly low (r =0.351). This suggests that communication influence has a significant significantly low influence on the employee employer relationship.

Table 5: Correlation between the Communication and employee employer relationship

		EE RS	COMMUNICATION
EE RS	Pearson correlation	1	351*
	Sig. (2 tailed)		.000
	N	150	150
COMM	Pearson Correla.	351**	1
	Sig, (2 tailed		.000
	N	150	150

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

Further, the result has shown that the correlation between Psychological Ownership and Employee Employer relationship, as shown in Table 6, indicated that p value also significant (p < 0.05), thus we accept H3. The r value was 0.047suggesting that the variable, psychological ownership, have a weak strength of association with employee employer relationship, thus the research assumed that there was low feeling of ownership among the employees towards their organization and it is unlikely to affect the employer and employee relationship.

Table 6: Correlation between Psychological Ownership and Employee Employer relationship

	EE_R	POWNERSHIP
EE_R Pearson Correlation	1	.162
Sig. (2-tailed		.047
N	150	150
POWNERSHIP Pearson Correlation	.162	1
Sig. (2-tailed)	.047	
N	150	150

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

Discussion: Employer's behavior was found having a significant and strong and positive relationship with employee employer relationship and ranked at 1st which had the highest importance among the factors with a mean score of 0.782. This result is supported by the studies by Wright & Cropanzano, (2004) who discovered that behaviors can affect the employee employer relationship in which they suggested that happy workers are productive workers. Every organization is responsible to ensure they have effective channels of communication. Our result has shown that communication can influences employee employer relationship. This findings parallel to the previous researches which suggested that open communication is one of the keys to the successful development of mutually beneficial psychological contracts (Rodwell, Kienzle & Shadur, 1998). Clear and honest discussion will facilitate understanding of expectations, organizational culture, and promote the employee employer relationship. According to prior research, psychological ownership may strengthen the relations between employers and employees and make employees produce extra-role and voluntary behaviors which foster organizational performance via the psychological contract that exists between employers and employees. This study also has found a positive correlation between psychological ownership and employee employer relationship. In past research, psychological ownership has not previously been associated widely, but it can be conceptualized as a positive psychological resource (see the ownership of employees was positively related to organizational performance (Rosen and Quarrey, 1987).

5. Conclusion

This research aims to study the factors that influence how employer behavior, communication and psychological ownership affect the employer and employee relationship. The study has found that there was a positive relationship between employer's behavior, communication and psychological ownership in promoting employee employer relationship. Employer's behavior was found to be the top influence to employee employer relationship, while communication was second and third was psychological ownership. In conclusion, we recommend that SME to enhance the strategies, policies and procedures that are prolong and sustaining the good relationship between employer and employees by focusing on honesty and open policy. This is because when in many cases SME have a quite small number of employees; it is belief that there is no reason to strengthen the relationship. By the way, having a good employee relation can minimize misunderstandings that may result violations.

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Customers as Volunteers? E-Customer Citizenship Behavior and Its Antecedents

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Abstract: The low barriers to enter into the e-marketplace have inevitably intensified the competition among e-retailers. Online retailers are struggling to build a sustainable business model that ensures customers' continuing commitment to their businesses. This study addresses the challenges faced by e-retailers in terms of examining website services and functionalities that would consequently lead to e-loyalty among customers. Empirical findings, based on 385 online apparel shoppers, have shown that extending customers' voluntary behavior (customer citizenship behavior) that can be cultivated upon gaining customers' satisfaction and loyalty provide leads to a better future for e-retailer's sustainability. This study examines the applicability of expectancy-disconfirmation theory and social exchange theory in the virtual world.

Keywords: *Website Quality, E-Loyalty, E-Customer Citizenship Behavior, E-retailing*

1. Introduction

The year of 2013 showed many elements of a perfect storm with the slowdown in emerging markets and ongoing weak consumer confidence in developed global markets. Despite these circumstances, online shopping is proved unstoppable as the sales of e-commerce rose to USD$ 693 billion dollars worldwide in 2013 (Euromonitor International, 2014). Reasons, such as product selection and variety, availability of information, cost saving, lack of sociality, customized products, delivery service as well as privacy and security, have encouraged both consumers and businesses in online shopping as it makes everyday purchases much cheaper and simpler (Swinyard & Smith, 2003; To, Liao & Lin, 2007). Given the fierce competition of the apparel e-commerce market, online retailers must realize the importance of setting up high-quality websites. High-quality websites put a high emphasis on its functionality (information and systems quality) and systems quality in order to satisfy consumers' expectations (Saha & Zhao, 2005). Carlson & O'Cass (2010) also mentioned that the success of an online business depends on the collaborative efforts of both e-retailers and the extra-role participation of the e-shoppers. As satisfied customer possesses high potential in promoting the existing business, the advertising expenses will then be reduced (Ho& Chew, 2012). Hence, working on these customers' potential will heavily benefit online businesses. Therefore, this research is aimed to study the influence of website quality as the antecedents of e-satisfaction on e-loyalty that would eventually lead to e-Customer Citizenship Behavior of online shopping of apparels. The contributions of this study would be of interest to online retailers as this research will provide an understanding of consumer insights, allowing the retailers to make necessary adjustments in fulfilling the customers' needs and wants while competing with each other in this competitive business nature.

2. Literature Review

Website Quality: Information Quality, Service Quality and Systems Quality: According to Udo, Bagchi & Kirs (2010), website quality refers to the overall perceived quality of a website that not only shapes customers' initial impression but also influences customers' level of satisfaction and loyalty towards the website. Previous studies have indicated that the e-commerce success is more likely to happen when the website provides the highest level of quality among its competitors. Without a unified view, it would be difficult to study the success of website quality given the numerous factors (Hwang, Preiser-Houy & Rong, 2012). Therefore, this research adopts DeLone and McLean's IS Success model which proposes Information Quality, System Quality and Service Quality as the three dimensions that would lead to e-commerce success (Petter, DeLone & McLean, 2013). According to Schaupp (2009), information quality refers to the measurement of satisfaction level over the information content provided by an online shopping website. Compared to the traditional brick-and-mortar apparel stores, the greatest advantage of online shopping for the consumers would be the capacity to receive information that are useful, accurate and up-to-date which are relevant to their purchasing intention (Bharati & Chaudhury, 2004). Therefore, providing such information is essential to Internet retailers, as online customers tend to shop frequently for convenience and

search for products (Kuan Bock, & Vathanophas, 2008). This research uses four of Doll & Torkzadeh's (1988) five dimensions End-User Computing Satisfaction measure that corresponds to information quality - accuracy, content, format and timeliness. These dimensions were adopted given the preference of other researchers in literature to the said dimensions (Chin and Lee, 2000). Several studies have found a strong and positive relationship between information quality and satisfaction (Janda, Trocchia & Gwinner, 2002; Szymanski & Hise, 2002; Yang, 2007) However, given that information quality has no effect on satisfaction in virtual online community context by Chen, Chen & Farn (2010), it can be proposed that the result of information quality would not result in similar satisfaction level in all online settings. Therefore, it can be hypothesized that information quality has a significant relationship towards e-satisfaction in an online apparel retailing.
H_{1a}: Information quality has a positive influence on e-satisfaction of online apparel shopping in Malaysia.

Service quality refers to the measurement of satisfaction with the service level provided by an online shopping website (Ahn Ryu & Han, 2007). Service quality is predominantly important in Internet businesses, as online shopping does not require face-to-face contact (Ahn et al., 2007). This situation makes e-service quality crucial given that it only takes one click for the customer to switch to another website compared to the traditional website. Therefore, the expectation of customers in an online retail is much higher and harder to reach than in a traditional retail. In order to maintain customers, online retailers must be prepared to respond to the variety of customer demands such as order changes, cancellations, returns/refunds and quick delivery (Lin, 2007). Based on SERVQUAL, an instrument created by Parasuraman, Zeithaml & Berry (1985) to measure consumer's expectation and service perception, five service quality dimensions are identified - tangibles, reliability, responsiveness, assurance and empathy. These dimensions of service quality are found to have a strong determinant of satisfaction for online stores and retailers (Wolfinbarger & Gilly, 2003). There are several established studies which confirm that a higher level of service quality tends to increase the level of satisfaction (Chang and Wang, 2011; Deng, Lu, Wei, & Zhang, 2010). Thus, it can be hypothesized that there is a relationship between service quality and customer satisfaction.
H_{1b}: Service quality has a positive influence on e-satisfaction of online apparel shopping in Malaysia.

System quality refers to the measurement of satisfaction level over the functional and the technical aspects of an online shopping website (Ahn et al., 2007; Schaupp et al., 2009). Brown and Jayakody (2008) as well as Rai et al., (2002) had mentioned in their research that consumer's intention to purchase via the Internet is heavily influenced by the trustworthiness and ease of use of the shopping system. In this research, consumer's purchasing activities is supported by navigation, ease of accessibility, response time (Palmer, 2002; Schaupp et al., 2009) and security (Doll et al., 2004; Rai et al., 2002) as the main dimensions of system quality (Schaupp et al., 2009). Previous studies by Seddon (1997) and Lin, Wu and Chang (2010) positively relate system quality with satisfaction. Brown and Jayakody (2009) have also indicated the positive relationship between system quality and user satisfaction. The relationship between system quality and satisfaction is argued by Yang (2007) that mentions the inclination of consumers towards information quality and service quality than system quality. Given the difference between the relationship of system quality and online satisfaction, it can be hypothesized that system quality has a relationship towards e-satisfaction.
H_{1c}: System quality has a positive influence on e-satisfaction of online apparel shopping in Malaysia.

Expectancy-Disconfirmation Theory and Social Exchange Theory: Drawing on the theories of consumer satisfaction, Oliver (1980) proposed the Expectancy-Disconfirmation paradigm, which measures the difference between expectation and perceived experience. This difference leads to either confirmation or disconfirmation (Bhattacherjee & Premkumar, 2004). According to Yen and Lu (2008), customer's disconfirmation is positively related to their satisfaction, and this satisfaction will eventually lead towards loyalty behavior. Nevertheless, Expectancy-Disconfirmation Theory has been marked as the best theory in understanding consumers' satisfaction in the e-commerce context (Bhattacherjee & Premkumar, 2004; Chih et al., 2012). Therefore, this theory can clearly be used to explain the relationship between website dimensions such as information quality, service quality and system quality towards e-satisfaction. Social Exchange Theory (SET) explains the situation when individuals feel obligated to reciprocate to those who benefit them (Blau, 1964). In this research, consumers are most likely to develop a relationship with online retailers that they perceive to have invested resources in meeting their needs. SET provides a theoretical support for the link between customer satisfaction, customer loyalty, and customer citizenship behavior. On the other hand, it is implied that the social exchange relationship between organizations and customers is straightforward, as customers who are satisfied with the quality and performance of the e-retailer's service would go beyond the usual to repay the favor by voluntarily engaging in extra-role behavior such as helping behavior and positive recommendation (Anaza & Zhao, 2013; Groth, 2005).

E-satisfaction, E-loyalty and E-Customer Citizenship Behavior: E-satisfaction was defined by Anderson & Srinivasan (2003) as "the contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm". E-satisfaction would increase when the experience of the online service exceeds consumer's expectation on online shopping. E-satisfaction is deemed critical in Internet environment because if the customers are unsatisfied with the high-quality products or services that they have demanded, they will switch to another site with just a click (Kadir, Rahmani & Masinaei, 2011). E-loyalty has been built on the definition of traditional consumer loyalty, where it is defined as customer's favorable attitude towards an electronic business resulting in repurchase behavior (Anderson & Srinivasan, 2003). Cyr, Head and Ivanov (2009) previously has defined e-loyalty as the intention to revisit a website that might result in repeat purchase behavior.

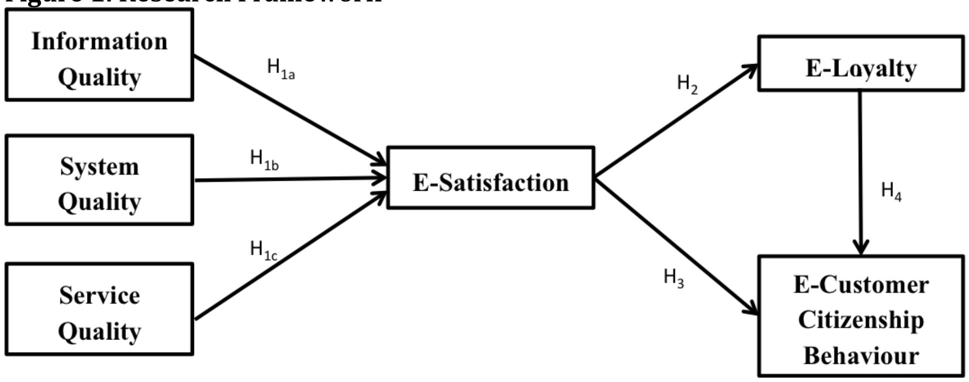
E-Customer Citizenship Behavior (E-CCB) is defined as the voluntary and discretionary actions shown by online shoppers in an online service environment to ease the purchase, delivery and consumption of the e-services, while at the same time helping the firm service success (Groth, 2005). It is also considered to be the extension of consumer loyalty, as it measures other behavior of customers rather than just consumer loyalty. E-CCB is consist of three primary concepts: service firm facilitation, recommendation and helping behavior (Anaza & Zhao, 2013; Bove et al., 2009; Groth, 2005). Given the importance of e-satisfaction and e-loyalty to an online retail, it has been suggested that these positive behaviors of word-of-mouth, recommendation and helping behavior can foster the intention to revisit the shopping website (Flavián, Guinalíu & Gurrea, 2006; Srinivasan, Anderson & Ponnavolu, 2002). In general, customer citizenship behavior had obtained recognition from both scholars and retailers given its importance to the retail industry (Groth, 2005; Rosenbaum & Massiah, 2007). According to Shahsavari & Faryabi (2013), citizen customers will improve the performance and profitability of the business by repurchasing, providing feedback, recommending the retailer, as well as attracting new customers.

Several studies have established the importance of e-satisfaction on e-loyalty and e-customer citizenship behavior, considering that a satisfied customer is less likely to look for other alternatives as well as engage in supportive actions that reflect citizenship behaviors (Eid, 2007; Hsu, Wu & Chen, 2012; Ltifli & Gharbi 2012).However, Bettencourt (1997) found satisfaction to have a direct negative relationship with customer voice behaviors such as participation. Based on his perspective, satisfied customers are unlikely to help the e-retailers, as there are fewer reasons and opportunities to express on how to improve the retailers' service. Therefore, there is clearly a gap to look into leading to the hypothesis formation of a relationship between e-satisfaction and e-loyalty, as well as between e-satisfaction and e-customer citizenship behavior.
H_2: There is a relationship between e-satisfaction and e-loyalty of online apparel shopping in Malaysia
H_3: There is a relationship between e-satisfaction and e-customer citizenship behavior of online apparel shopping in Malaysia.

Similar to e-satisfaction, maintaining e-loyalty is hard due to the surrounding competitions. Several studies have shown that customer loyalty impacts customer organization citizenship behavior (Bove et al., 2009). Moreover, Bettencourt (1997) has listed loyalty as one of the three dimensions of customer citizenship behavior. Furthermore, findings by Macintosh (2002) have implied that customers of strong interpersonal relationship towards a retailer will exhibit dedication of extra role behaviors, such as co-operation and enhancement. However, the same cannot be concluded for e-shoppers in an online setting (Anaza & Zhao, 2013). Therefore, it can be proposed that there is a relationship between e-loyalty and e-customer citizenship behavior.
H_4: There is a relationship between e-loyalty and e-customer citizenship behavior of online apparel shopping in Malaysia.

Based on the literature presented, the research framework is presented in Figure 1. The framework uses the combination of DeLone and McLean's model for Information System Success with Anaza & Zhao's (2013) framework.

Figure 1: Research Framework



3. Methodology

Convenience sampling was the chosen sampling method for this research to provide convenience for the researcher. Due to the unknown number of online shoppers in Malaysia for apparel, Krejcie & Morgan's (1970) table for determining sample size was used to collect a total of 385 respondents from the age range of 18-37. Looking at the age range, these respondents would mainly fall under Generation Y, which is perceived by Kotler & Keller (2011) to be socially-conscious and information-wised as they were exposed to the use and development of technology since birth. The questionnaires were divided into parts, which include general questions, independent variables such as information quality, service quality and system quality, dependent variables of e-satisfaction, e-loyalty and e-customer citizenship behaviour, as well as demographic information. All questionnaires except the general information and the demographic variables were measured based on 5-point Likert scale, with 1= strongly disagree until 5=strongly agree. The research questions were adopted from various sources as shown in Table 1.

Table 1: Questionnaire Sources& Cronbach's Alpha

Variable	Source	No of items	Cronbach's Alpha
Information Quality	Barnes & Vidgen (2002)	4	0.868
Service Quality	Wolfinbarger & Gilly (2003)	5	0.853
System Quality	Wolfinbarger & Gilly (2003)	5	0.880
E-Loyalty	Anderson & Srinivasan (2003)	5	0.924
E-Satisfaction	Anderson & Srinivasan (2003)	5	0.912
E-CCB	Groth (2005)	5	0.888

4. Results and Findings

Bivariate correlation result shows that all Information Quality, Service Quality and Systems Quality have a substantial relationship and are moderately correlated with e-satisfaction (Pearson r ranges from 0.628 to 0.0.671), p value $0.000<0.01$). E-satisfaction is strongly and positively correlated with loyalty and e-customer citizenship behavior (Pearson r ranges from 0.727 to 0.769). The multiple regression analysis for hypothesis 1a, 1b and 1c, resulted in an overall coefficient F value of 132.212 (p-value $0.000<0.01$), implies that changes in at least one of the variables of the study have a significant effect in e-satisfaction. The adjusted R square, which is 0.506, indicated that the model represents 50.6% of the total variable. The results suggest that information quality ($P=0.000$, $\beta=0.214$, $B=0.227$, $T=3.614$), service quality ($P=0.002$, $\beta=0.193$, $B=0.196$, $T=3.048$) and system quality ($P=0.000$, $\beta=0.375$, $B=0.360$, $T=6.583$) have significant effect on consumer's e-satisfaction level (p-value < 0.01). The model specification of the beta equation is presented below. With the figures obtained from multiple regression analysis, this equation measures the satisfaction level in relation to information quality, service quality and system quality.

E-Satisfaction = f(Information quality, Service quality, System quality)

For the result of multiple regression for hypothesis 2, the overall coefficient was found as R^2=0.559, Adj R^2=0.557, F=484.578 (p-value 0.000<0.01). Therefore, the result suggests that e-satisfaction (P=0.000, β=0.747, B=0.904, T=22.013) has a significant impact on e-loyalty in an online apparel setting. The beta equation is presented below, where the equation measures the loyalty level in relation to the change in satisfaction level.

E-Loyalty = f(E-Satisfaction)

For the result of multiple regression for hypothesis 2 and 3, the overall coefficient was found as R^2=0.644, Adj R^2=0.642, F=345.188 (p-value 0.000<0.01). Hence, the result proposes that e-satisfaction (P=0.000, β=0.345, B=0.353, T=7.512) and e-loyalty (P=0.000, β=0.511, B=0.432, T=11.115) positively impact e-customer citizenship behavior. The beta equation is presented below, where the equation measures the e-customer citizenship behavior in relation to the change in e-satisfaction level and e-loyalty level.

E-Customer Citizenship Behavior = f(E-Satisfaction, E-Loyalty)

Discussion: The findings of this study have reinforced DeLone & McLean's model for Information System Success. The quality of a website from the perspective of information, service and systems are indeed essential to satisfy an e-customer. The significant relationship between information quality and e-satisfaction supports the study of Lin et al. (2011), where in order to satisfy customer's information need, e-retailers must provide accurate, complete, formatted and up-to-date information on their websites. The relationship between system quality and e-satisfaction is also proven to have a positively correlated and strong relationship with e-satisfaction. This finding, however, contradicts the findings of Schaupp et al. (2009), which state that system quality has an insignificant relationship with customer satisfaction. According to Yang (2007), the main concerns of online shopping leans towards information quality and service quality as the technology advances, given consumers no longer bother about the easy access to using the system. On the other hand, the finding of this research has established a positive relationship between system quality and e-satisfaction. These results are further supported by previous researches, which indicated the similar relationship between system quality and satisfaction (Lin et al., 2011; Brown & Jayakody, 2008). Meanwhile, Lee & Kozar (2006) regards system quality to be the most important factor in online commerce. Not only that, it was concluded that respondents placed high importance on the security of the online shopping system, given that they still feel insecure about providing their financial information based on the findings of this research.

Further findings have proved the applicability of the Expectancy-Disconfirmation Theory and Social-Exchange Theory in the context of online shopping. E-satisfaction has always been considered as a natural antecedent of e-loyalty [Anderson & Srinivasan, 2003; Szymanski & Hise, 2000]. Consumers who are satisfied tend to stay loyal to the online retailer by repurchasing and spreading positive word-of-mouth, as well as consider the retailer to be their first choice when they tend to make any purchase (Selnes, 1993). However, although e-satisfaction is likely to lead towards e-loyalty based on this research, other researchers would not assume that consumer satisfaction would always lead towards loyalty due to the risk and fear of change (Barnes& Vidgen, 2002). Despite that, findings of this research is further strengthened by Uzun & Poturak (2014), as they mentioned that customers with good online shopping experience from the website are more likely to be satisfied with the products and service, and in return tend to purchase more from the website, making them loyal to the online retail business.

The Social Exchange Theory posits that consumers tend to reciprocate extra-role behaviors such as helping other customers when consumers themselves feel satisfied with the e-commerce website quality (Chen, Chen

& Farn, 2010). Similarly, Morgan & Hunt (1999) claimed that higher assessment reflects the better benefits provided by the company and thus, creating a likelihood for customers to perceive a social-exchange relationship. These ways of motivation process were confirmed further with Groth (2005) as he stated that customer citizenship behavior are strongly predicted by customer satisfaction, similar to organization citizenship behavior where employee satisfaction leads to a better extent of extra-role behaviors. Moreover, the findings between e-satisfaction and e-customer citizenship behavior were similar to Anaza & Zhao (2013), where e-satisfaction is found significant to all three behaviors of e-customer citizenship behavior: recommendation, helping behavior and service firm facilitation. More importantly, this study has empirically proved the capability of customers to extend their voluntary and invisible hand to the organization when they have developed e-loyalty towards the online shopping website. Loyalty and commitment were found to be the key factors leading to customer citizenship behavior (Shahsavari & Faryabi, 2013). Similarly, another research by Yi & Gong (2009) concluded that retailer's positive performance establishes customer citizenship behavior while retailer's negative performance establishes customers' dysfunctional behavior. Likewise, research by Anaza & Zhao (2013) indicated that e-shoppers' loyalty would influence two citizenship behaviors, such as recommendation and helping behavior. Therefore, given the contribution of e-customer citizenship behavior to firm's profitability, managers must consider investing into loyalty-building programs, as it can be effective on customers' citizenship behavior.

5. Conclusion, Limitations & Recommendations

It is crucial for online retailers to recognize the website as the first point of contact between customers and retailers in an online setting. Therefore, it is essential to recognize the importance of the website quality, such as information quality, service quality, and system quality, as it leads to user satisfaction and its extended behaviors. It is essential to know that when consumers are satisfied with the website quality, they are more likely to be loyal and to exhibit extra-role behavior such as recommending the business to other people, filling-out survey forms and helping other consumers in their purchase decisions. With the discovery of positive relationship between satisfaction and loyalty on e-customer citizenship behavior, online retailers can consider commitment and loyalty programs to be established in their services in order to improve customer collaboration in terms of helping the online retailer. Thus, online retailers must take advantage of this research in creating or modifying their websites and services. The incorporation of these aspects will eventually provide a competitive advantage as well as cost-reduction to the online retailer's marketing activities.

As with most studies, there are some limitations in this research which need to be accounted for. First of all, this study considered online clothing stores as the scope of its research and therefore there is no guarantee that the results could apply to other online marketplaces such as online bookstores, online travel agencies, among others. Future researchers could also consider performing similar research on other marketplaces, as it could generate different findings. Secondly, this research is also limited in terms of age. Older-aged consumers were not considered for this study, keeping in mind that older consumers are less likely to shop online compared to Generation Y due to their lack of technology enthusiasm. However, future studies would differ, and researchers could focus on older consumers, as their behavior would change in the coming years. Lastly, this research relies on respondent's self-reported data o study the impact of website quality dimensions as antecedents of e-satisfaction on e-loyalty and e-customer citizenship behavior. Although this method seemed appropriate for its research scope of online shopping in Malaysia, given that the questionnaire measures both expectation and performance, respondents might interpret and respond differently towards the rating scale. Therefore, future researches could consider mixed method approach, where both qualitative and quantitative methods are used in obtaining data.

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Working Capital, Financing Constraints and Firm Financial Performance in GCC Countries

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Abstract: This paper looks at the impact of level of working capital on a firm's financial performance of 153 large manufacturing firms operating in the six Gulf Cooperation Council Countries (GCC).Three hypotheses being tested in the paper are that working capital levels and inventory levels have a negative impact on corporate financial performance, have a positive impact on corporate financial performance, or that there is no empirically provable relationship between working capital and inventory and financial performance. A number of control variables including firm size, gross margins, and age of the firm are used in the regression analysis, as financial performance is not purely dependent on working capital and inventory levels. Pre-tax return on assets (ROA-profit before tax divided by total assets) is used to measure corporate financial performance. Performance is strongly influenced by levels of accounts receivables; however inventory levels and payables have no impact on performance.

Keywords: *Working capital, inventory, receivables, payables, GCC, firm performance, profitability*

1. Introduction

This paper looks at the impact of level of working capital requirements on a firm's financial performance in the Gulf Cooperation Countries (GCC). The focus of the paper is on working capital requirements rather than working capital itself. An important contribution of this paper is that it is first to its kind looking at the relationship between working capital requirements and firm performance using published company data from companies operating in the Gulf Cooperation Council countries. Three hypotheses being tested in the paper are one, working capital levels have a negative impact on corporate financial performance; two, working capital levels have a positive impact on corporate financial performance; and three, there is no empirically provable relationship between working capital and financial performance. The study looks at all the three components of working capital requirements: inventory, accounts receivable and accounts payable. Past studies have indicated that firm size, market share, age of the firm, debt levels and economic growth as measured by growth in gross domestic product; have a moderating influence on the relationship between working capital and performance. In this paper a number of control variables including firm size, gross margins, and age of the firm are used in the regression analysis, as these are the primary factors which have a strong influence on financial performance and since performance is not purely dependent on working capital requirements.

Conceptual Framework: The focus of the paper is on working capital requirements rather than working capital itself. While working capital is defined as current assets minus current liabilities, working capital requirements are defined as inventory plus accounts receivables minus accounts payables. Firms require raw material, work in progress inventory and finished goods inventory to produce and sell. Credit sales result in accounts receivable, and longer the credit given to customers higher will be the size of the firm's accounts receivable. When the operations of a firm require higher levels of inventory and more of accounts receivable, the firm necessarily has to arrange for more funds to operate. The source of the funds required to finance inventory and accounts receivable could be short term liabilities such as accounts payable and bank borrowings, long term debt or shareholders' funds. A firm purchase of goods from suppliers may be on cash terms or on credit. The longer the period of credit extended by a firm's suppliers the bigger the size of its accounts payable, and therefore the less the requirement for funding inventory and accounts receivable. The net amount of funds a firm needs for its operations therefore primarily depends on inventory plus accounts receivable minus accounts payable, which is working capital requirements. Higher funding requirement implies higher cost of funds and lower profit performance.

Using basic accounting identities (Zietlow, Maness & Hill, 2013) working capital can be disaggregated as

$$WC = CA - CL \quad (1)$$

$$= (CASH + INVT + RECVBLS) - CL \quad (2)$$

$$= (CASH + INVT + RECVBLS) - (STTBB + PAYBLS) \quad (3)$$
$$= (INVT + RECVBLS + PAYBLS) + (CASH - STTBB) \quad (4)$$
$$= WCR + NLB \quad (5)$$

where WC is working capital, CA is current assets, CL is current liabilities, CASH is cash and bank balances held by the firm, INVT is inventory investment, RECVBLS is accounts receivables and prepayments, STTBB is short term bank and non bank borrowings, and PAYBLS is accounts payables and accruals. WCR is working capital requirements and NLB is net liquid balance.

The disaggregation of the working capital allows us to reason that increase in working capital requirements of a firm can lead to performance constraints if there is an increase in inventory investments and increase in accounts receivables. However increase in cash holding by the firm cannot result in financing constraints, as the higher levels of cash can always be used to finance the increasing sales growth or to repay debt. Increase is working capital due to increase in cash (but without increases in inventory and receivables) cannot lead to financing constraints as the available cash can be used to finance additional working capital requirements. The metrics therefore which need to be empirically examined while looking at the question of impact of working capital on performance (based on the methodology suggested by Bushman, Smith & Zang (2011) are inventory investment, investment in accounts receivables by firms and funding from accounts payables. Using this conceptual framework, we expect that poorly performing firms will exhibit higher levels of inventory, higher levels of accounts receivable, and will have lower levels of accounts payable.

2. Literature Review

Traditionally corporate finance literature has focused on the impact of long term assets (fixed assets) on corporate performance, although a major part of the left side of the balance sheet consists of investment in short term assets -inventory and accounts receivable (Martinez & Garcia, 2006). One of the seminal papers in the area of working capital efficiency is the study by Richards and Laughlin (1980) which introduced the concept of cash conversion cycle (CCC) and operating cycle. Operating cycle is defined as the number of days required for a firm to convert inventory into finished goods, and finally selling and collecting the accounts receivables. Operating cycle minus the number of days taken to pay for inventory purchases is the CCC which is defined in number of days. An alternate method of measuring working capital efficiency is to use financial ratios based on the components of working capital requirements: inventory to cost of sales ratio, accounts receivable to sales ratio and accounts payable to cost of sales ratio (Maness & Zietlow (2005). Past studies done in various countries have shown that reducing cash conversion cycle to a reasonable extent, by reducing days inventory held and receivables outstanding, increases firm profitability Smith (1980), Deloof (2003), Shin & Soenen (1998). However, while reduction in investment in working capital assets improves profitability, it can increase risk due to the likelihood that the firm may not have enough inventory when needed and the possibility that some customers may not buy unless they get enough trade credit (Martinez & Garcia, 2006).

While empirically estimating the impact of working capital practices on firm performance, endogeneity can be a problem (Deloof, 2003), because while lower inventory and lower account receivables improves profitability, at the same a firm experiencing profitability problems due to competition, market pressures or other reasons, may decide to reduce inventory and reduce receivables so as to reduce interest expenses. This raises the question whether lower profits leads to lower working capital or the other way round. Martinez & Garcia (2006) in a study covering 8,872 firms using techniques which are robust to the endogeneity problem find that reducing the firm's number of days of accounts receivable and inventories adds to the firm's value. Some studies find that industry classification is important in understanding the relationship between working capital and profitability. Importance of efficient working capital management practices for small and medium sized firms has been another area of empirical investigation (Peel & Wilson, 1996; Martinez & Garcia, 2006).

Recent studies done in several countries such as United Kingdom, Singapore, Greece, Malaysia, Turkey and Sri Lanka find that profitability can be improved by shortening receivable conversion period and inventory conversion period (Thuvarakan, 2013; Rathiranee, 2014; Mansoori & Mohammed, 2012; Azhar & Noriza, 2010; Sen & Oruc, 2009 & Lazaridis & Dimitrios, 2006). While earlier studies have looked at data from many countries across the world this paper is a first of its kind. The present study covers both large and medium sized firms. To cope with the effect of size we use total assets as a control variable.

Table 1: Definitions

PBTTA	Pre-tax return on assets
INVCGSAVG	Average inventory to cost of goods sold ratio
RECSLSAVG	Average receivables to sales ratio
PYBLCGSAVG	Average payables to cost of goods sold ratio
GPM	Gross profit margin
AGE	Age of the firm
TA	Total asset, a proxy for size

3. Methodology and Data

Corporate financial performance can be measured using variety indicators such as net income, operating profits, return on equity, return on assets, economic value added etc. Of these return on equity and return on assets are most suitable as the study is a cross section study cutting across firms operating in different countries. Return on assets is a superior measure compared to return on equity for the purpose of this study. Return on equity depends on the capital structure of the firm and as such working capital management practices have little or no influence on capital structure decisions. Return on assets directly measures the impact of working capital on corporate profitability, and is not influenced by debt structure of the firm. Since tax rates can vary from firm to firm and from country to country, pre-tax return on assets is the preferred measure to assess corporate financial performance. In this study pre-tax return on assets (ROA defined as profit before tax divided by total assets), is used to measure corporate financial performance.

Working capital requirement (WCR) by definition is inventory plus account receivables minus accounts payables. However when doing inter-temporal analysis across different years or cross section analysis across different companies there is a need to standardize the measure to overcome size effects. While some studies (Deloof, 2003) use inventory holding days, receivables conversion days or payable outstanding days as measures, this study uses a different set of WCR measures: average inventory to cost of goods sold, average receivables to sales and average payables to cost of goods using the methodology suggested by Zietlow, Maness & Hill (2013). These measures are financial ratios rather than being days and are easier to use from an interpretation point of view. Empirical analysis is based on 2012 end of year financial statement data of 153 large manufacturing firms operating in the Gulf Cooperation Council (GCC) countries.

Estimation Techniques

Robustness Checks, Heteroscedasticity and Robust Least Squares Method: Econometric methods such as the regression techniques are the first choice for empirically investigating the relationship between firm profitability and WCR components – inventory, accounts receivable and accounts payable. However, while using cross section data the standard OLS (ordinary least squares) method of estimation can lead to problems (Gujarati, 2003). Since the data for the present study is drawn from 153 large manufacturing firms across the GCC, it is cross sectional in nature. One of the assumptions of the OLS regression model is that there is no heteroscedasticity. There is a strong possibility that cross section data suffers from problems of heteroscedasticity. When heteroscedasticity is present, statistical tests (such as t-test) of significance that assume that modelling errors are uncorrelated and normally distributed become invalid, because standard errors of coefficients tend to be biased. Inferences based on biased standard errors are therefore suspect.

Cross regression techniques which take care of the problem of heteroscedasticity are required to analyse data of this type In this study estimation was done using White's heteroscedasticity-consistent standard errors (also known as robust standard errors) Gujarati (2003) & Greene (2000). Further to take care of the problem of outliers which was noticed during analysis, the study uses the Robust Least Squares estimation method (Andersen, 2008). OLS estimates are highly sensitive to outliers (that is they are not robust against outliers). Least squares estimation is inefficient and tends to be biased. Robust estimation techniques such as Huber's M-estimation method provide automatic ways of detecting, down weighting (or removing), and flagging outliers. The study used the E-Views software for purpose of robust estimation.

4. Results

For the purpose of analysis two types of regression analysis was attempted. The first is least squares with white heteroskedasticity consistent estimators. This was down with purpose of controlling for possible problems posed by heteroskedasticity. The results show that R squared and adjusted R squared are good and that average receivables, gross profit margin and age are statistically important variables explaining behaviour of ratio of profit before tax to total assets, that is pre-tax ROA. Jarque-Bera test value at 6.44 also indicates that residual errors are not normally distributed. Plots of the data show that there could be problem of outliers in the data set in the regressors (independent variables).

Table 2: Dependent Variable: PBTTA

Method: Least Squares Regression
White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	
C	-0.00316	
INVCGSAVG	-0.02039	
RECSLSAVG	-0.18109	*
PYBLCGSAVG	-0.00084	
GPM	0.246268	*
AGE	0.001328	*
TA	-1.96E-09	
R-squared	0.415242	
Adjusted R-squared	0.381506	
JB	6.44	

* significant at 1% level

Therefore "Robust Least Squares" technique was adopted to take care of outliers in the data. Of the three different methods of robust least squares, that M-estimation, S-estimation and MM estimation, in this paper we used the S-estimation which is specifically designed for outliers in regressors. In the robust regression problem of heteroskedasticity is handled using Huber standard errors.

The results obtained are same as those of the White - adjusted least square procedure. Again we found that average receivables, gross profit margin and age are the significant variables explaining the behaviour profits (pbtta). Average inventory levels and average payables had no influence on firm performance. The negative sign indicates that higher the average receivables lower is the pre tax ROA. Further Jarque-Bera test for normality indicates that the errors are normally distributed indicating that our model does not suffer from mis-specification errors. (JB at 5.8 is less than the chi square value). Gross profit margins and size are control variables in the above model. They are statistically significant as expected. The above regression estimates imply that inventory does not impact pre-tax return on assets. This finding is at variance with the results obtained by other studies Deloof (2003), Martinez & Garcia (2006), Sen & Oruc (2009), Lazaridis & Dimitrios (2006). To understand this result, a deeper understanding of the workings of companies operating in the Gulf Cooperation countries (GCC) is required and this was attempted as part of this study. Interest costs are very low for GCC manufacturing companies and many are supported by soft loans from their respective governments. Companies can afford to maintain high levels of inventory without the worry of higher costs. High levels of inventory therefore do not have much of an impact on the profits and on pre-tax return on assets.

Table 3: Dependent Variable: PBTTA

Method: Robust Least Squares Regression

Method: S-estimation

Huber Type I Standard Errors & Covariance

Variable	Coefficient	
C	-0.00963	
INVCGSAVG	-0.00788	
RECSLSAVG	-0.19909	*
PYBLCGSAVG	-0.00095	
GPM	0.206834	*
AGE	0.001684	*
TA	7.75E-10	
	Robust Statistics	
R-squared	0.271762	
Adjusted R-squared	0.229749	
Rn-squared statistic	67.74606	
JB	5.86	

* significant at 1% level

The regression results reported above show that higher levels of accounts receivables have a strong negative impact on pre-tax return on assets that is on profitability of GCC companies. This result is very much in agreement with what has been reported in earlier studies done in other countries. However, as mentioned just now interest costs are very low for GCC manufacturing companies in spite of heavy use of debt because of low interest rates and soft loan support form governments. The negative impact of accounts receivable on profitability can be explained not through interest cost argument, but because of bad debts associated with accounts receivable. It is a known fact that companies giving more credit to customers typically suffer from higher levels of bad debt. Profitability of GCC manufacturing firms is negatively impacted by higher levels of accounts receivable because it proxy's for bad debt and not because it proxy's for higher interest cost.

5. Conclusion

The main findings of the study are that corporate financial performance of GCC manufacturing companies, as measured by pre-tax return on assets, is strongly influenced by average accounts receivable levels after adjusting for the influence of control variables. Inventory levels had no impact on financial performance. Similarly payables had no effect on financial performance, although in theory higher levels of payables should lead to better profitability. Average accounts receivables have a strongly significant negative influence on performance of GCC manufacturing companies. Lower investment in accounts receivables directly results in better profits along with less of assets, thus leading to better pre-tax return on assets. The results imply that a typical GCC manufacturing company can improve profitability by reducing the level of accounts receivable and by better bad debt management. The paper therefore concludes that better accounts receivable management will be beneficial from a performance point of view.

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The Situational Leadership Behavior, Organizational Culture and Human Resources Management Strategy in Increasing Productivity of Private Training Institutions

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Abstract: This study aims to analyze the relationship of situational leadership behavior with the organizational culture; the influence of situational leadership behavior and organizational culture on implementation of human resource management strategies; the effect of the implementation of the strategy of human resource management on productivity; the influence of situational leadership behavior, organizational culture and the implementation of human resource management strategies on the productivity of private vocational training institutes. While the type of research are descriptive and verificative using explanatory survey. The data collection is done using questionnaires, documentation and interviews, while the sampling technique used a Likert Summated Rating. The unit of analysis is the field of operation and delivery of training services and fields of administration. Data analysis is using path analysis. The results showed that the situational leadership behaviors significantly correlated with the organizational culture; the situational leadership behavior and organizational culture have a significant effect simultaneously and partially on the implementation of human resource management strategies in private vocational training institutions; the implementation of human resource management strategies have a significant effect on productivity improvement of private vocational training institutions; the situational leadership behavior, organizational culture and the implementation of human resource management strategy that have a significant effect simultaneously and partially to the increased productivity of private vocational training institutions in North Sumatera province.

Keywords: *Situational Leadership Behavior, Organizational Culture and Human Resource Management Strategy, Productivity*

1. Introduction and Literature

The job training services industry has a good prospect because the needs of people on the job training is not only for the workforce who are seeking a job and be self-employed but also for those who have got a job and have started in entrepreneurship. They want to have and increase the knowledge, skills and attitudes to be more productive in works. This prospect can be exploited by private vocational training institutions as an opportunity to provide better job training, in accordance with the expectations of society, especially for the workforce who need job training. The private vocational training institutions as institutions belong to the public services consist of service operation system and service delivery system. On the service operation system of training comprises a component in the overall of service business systems, whereby the input is processed and the product elements are created through a physical component and human resources (Lovelock, 2002, p. 60). The training institution as agency that has service operations training with high level of contact on customers which is an operating system services that require significant interaction between customers, personnel, training facilities and equipment services (Schroeder, 2000, p. 80). The training institutions have the characteristics namely, an intangible product that is a service activity between training and non-training personnel with participants, no ownership, along with the production of consumption. This is aligned with the opinion by Zeithaml & Mary (2000, p.3), that the services have characteristics of activities such as intangible, not cause ownership, production and consumption occur simultaneously and production processes related or not related to the physical product.

In relation to the development of the service sector including job training services, it can not be separated from the demand to remain the quality of the operation and delivery of services. Various attempts have been made to improve the functioning of private vocational training institutions more efficient, so as to reach all levels of society. The central government has provided policy and operational guidelines for private vocational training institutions through an Act No. 13 of 2003. This Act establishes a private vocational training institutions as a training center belonging to the community that has the task of organizing vocational training to equip and improve the knowledge, skills and attitudes of work, both for the workforce and labor to improve competence in accordance with demand for labor market needs. The government policy related to the current employment situation where the growth of the labor force is higher than employment. In general, the labor force does not have the skills and attitudes that work according to industry demand, they still need the job training. Cushway (2002, p.114) states that training is a planned process to change knowledge, skills and attitudes of labor to increase productivity in all activities which is conducted for both new workers and for those need refreshment and enhancement of skills on any new equipment. This prospect can be exploited by private vocational training institutions as a business opportunity that has the mission of education and training. Perhaps, the operation and delivery of training services of private vocational training institutions can not be separated out of the demand to improve the productivity and quality of service. The success of vocational training institute which is visible from the training facility utilization rates is still low. This is thought to influence the behavior of the leadership of the implementation of the organizational culture and the implementation of human resource management strategies in private vocational training institutions. The limited research on leadership behavior, organizational culture and the implementation of human resource management strategy and productivity of private vocational training institutions, motivated the author to make a temporary observation.

The observation indicates that the productivity of private vocational training institutions in North Sumatera province is seen has low utilization of operating facilities and delivery of training services. Generally, it showed a private vocational training institutions is not ready to increase the productivity of service and to compete in the business world. This phenomenon is presumably because in addition to the lack of professionalism of the actors in the operation and delivery of training services, as well as the inappropriate leadership behavior, low level of implementation of the organization culture and human resource management strategy. The leadership behavior has not manifested in the behavior of the task, behavior of the relationship and not in accordance with the maturity level of subordinates. Giving instruction, motivation, direction and guidance as well as the mobilization of leadership training institute is not in accordance with the level of subordinates' maturity. In such situations, an effective and flexible leader is needed to adjust to the difference between the subordinate and the situation. The situational leadership theory states the leaders understand its behavior, the properties of subordinates and the situation before adopting a specific leadership behaviors (Gibson et al., 1997, p.20). The application of organization culture is not been effective which seen from labor's lack of awareness to cooperate in achieving the objectives, less creative, innovative and normative.

The private vocational training institutions have not been able to guarantee the quality of operation and service training to trainees. Some of the officer has the attitudes of unpleasant and often there is a delay in the operation and delivery of training services. The instructors often late arriving at the training operation, so that the trainees waited for long time. This makes the labors reluctant to attend training at the local private vocational training institutions, they would prefer to choose training programs in other areas inside and outside the country. The instructor competence is low both in mastery of skills and industry experience as well as training's methods. Most of the private vocational training institutions in North Sumatera province have not been doing training in accordance with the results of the analysis of training needs. This phenomenon is suspected due to the internal problems faced by the private vocational training institutions, namely low productivity and quality of service that is caused by the low level of implementation of human resource management strategy which is not supported by the behavior of the leadership and implementation of organizational culture. In general, private vocational training institutions have not been able to market its training programs. The reputation of private vocational training institutes is still below par, the quality of graduates is low, there are many graduates who are yet to get a job. The service performance is still below the expectations of participants. The trainees are not satisfied with the operation and service training institutions.

In the midst of the problems faced, the private vocational training institutions in North Sumatera province have an important role in the operation and delivery of training services to the community. It is expected to always strive in making the trainees become satisfied and loyal. This is consistent with the expectations of society to the private vocational training institutions in order to provide training services work better, always trying to improve service satisfaction oriented. In achieving its role, private vocational training institutions should be able to design training programs work appropriately and absorb a lot of trainees and graduates according to the needs of industry or market demand for labor. In achieving the goals, the private vocational training institutions internally seeks to manage its human resources. This is in accordance with the opinion of the scholars that the human resources not only as a factor of production to increase productivity of vocational training institutions but as intellectual capital which is an asset of the institution/company. If the job-training institutes led by leadership behavior with an appropriate organizational culture application and implementation of human resource management strategies, thus productivity and quality of job training services will increase as people's expectations. The strong leadership behavior is needed to overcome the changes in the external environment, such as business competition, government policies, technological advances and changes in socio-economic changes that affect the formula and implementation of human resource management strategies (Mello, 2002; p.107). The effective implementation of human resource management strategy requires leadership behavior and organizational culture to create a workforce that has the willingness and ability to perform activities that generate the performance, productivity and profitability of the company (Noe et al., 2000, p.53). In the implementation of the strategy, it required the commitment of human resources that are formed in the culture of the organization, so that they have a positive contribution. Human resources required to act more as a determinant of performance and driving performance to improve productivity and quality of operations and services as well as winning the competition in the business world. If the productivity and quality of operations and job training services increases, the trainees will be satisfied following the training program. If the expected trainee satisfaction is achieved, they will be loyal and tell to others.

The situational leadership behavior is a person's ability to influence the actions of human resources towards the achievement of organizational goals with a combination of task behavior, behavior and maturity subordinate relationship (Kreitner & Kinichi, 2000, p.551). The leadership behaviors that can influence and direct the human resources have a diverse backgrounds of social, economic and different abilities. Moreover, it is expected to develop human resources profession, followed by administration of adequate compensation for performance and equitability. The income received by the leaders and their families, affect the productivity of labor training institutions. While the organizational culture is a common perception held by human resources as a member organization of the institution used as a system of shared meant to increase productivity and job satisfaction (Robbins 1998, p.308). The service providers in the service operation and delivery system which have high level of contact with customers require the support of the physical environment and personnel contacts to meet objectives that have been established by the institution/company (Schroeder, 2000, p.80). This is aligned with the opinion of Lovelock (2002, p.53) that the intensity of the interaction in the operation and delivery of services can take place with a high contact customers, labor, equipment, and other service facilities. The physical support such as facilities, equipment, location and personnel contact in operating activities and delivery of services are required for situational leadership and organizational culture in implementation of human resource management strategy. An effective implementation of strategies will generate employment who have the willingness (responsibility, confidence, motivation) and ability (knowledge, skills) as well as in influencing the attitudes of labor productivity, quality and profitability of the company (Noe et al., 2000, p.53; Mello, 2002, p.107; Kreitner & Kinichi, 2003, p.67; Robbins, 2003, p.283).

The situational leadership behavior is based on the assumption that leadership behavior combines task behavior and the behavior of the maturity level of the relationship with the subordinates. The accuracy of situational leadership behavior with subordinate maturity level is required in achieving the company's productivity (Kreitner & Kinichi, 2000, p.551). The situational leadership behavior is a manifestation of its ability to influence a group of people to achieve the goals of the organization that combines task behavior, behavioral relationships in accordance with the maturity level of subordinates. The situational leadership behaviors affect, change and direct the behavior of subordinates through cooperation and communication in order to work productively (Blanchard & Hersey, 1993, p.192). The function of organizational culture in the operation and delivery of services are managed by the effective behavior of leadership through the implementation of human resource management strategies, in which can increase the productivity and satisfaction of labors and the institutions (Kreitner & Kinichi, 2003, p. 86). Organizational culture serves as a mechanism to make, control, guide, and shape the attitudes of productive work which encourages the growth of the institution that have an influence on productivity and job satisfaction (Robbins, 1998).

The implementation of human resource management strategy with operational functions i.e. recruitment, selection, training, performance appraisal, compensation and labor relations increase the productivity of institutions and provide a positive contribution to the implementation of the strategy of the institution through applying the technology, capability of making a high quality product or service (Mello 2002, p.237). According to the study by Mello (2002, p.107), the implementation of human resource management strategies that can effectively improve the performance and productivity, labor satisfaction and customer satisfaction and increase the value of the securities to shareholders (enhanced shareholder value). Similarly a study by Noe et al. (2000, p.53) shows that the implementation of human resource management strategy has a decisive contribution to the improvement of performance, productivity, quality and profitability of the institution/company. Productivity is a measure of the quality and quantity of work performed by taking into account the cost of used labor resources. The productivity is a measure of performance that includes effectiveness and efficiency. While, the effectiveness means of achieving goals, and efficiency is the ratio between the effective output and input required to achieve it (Robbins, 2003, p.22). The productive workforce will reduce operating costs and ensure customer satisfaction, if supported by the leadership behavior, culture, systems and appropriate technology (Schroeder, 2000, p.84)

An increased productivity of training institutions influenced by the behavior of situational leadership, organizational culture application and execution of human resource management strategies. The increased of productivity, quality and profitability of the institution/company is an advantage in winning the competition or used as acompetitive advantage. The situational leadership behavior and organizational culture both have a positive relationship that can accommodate the capabilities of human resources in the implementation of human resource management strategy which has a positive effect on the productivity of the institution (Blancard & Hersey, 1993; Kreitner & Kinichi, 2000). Giving the clear, detailed and precise work's instructions or notices of the situational leadership behavior can affect subordinate to improve the productivity of the institution (Blanchard & Hersey, 1993; Robbins, 1998; Kreitner & Kinichi, 2000). The implementation of consultation from the situational leadership behavior can communicate in both directions between superiors and subordinates, and subordinates could participate in decision-making and increased productivity of institutions (Blanchard & Hersey, 1993; Robbins, 1998; Kreitner & Kinichi, 2000). The dimensions of participation in situational leadership behavior, a low degree of task behavior, behavior and the level of maturity of the subordinate relationship from moderate to high can increase the productivity of the institution (Blanchard & Hersey, 1993)

The implementation of human resource management strategies are creating the human resources that could contribute positively to influence the productivity of the institution (Noe et al., 2000; Dessler, 2000; Mello, 2000). The right implementation of the recruitment and selection is to obtain high competence of workers to perform productive works (Mello, 2000; Noe et al., 2000). The implementation of effective training increase the competence of workers who have a positive influence on the productivity (Noe et al., 2000). The results of the implementation of the management and performance assessment can be used for the implementation of training programs and adequate compensation in an effort to improve the productivity of institutions (Mello, 2000; Noe et al., 2000; Dessler, 2000). The increasing needs of the people on the job training is demanded the leader of training institutions to deliver the most needed services and types of training programs with better methods, effective and efficient. Lovelock (2002) stated that the business is seen as a system consisting of service orperation, service delivery and service marketing system. These systems consist of parts that are not visible to consumers (technical core) and parts are seen by consumers (physical support and contact personnel).

The private individual vocational training institutions as a training provider has high-contact service, so that workers become part of the training operating system and delivery services to fulfill the objectives that have been set by the institution/company to the customers (Schroeder, 2000). Therefore, an increase in the willingness (responsibility, confidence, motivation) and ability (knowledge, skills) and attitudes of the participants managed by situational leadership behavior and organizational culture in the implementation of human resource management strategies would improve the productivity of the institution/company (Noe et al., 2000; Mello, 2002). The private vocational training institutions are expected to create excellent service quality in the training operating and service delivery system programs that can give satisfaction to the trainees. This can be done with the support facilities (physical support) owned by the training institutions and the delivery of employment services (contact personnel). Furthermore, according to Noe et al. (2000), the empowerment of environment (physical invironment) and an increase in workforce skills of training and non-training with the implementation of human resource management strategy led by the behavior of situational leadership and implementation of effective organizational culture will improve productivity, quality and profitability of the company.

The situational leadership behavior with dimensions of instruction, consultation, participation and delegation affect the implementation of human resource management strategy (Kreitner & Kinichi, 2000; Blanchard & Hersey, 1993; Robbins, 1998) and the dimensions of organizational culture of constructive, passive defensive and aggressive-defensive affect the implementation of human resource management strategy (Kreitner & Kinichi, 2003; Tiwana, 2001; Robbins, 2003), then the implementation of human resource management strategies with dimensions of recruitment, selection, training, performance appraisal, compensation and labor relations affect the productivity of private vocational training institutes (Mello, 2002; Becker et al., 2001). This study conceptually has identified the relevant independent variables, namely; the situational leadership behavior, organizational culture and implementation of human resource management strategy. As the dependent variable is the productivity of private vocational training institutes. According to Blanchard & Hersey (1993); Kreitner & Kinichi (2002), the dimension of situational leadership behaviors include the instruction or notify (telling), consultation or selling, participation and delegation. Theoretically situational leadership behavior and organizational culture both have a positive relationship, then the situational leadership behavior and organizational culture positively affect the implementation of human resource management strategies that have contributed to the productivity of the institution. The implementation of human resource management strategy supported by situational and cultural leadership behaviors can increase the productivity of institutions. There are four operating factors as the important input, namely; labor, capital, technology and physical facilities such as building and equipment.

Based on the conditions of private vocational training institutions as described above, the existing gap used as a central theme of the research problem, namely; the low use of the facilities by the public training institutions, so that the institution does not absorb trainees. The low use of the facilities caused by not observing the behavior of leadership and organizational culture that influence the implementation of human resource management strategies which result of low productivity of labor training institutions. The reason of the author in determining the central theme of the problem due to the situational leadership behavior and application of organizational culture to support the implementation of human resource management strategies that have contributed as a determinant in increased productivity and business success of the institution/company. The efforts to improve the productivity of training institutions need proper leadership behavior and organizational culture that is able to improve the ability of workers to increase productivity. Given the arguments, it is necessary to analyze the influence of situational leadership behavior, organizational culture and implementation human resource management strategies on productivity at the private training institute in North Sumatera province.

2. Methodology

The type of study is descriptive and verificative that aimed to get a picture and information about the behavior of the leadership, organizational culture, the implementation of human resource management strategies and productivity as well as, to test its effect on the increase in productivity of private vocational training institutes. Descriptive study aimed to obtain clearly about certain circumstances, while the verificative refers in determining the clarity of relationships and the influence of a variable or to test hypotheses by statistical test of path analysis that can answer all the formulated questions. There are two methods of survey are applied, namely descriptive and explanatory survey, while the unit of analysis is on the field of operation and delivery of training services (Assistant Director of Operations) and field of administration (Assistant Director of Administration and Finance).

Operationalization of Research Variables: A summary of operationalization of research variables is depicted in Table below:

Table 1: A Summary of Operationalization of Research Variables

Variable	Dimension	Indicator	Scale
	Instruction or Notifying High degree of task behavior, low-level relationships and low subordinate maturity level, less capability and ready to perform tasks to achieve operational objectives.	1. Ability of employers to set the institutions' goals /productivity. 2. Ability the top managers to assign tasks and responsibilities of the subordinate. 3. Accuracy of top managers in giving instructions 4. Ability of employers to give guidance 5. Ability to control the subordinate by the supervisor at a low maturity level	Ordinal
Situational Leadership Behavior (X_1) Ability of superiors to affect the subordinate situation with a combination of task behavior, behavior and maturity subordinate relationship.	**Consultation or Selling** High degree of task behavior, high degree of relationship level and subordinate low level of maturity to moderate, subordinates are not capable but ready to do the task.	1. Ability of superiors to assign tasks and responsibilities of the subordinate 2. Accuracy in facilitating the consultation 3. Include the suggestions of subordinates in decision making 4. Ability of employers to give guidance 5. Ability to motivate, harmonious labor relations 6. Ability of employers to control the work of subordinates.	Ordinal
	Participation Low degree of task behavior, high degree of relationships level and a moderate degree of maturity level to high of the subordinate, the subordinates are capable but not ready to perform tasks	1. Ability of superiors to cooperate with subordinates in determining the decision 2. Ability to motivate and ease of work 3. Ability superiors to communicate with subordinates 4. Ability of employers to avoid conflicts 5. Ability to provide support, attention to subordinate	Ordinal
	Delegation Low degree of task behavior, low of relationships level and a high degree of maturity level of subordinates, subordinates are capable and ready to perform the task.	1. Ability of employers to give the delegation of tasks and responsibilities 2. Ability of employers to authorize the achievement of objectives (productivity) 3. Consider the suggestions of subordinates in decision making. 4. Accuracy of top managers in giving proper and fair compensation 5. Ability of supervisor to control the subordinate at a high maturity level	Ordinal
Organizational Culture (X_2) Form of owned assumption implicitly accepted by the working group, determine the feeling of working group, think and react.	**Constructive Organizational Culture** Organizational culture motivate workers to interact and work together, unity, normative, giving awards to performance on the goal achievement.	1. Ability of leaders to encourage workers to be cooperate constructively 2. Ability of leaders to encourage innovative and creative workforce in preparing operating strategy. 3. Ability of leaders to encourage normative workforce to carry out the task on time 4. Ability of leaders to encourage workers to develop themselves 5. Ability of leader to give the reward to the supportive and constructive workforce. 6. Ability of leaders to give the reward to the honest and objective workfore.	Ordinal
	Defensive passive of Organizational Culture Organizational culture encourages workers interact with coworkers, normative,	1. The ability of leaders to encourage workers to interact with co-workers. 2. Ability of leaders to encourage normative workforce. 3. Ability of leaders to encourage the labors	Ordinal

	prioritizing supervisor's approval to achieve the goal.	to felt agreed and consent the top managers. 4. Ability of leaders to encourage labor to avoid conflicts 5. Ability of leaders encourage labors of traditional conservative. 6. Ability of leaders to encourage labor of rapid environmental adaptation. 7. Ability of leaders to labors to obey instructions.	

Variable	Dimension	Indicator	Scale
	Organizational Culture, Aggresive- Defensive. Culture push the labors to serve fast, safe, normative opposition, power and competitive.	1. Ability of leaders to encourage workers to work quickly and safely. 2. Ability of leaders to encourage labor to work normatively. 3. Encourage the employment of opposition, highlighting deficiencies for improvement 4. Ability of leaders to encourage workers to work competitively. 5. Ability of leaders to encourage labor to be critical of the shortcomings, appreciate the negative outlook 6. Ability of leaders to encourage labor to control subordinates 7. Ability of leaders to encourage labor to appreciate the subordinate 8. Ability of leaders to encourage workers to obtain victory in the competition.	Ordinal
Implementation of Human Resource Management Strategy (X_3) Implementation of an integrated master plan, coordinated, linking the role of managerial and operational role of HR management	**Pre-recruitment** Recruitment planning process to obtain a description and job specification.	1. Ability of leadership to acquire data for the description / specification work 2. Ability of leaders to prepare description / specification work for recruitment	Ordinal
	Recruitment The process of obtaining a number of qualified job applicants as needed by institutions	1. Ability of the leadership to get qualified manpower as needed	Ordinal
	Internal recruitment The process of obtaining potential workforce with the placement back in training institutions	1. Accuracy of leadership conveying on job related information within the institution. 2. Accuracy of leadership doing promotion or transfer of potential power 3. Ability leadership in putting back the potential labor force	Ordinal
	External recruitment The process of obtaining workforce from an external source of training institutions	1. Ability of leaders to recruit workers from the labor market. 2. Ability of leaders to recruit labor from the unions 3. Ability of leaders to recruit labor from the professional associations 4. Ability of leader to recruit labor through the Internet	Ordinal
	Preselection Pre-selection of candidates to obtain workers with appropriate job qualification	1. Ability of leaders to provides job information 2. Ability of leaders to select prospective labor 3. Ability of leaders making the job requirements	Ordinal

	Selection The process of selecting qualified manpower as needed	1. Ability of leaders on the selection on a number of candidates for employment	Ordinal
	Written Selection Fulfillment of the basic requirements to ensure the ability of candidates for employment	1. Ability of the leaders to do the written test 2. Ability of leaders to investigate the background of applicants 3. Ability of leaders to test the competence of the candidates 4. Ability of leaders to test the interests and responsibilities of candidates for employment	Ordinal
	Pre-training The process of reviewing the factual data in accordance with the position of potential participants	1. Ability of leaders to express the needs for training 2. Ability of leaders to analyze the organization 3. Ability of leaders to analyze the competency of the candidates 4. Ability to analyze the exercise objective.	Ordinal
	Implementation of Training A process of fulfillment the labor qualification to fill the position in improving the productivity based on the pre-training	1. Ability of leaders to conduct the training program 2. Ability of instructors to provide training materials based on the curriculum 3. Ability of instructors using appropriate training methods 4. Ability of instructors use tools and training materials 5. Ability of instructor to evaluate the training	Ordinal
	Performance Assessment The process of comparing the performance with a standard and communicating the results to the workforce to determine rewards	1. Ability of leaders to assess the performance of subordinates 2. Ability to assess the performance by colleagues 3. Ability to assess the performance of superiors by multisources 4. Ability to assess the performance by the consultant 5. Ability of leaders to assess the performance of comparison method	Ordinal
	Compensation Everything that is received by the workforce, both financial and non-financial form as a reward or remuneration for his/her work	1. Ability of leaders to use the labor compensation system. 2. Ability to use the suitability of ethical minimum wage 3. Ability to use the nonfinancial of wage salary policy system 4. Ability of managers to consider the behavioral aspects	Ordinal
	Employment relationship Fostering harmonious labor relations and cooperation to improve productivity	1. Ability of leaders to implement the Act No. 13 of 2003 2. Ability to use the Act No. 2 of 2004 3. Ability to negotiate, solve problems and complaints of workers	Ordinal
The institutions' Productivity (Y) Private Job Training in the North Sumatera province	Comparison of the amount of gross profit of training operating results (output) by the number of training costs (input) within a certain period	The level of the ratio of gross profit of the operating results with the operating costs of training multiplied by 100%	Ratio

Determination of Data Sources and Methods: The data used in the study consist of two sources, namely:

- Primary data, i.e. data obtained from the private vocational training institutions by means of interviews and questionnaires with respondents refer to the representative of the population. The questionnaire with Likert ordinal scale is structured. The data obtained by taking a sample of the population. The target population is the leader/assistant director that directly responsible to the director of private vocational training institutions in North Sumatera province.
- Secondary data, i.e. data obtained from the Department of Manpower and Transmigration and Central Bureau of Statistics (BPS) of North Sumatera province.

In accordance with the purpose of research, the minimum sample size is determined through iterative technique. The subjected samples to observation are the elements that are in the population, while the population is a collection of the sampling unit that includes one or more units of the elements (Sekaran, 2000,p.255). The sampling of this study based on a sample size of Yamane (in Djalaludin, 2000, p.82), which is done by determining the value of precision (d) of 5% as follows:

$$n = \frac{N}{Nd^2 + 1}$$

Furthermore, for the allocation of private vocational training institutions based on each district/city of North Sumatera Province used the principle of proportional allocation, using the formula as follows:

$$n_i = \frac{Ni}{N} \; x \; n$$

Where:
n_i = size of sample to be taken from the center to -i
N_i = size of the center to - i
N = population size
n = total sample size allocated
d = Precision desired

It is concluded that the first and second iteration results are the same, then n = 115 of private vocational training institutions is taken in 19 districts/cities in North Sumatera province. Based on proporsionate random sampling at 19 locations throughout the population, there are 719 private vocational training institution used as the sample.

Analysis and Hypothesis Testing: The analysis is conducted to test the hypothesis in this study by using path analysis. The hypothesis testing is done by the magnitude of the estimated and calculated path coefficients based on the observed data.

3. Findings

The Correlation of Situational Leadership Behavior and Organizational Culture On Private Vocational Training Institutes: The first hypothesis is a correlation between situational leadership behavior with organizational culture on private vocational training institutes. The statistical hypothesis test as follows:

$H_{1:}$ $Px_2x_1 \neq 0$, there is a correlation between situational leadership behavior with organizational culture in private vocational training institutes.

It is found a strong correlation between the value of situational leadership behavior with organizational culture in private vocational training institutes by 0.60, means the changes of situational leadership behavior have an impact on organizational culture by 60 percent or visa versa. The hypothesis states that the value of t = 2.14 is greater than t_{table} of 1.98. This means there is a significant correlation between situational leadership behavior to organizational culture in private vocational training institutions in the province of North Sumatra. The results are consistent with the findings by Mello (2002, p.107) that mentioned leadership behaviors and organizational culture which occur as internal to a company is an important factor in increasing the strength of the productivity and profitability of the company. Furthermore Kreitner & Kinichi (2003, p.86) states of organizational culture in the operation led by the situational leadership behavior can improve the productivity of the company.

The Effect of Situational Leadership Behavior and Organizational Culture on the Implementation of Human Resource Management Strategy: The second hypothesis, there is an effect of situational leadership behavior and organizational culture on the implementation of human resource management strategies in private vocational training institutes. The test is done with path analysis. Below is the hypotheses test simultaneously:

H_1: $px_3x_1 \neq 0$, means that situational leadership behavior and organizational culture significantly influence the implementation of human resource management strategies in private vocational training institutions in North Sumatera province.

The criteria is to reject H_0 if the value of F> $F_{\alpha\ (p-1;n-p)}$. For the regression equations that being tested p = 2 and n = 115, where p is the number of parameters and n is the number of observations, with 95 percent of confidence level. The results found the value of F = 13.14 is much greater than the value of F_{table} = 3.08, then the test is significant and H_0 is rejected. There is the influence of situational leadership behavior and organizational culture on the implementation of human resource management strategies in private vocational training institutes by 0.19 or 19 percent while the influence of other variables is by 81 percent. Partial test results of situational leadership behavior and organizational culture has a significant influence on the implementation of human resource management strategies in private vocational training institutions in North Sumatera province which performed by t test shown in Table below.

Table 2: Statistical Test

Structural Parameter	Path Coefficient	T	T_{tabel}	Decision	Effect
Px_3x_1	0.23	2.14	1.98	Reject H_0	Significant
Px_3x_2	0.25	2.37	1.98	Reject H_0	Significant

Where:
X_1 = Situational Leadership Behavior
X_2 = Organizational Culture
X_3 = Implementation of Human Resource Management Strategy

The 5 percent significance level (α) test found the effect of leadership behavior partially on the implementation of human resource management strategies by 23 percent, while the influence of organizational culture by 25 percent. Based on the test results, situational leadership behavior and organizational culture have a significant effect, either simultaneously or partially to the implementation of human resource management strategies in private vocational training institutions in North Sumatera province. The implementation of human resource management strategy is supported by the situational leadership behavior and organizational culture, thus the increase productivity of private vocational training institutions in North Sumatera province will be achieved. The situational leadership behavior is the accuracy of the leadership behavior's combination of task behavior, behavior and maturity subordinate relationship. This is in accordance with the findings by Blanchard & Hersey (1993, p.84), Kreitner & Kinichi (2002, p.566), and Goodwin & Wofford (2001, p.759). Its suggest that the behavior as a manifestation of situational leadership affect the ability of a group of people to achieve the goals of the organization in accordance with the demands of the subordinate situation.

The leaders of private vocational training institutions are required to be able to influence, change and direct the actions of subordinates through cooperation and communication in order for them to work productively. Situational leadership behavior in private employment training institutions displayed by leaders with a combination of behaviors that are associated with tasks and human resources as well as subordinate maturity level (Blanchard & Hersey, 1993, p.192). Meanwhile, the culture determines the coaching and non-coaching labor organizations at private vocational training institutions in North Sumatera province in doing work with collaboration and normative belief. The organizational culture is a manifestation held assumption, accepted by all workers in the organization and determine how they feel, think and work together to improve the productivity and profitability of private vocational training institutions. The results are consistent with the opinion by Kreitner & Kinichi (2003, p.89), that there are four general manifestation of organizational culture that held in common, spoken words concurrently, work together and felt carried along in for an organization to improve the productivity of the company.

The implementation of human resource management strategy refers to an integrated master plan, coordinated and linking managerial and operational functions of human resource management that includes dimensions of proper recruitment and selection, training programs in accordance with the results of the training needs analysis, performance assessment with the right system, system viable and fair compensation and labor relations in an effort to increase productivity of private employment training institutions in North Sumatera province. The results are consistent with the opinion by Mello (2002, p.237) and Fulmer (2001, p.3) stated that the implementation of human resource management strategy that includes dimensions of recruitment, selection, training, compensation and labor relations are supported the situational leadership behavior and organizational culture which can improve total productivity of a company.

The Effect of Implementation Strategy Human Resource Management on Productivity of Private Employment Training Institute: The third hypothesis is there is significant implementation of human resource management strategies on the productivity of private vocational training institutions in North Sumatera province. The proposed hypothesis is as follows: $H_{1\,:}$ Pyx_3 # 0, means that there is an effect of the implementation strategy of human resource management on the productivity of private vocational training institutions in North Sumatera province. The results found that the implementation of human resource management strategy has a direct influence on the productivity of the training institute by 11.56 percent, while the remaining 88.44 percent is influenced by other variables. There are other variables that can improve the productivity of private vocational training institutions such as physical support, reputation and size of the vocational training institutions. The path coefficients of X_3 is 0.34 means each increase of standard deviation in the value of an average in implementation of human resource management strategy will increase the productivity of training institutions by 34 percent. An indirect effect through situational leadership behavior by 6.72 percent and the organizational culture by 3.45 percent. In total of direct and indirect effect on the implementation of human resource management strategy for productivity of training institutes is 21.73 percent. The test results influence the Pyx_3 path coefficient, shows the implementation of human resource management strategy has a significant effect on the productivity of vocational training institutions because t = 6.33 is greater than t_{table} = 1.98. The results in accordance with the opinion by Mello (2002, p.237), Noe et al. (2000, p.53), Carrell et al. (1995, p.9), Dessler (2000, p.21), Becker et al. (2001, p.37) and Falbe (1996, p.140), that the implementation of human resource management strategy with operational functions of recruitment, selection, training, performance appraisal, compensation and labor relations is contribute to the increased productivity of labor training institutions because of human resources able to master the technology to make the quality of goods and services.

Influence of Situational Leadership Behavior, Culture and Implementation Strategy Organization of Human Resource Management on Productivity Private Employment Training Institute: The fourth hypothesis is the situational leadership behavior, organizational culture and the implementation of human resource management strategy affect the productivity of private vocational training institutes. The hypothesis test is done using a statistical test of path analysis of each variable. The proposed of simultenous hypotheses are as follows:

H_1: $Pyx_3 \neq {}_0$, means that situational leadership behavior, organizational culture and implementation of human resource management strategies simultaneously influence on the productivity of training institutions. Based on the results of determinant coefficient that situational leadership behavior, organizational culture and implementation of human resource management strategies simultaneously have a significant effect on the productivity of training institutions by 83 percent and the influence of other variables is by 17 percent. Simultaneouly the test is significant with F value = 180.65, it is greater than the F_{table} = 2.69, thus to reject the H_0. Partially, the influence of situational leadership behavior, organizational culture and the implementation of human resource management strategies on the productivity of labor training institute are seen from the path coefficients of each variable, namely; i) situational leadership behaviors' path coefficient is 0.52, indicated that every increase of one standard deviation of situational leadership behavior will increase the value of the institution productivity by 52 percent; ii) organizational culture path coefficient is 0.26, indicate that every increase of one standard deviation of organizational culture will increase the value of 26 percent of productivity training institutions; iii) the human resource management strategy has the path coefficient of 0.34, this indicates that every increase of one standard deviation or the implementation of human resource management strategy will increase in productivity of private vocational training institutions by 34 percent.

The results of statistical tests of partial influence of situational leadership behavior, organizational culture and the implementation of human resource management strategies on the productivity of private vocational training institutions in North Sumatera province shown in Table below:

Table 3: Statistics Test Results

Structural Parameter	Path Coefficient	T	T_{tabel}	Decision	Effect
Px_3x_1	0.52	10.45	1.98	Reject H_0	Significant
Px_3x_2	0.26	5.26	1.98	Reject H_0	Significant
Py_{X3}	0.34	7.78	1.98	Reject H_0	Significant

Where:
X_1 = Situational Leadership Behavior
X_2 = Organizational Culture
X_3 = Implementation of Human Resource Management Strategy
Y = Productivity Private Employment Training Institute, 2004.

Partially, the situational leadership behavior has a significant effect on the productivity of private vocational training institutions because t is 10.45 greater than t_{table} = 1.98. Then, partially the organizational culture significantly influence the productivity of private vocational training institutions because t = 5.26 is greater than t_{table} = 1.98. Lastly, partially the implementation of human resource management strategy has a significant effect on the productivity of private vocational training institutions because t = 7.78 is greater than t_{table} = 1.98. The direct and indirect influence of situational leadership behavior, organizational culture and the implementation of human resource management strategies on the productivity of private vocational training institutions, namely (i) the magnitude of the direct influence of situational leadership behavior determines the productivity of labor training institutions by 27.04 percent and 8.11 percent through the culture of the organization, through the implementation of human resource management strategy by 6.72 percent. The total effect of leadership behaviors determine the productivity training institutes is 41.87 percent; (ii) the magnitude of the direct influence of organizational culture determines the productivity of training institutions by 6.86 percent, through situational leadership behaviors is 8.11 percent and through the implementation of human resource management strategy is 3.45 percent. The total effect of organizational culture determines the productivity of training institute is 19.32 percent; (iii) the magnitude of the direct effect of the implementation of human resource management strategies to changes in the productivity of labor training institute is 11.56 percent, through situational leadership behaviors by 6.72 percent and 3.45 percent through the organizational culture. The total effect of the implementation of human resource management strategy determines changes in the productivity of labor training institute at 21.73 percent. It is found that situational leadership behaviors contribute the largest direct influence by 27.04 percent of the productivity of labor training institutions.

Based on the above results, it can be concluded that the growth of labor force still require job training in private vocational training institutions, which is a good prospect for private vocational training institutions. This prospect requires leaders of training institutions to improve productivity in operations and delivery of training services that require a level of situational leadership behavior according to the situation of the subordinate maturity in accordance with the opinion of Melo (2002), the implementation of human resource management strategy contributes to corporate strategy. The situational leadership behavior correlated strongly to the organizational culture. If there is a change in the level of ability of situational leadership behavior, it will have an impact on the implementation of organizational culture change. These two variables are interrelated as well as the donation that has a significant impact on the implementation of human resource management strategies and productivity of private vocational training institutions in North Sumatera province. The results are consistent with the opinion by Noe et al. (2000, p.53) and Marks et al. (1998, p.61) states that the implementation of corporate strategies require human resources who have the

knowledge, skills and attitudes which have contribution as the determinant of work towards improved performance, productivity and profitability of the company.
The situational leadership behavior and organizational culture have an internal relation to the company used as the important factors in increasing the productivity. Both are either simultaneously or partially have a significant effect on the implementation of human resource management strategy which encourage workers in having responsibilities, normative beliefs and motivation to work and possess the competence to improve the productivity of private vocational training institutions in North Sumatera province. The results are consistent with the opinion by Mello (2002) that stated the implementation of human resource management strategies can effectively improve the performance and productivity, labor satisfaction and customer satisfaction, and increase the value of securities to shareholders. The situational leadership behavior, organizational culture and the implementation of human resource management strategies simultaneously have a significant effect for 83 percent to the increase in the productivity of private vocational training institutions in North Sumatera province. Partially, the situational leadership behavior determines the productivity of private vocational training institutions by 52 percent compare to 26 percent of the application of the organizational culture and 34 percent of the implementation of human resource management strategies.

The direct effect on the productivity of situational leadership behavior vocational training institutions is by 27.04 percent more than the organizational culture and the implementation of human resource management strategy. The indirect effect of situational leadership behavior through organizational culture is similar as the indirect effect of organizational culture through situational leadership behavior on the productivity of private vocational training institutions which is 8.11 percent. The situational leadership behavior and organizational culture are the two variables that interrelated and supported the improvement of the productivity of private vocational training institutions in North Sumatera province. In general, the behavior of situational leadership, organizational culture and the implementation of human resource management strategies in private vocational training institutions in North Sumatera province rated somewhat higher. The human resources sufficiently competent and driven by situational leadership behavior and implement constructive organizational culture can improve the productivity of private vocational training institutions in North Sumatera province. The level of productivity of private vocational training institutions in North Sumatera province is generally considered sufficient whereby in 2012 there is an increase of 3.93 percent from the year 2011, unless the contribution to the public training institutions, namely the establishment of a special job fairs, information systems training and scholarships are assessed still below par. The results showed that the physical environment support of private vocational training institutions are generally sufficient.

The observations and interviews show that the relationship of cooperation of the training institutions with the industry for the development of training and apprenticeship programs and assist the placement of graduates generally is low. The training program conducted by private vocational training institutions in North Sumatera province has not been developed according to the needs of the industry, so that the qualifications of graduates and the placement of graduates are low respectively. The findings of this study is rational because the service industry in the operation and delivery of vocational training services requires a high level of situational leadership behavior and constructive of application of organizational culture and effectiveness of the implementation of human resource management strategy, in which can improve the productivity of private vocational training institutions in North Sumatera province. Further research can be developed by comparing the vocational training institutions belong to the community with job training agencies of government as well as the additional of other variables on productivity, quality and profitability of private vocational training institutions in North Sumatera province.

4. Conclusion and Recommendations

Based on the results of research, it can be concluded as follows:

- The situational leadership behavior and organizational culture in private vocational training institutions in North Sumatera province generally considered high. The largest value is obtained by the situational leadership behavior of delegation dimension, while the greatest value of the organizational culture is a constructive organizational culture. The implementation of human resource management strategy that includes recruitment, selection, training, performance appraisal, compensation and labor relations are generally considered sufficient. The productivity of private vocational training institutes is considered sufficient unless the contribution of vocational training to public institutions such as the presence of specific labor market and scholarships rated to be low. The cooperation of private vocational training institutions with industry in order to graduate placement, apprenticeship programs and the development of training programs considered low.

- The situational leadership behavior significantly correlated with organizational culture through the dimensions of telling, selling, participating and delegating. The organizational culture is interrelated and support the implementation of human resource management strategy in increasing the labor productivity of private institutions in North Sumatera province.
- The situational leadership behavior and organizational culture have a significant effect simultaneously and partially on the implementation of human resource management strategies in private vocational training institutions in North Sumatera province. The situational leadership behavior is able to affect more than the organizational culture in the implementation of human resource management strategy. The organizational culture motivates a group of workers in the completion of tasks with achieving objectives through cooperation, normative, innovative, creative and support the implementation of human resource management strategy which increase the productivity of private vocational training institutes.
- The implementation of human resource management strategies has a significant effect on productivity improvement of private vocational training institutions in North Sumatera province. The competent human resources are able to apply technology in increasing productivity to produce quality graduates.
- The situational leadership behavior, organizational culture and the implementation of human resource management strategy that includes recruitment, selection, training, performance appraisal, compensation and labor relations have a significant effect simultaneously and partially to the increased productivity of private vocational training institutions in North Sumatera province.
- The private training institutions in North Sumatra province does not have a program to deal with complaints against service training. Handling the trainees' complaints is required to increase training services.

Recommendation: Based on the research results and conclusions, there are proposed recommendations as follows:

- The institute of job training need to pay more attention to the situational leadership behavior by achieving a combination of task behavior, behavior and maturity subordinate relationship through; (i) telling dimension by setting clear tasks and responsibilities, designing productive ways of working, giving detailed instructions, emphasizing cooperation to control the situation of subordinate maturity level; (ii) selling dimensions, to include suggestions of subordinates in decision making and goal setting of vocational training institutions, providing ease of consultation and provide guidance as well as controlling the effective work in situations of low to medium maturity subordinates; (iii) participating dimensions include suggestions subordinates in decision making and goal setting, always communicating with subordinates, cooperation, motivate and provide guidance and effective controls on the maturity level is moderate to high; (iv) delegating dimensions to give sufficient guidance and counseling as well as delegate authority and responsibility to the subordinates.
- The institute of private job training needs to pay more attention to the level of implementation of constructive organizational culture because it will affect the implementation of human resource management strategy and increase the productivity of private vocational training institutions.
- In order to increase productivity, the private vocational training institutions should pay more attention to the implementation of human resource management strategy that include; recruitment in accordance with manpower planning, selection according to job requirements, manpower training in accordance with the results training assessment needs, objective performance appraisal, adequate and equitable compensation system, create a harmonious labor relations, comply with applicable laws and regulations and the establishment of a formal association of trade unions.
- The institute of private job training needs to further improve the training services to the community by providing appropriate training materials in accordance with the results of the analysis of training needs, provides professional instructors and enhances the works' contributions to the public training

institutions such as the presence of specific labor market and increase scholarships cooperation between vocational training institutions and industry.

- To increase the contribution to society, the private job-training institute shapes the labor market in the effort to find graduates, develops the training information systems and provides scholarships to potential students.
- The institutions of private job training need to pay more attention to the maintenance and renovation of the physical environment such as building facilities, training structures and equipment, rooms, bathrooms, parking, environmental cleanliness and parking arrangements.
- The author suggests, further research is expected to find other factors beyond the variables of situational leadership behavior, organizational culture and the implementation of human resource management strategies that affect the productivity, quality and profitability of private vocational training institutions in order to enrich the knowledge economy, particularly human resource management and organizational behavior.

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An Analysis of the Effects on Application of Management Accounting Information Systems and Quality Management Accounting Information

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Abstract: The study aims to prove empirically; (i) the influence of the business environment for the application of management accounting information systems; (ii) the influence of ethics on the application of management accounting information systems; (iii) the influence of organizational culture on the implementation of management accounting information systems; and (iv) the effect of the application of management accounting information system on the quality of management accounting information. The motivation of this study due to a phenomenon of having an integration on management accounting information system whereby the information generated is not qualified, as well as the uncertainty of business environment, ethics and organizational culture which are yet to have optimal conditions. The method used is explanatory research with a survey approach, using a statistical tool of SEM Partial Linear Regression, with the aim to obtain facts concerning the occurance of phenomena, seek actual and systematic information on the application of management accounting information systems, and the quality of accounting information management. The results showed that all variable of the business environment, ethics, organizational culture affect the application of accounting information management system; and the application of management accounting information system affects the quality of information management accounting.

Keywords: *Business Environment, Ethics, Organizational Culture, Application of Management Accounting Information System, Quality of Information Management Accounting*

1. Introduction

The service industry is one industry that progressing very rapidly and have a very important role in the Indonesian economy. Indonesia has many service sector industries such as the hospitality, tourism, restaurants, transportation, telecommunications, banking services and other services. These sectors are experiencing significant growth from year to year. The most potential industry that has significant growth is the hospitality industry. Hotel is a type of accommodation that use some or entire buildings that provide lodging, food and beverage and other supporting services for the managed common commercially. The progress of the hospitality industry is highly driven by the development of the tourism industry, business, easy access to transport and supported by adequate infrastructure. The growth of the hospitality business in Indonesia seem more spectacular, it is seen in the vigorous number of business people of this industry that have extended their business to various regions in Indonesia, including North Sumatra such to build new hotels in an area that is fairly potential as well as in tourist area. At first, the growth of the hospitality industry is more focused on the development of the tourism sector. It can be seen from the establishment of the hotel resorts that is closely established in a tourist attraction. These hotels provide income in the form of foreign exchange for the country and creation of new jobs for the community. However along with the economic development, the hotel is not only used as a supporter of the tourism industry but has shifted to one of the business-oriented service industry. Therefore, a competition is a very important factor to be considered by the management in running the company to compete globally. Each product created by a company not merely anticipating on how it's penetrated to the market but more unlikely to compete closely with similar products in the same industry that constantly introducing a new innovation.

In understanding the challenges and opportunities in the hospitality industry, the managers in this sector requires information that brings together financial and non-financial data which are relevant to decision-making in order to perform various breakthroughs and continuous innovations. The businessmen in this sector should understand that they can not rely on primary products (core product) in order to survive and thrive beside to provide excellent service to hotel guests, but they also required to create additional product (augmented products) to support the main products offered to hotel guests. The financial and non-financial data information generated from the financial management accounting information system which it's development greatly influenced by changes in the corporate environment. Most management decisions require information that unifies financial and non-financial data conventionally resulted from the application of accounting information systems (AIS) and management information systems (MIS) which functioned independently. Both of these data sets will then be integrated and reported to the manager. The task of providing the managers on integrated information will be inefficient and costly when the information support system is not integrated. Moreover, the lack of coordination between the financial and non-financial system can produce bad management decisions.

Conventionally, the design of management accounting system has a orientation to the internal financial information organization based on historical data. With the increasing problem-solving task faced by the management, the management accounting system's design not only oriented to the financial data but to external and non-financial data (Mia & Chenhall, 1994). Mock (1971) suggested that the information has potential value, because it can make a direct contribution in determining the choice, managers can improve the understanding of the real world and be able to identify the relevant activities. Chenhall and Deigan (1986) found empirical evidence that there are four characteristics of useful information as perceived by managers produced by the management accounting system, namely the scope of the breadth, timeliness, aggregation, and integration. The breadth of scope of information provides information about external factors and internal companies, non-economic and economic information, estimates the incidences that may occur in the future and environmental aspects. The punctuality shows the interval between the request for information with the desired information presentation and reporting frequency information. While, the timeliness of the information would affect the ability of managers to make the right decision. Timely information will be valuable if delivered before losing its capacity to influence decisions that will be made by the manager as well as will make the manager able to deal with environmental uncertainty being faced effectively.

The aggregated information is the information that can reflect the functional area of responsibility of the managers or in other words it directs managers to become more responsible in each area. In this aggregated information, the implementation of a form of formal policy (such as discounted cash flow) is taken into account or information analytical models that are based on the final results of the functional areas (such as marketing, production) or based on time i.e monthly or quarterly. With clear information about the area of functional responsibility of the manager, it will reduce the likelihood of conflict. If the aggregated information presented properly, it will provide meaningful input for managers in the decision-making process because the time needed to evaluate of receiving the information is less. Thus the manager's expectation on performance can be increased due to use of integrated information. The characteristics of the available information will be effective if in accordance with the requirements of the user of the organizations. This is in line with the contingency approach proposed by Otley (1980) that the availability of the respective characteristics of management accounting information is not the same for all situations.

The environment is the physical and social factors that directly serve as a consideration in the decision-making in the organizations (Duncan, 1972). Abernethy and Guthrie (1994) states that the application of management accounting information systems in companies affected by the uncertain environment, therefore environmental uncertainty is applied as a factor that can influence the management strategy, information systems and accounting (Chenhall & Deigan 1986). While Vanevenhoven (2008 p. 10) refers the environment as the set of changes of all objects in whose attributes are changed by the behavior of the system gap. The environment embedded with uncertainty, while the source of uncertainty used as the external environment of the company that can not be predicted (Milliken, 2001) i.e. suppliers, competitors, government, distributors and customers. Similarly Khan and Jain (2007) mentioned that the uncertainty can be added in the possibility of shifting consumer, actions of competitors, technological developments and changes in the economic or political environment. Milliken (2001) suggest that a changing of environment, complexity and heterogeneity makes the environment less predictable. An increasing uncertain global economy with rapid technological advances, therefore customers are constantly changing, deregulation increases and demands to leave the trade barriers.

Given the importance of the external environment for a company, it is necessary to perform the alignment between the capabilities of companies with environmental changes that occur continuously. According to Boyd et al., (1993), there are two approaches to measuring the external environment, namely; the objective environmental perceptual environmental measures. Measurement of the external environment with the objective approach conducted using data such as industry data, industry sales growth and industry concentration ratio (Boyd et al., 1993). While the measurement of the external environment with the subjective approach is done by using attention and interpretation of managers as key informants from the environment faced by the company. This allowed the researchers describe the external environment from the members' perspective of the organization in this case managers and top managers (Boyd & Fulk, 1996). The success or failure of a company is largely influenced by human administrators. The same environment that is perceived by a company as something uncertain and complex can be seen as static environment and easily understood by other companies, even the managers within the same company saw the environment in different ways. This difference could arise based on the background, education, and functional parts where the managers work.

On the other hand, there is a dilemma on the accountant ethical management whereby the management accountant asked to provide inappropriate information (Hansen & Mowen, 2007, p.20). For an example, the management accountant asked by his/her boss to prepare information/reports that are believed as something that biased and untrue, thus the management accountants are in the last row in the fight for honest behavior due to strong pressure from his/her superiors (Atkinson et al., 2012, p.20). Atkinson et al. (2012, p.19) argues that ethics is a moral system or set of values used to set the behavior of individuals. Furthermore, Atkinson stated that efforts are being made to establish the universal values' systems are not progressing because each individual is guided by different ethical systems, while the organizations will be greatly influenced by legal or social sanctions generated by the employees' unethical behavior. Furthermore, Atkinson et al. (2012, p.19) argues that ethical errors can have a major impact on the organization and its employees as happened by the staff of KPMG in Unites States where they have to pay a fine of $500 million and received legal sanction because some employees involved in the preparation of the dubious tax protection for its clients. Similarly mentioned by Hansen and Mowen (2007, p.20) that a series of financial scandals is occurs involving Enron, Tyco International, WorldCom and other companies that trigger special attention on business ethics.

The ethical behavior involves selecting the correct actions, appropriate and fair (Hansen & Mowen, 2007, p.20). It is important for companies to have ethics policies in the application of its information system (Loudon & Loudon, 2008, p.152) as the framework to draw certain attitudes that must be followed by all employees where they touch and move with fellow employees or other elements in a corporate environment because human behavior can affect the accounting data and business decisions (Lubis, 2010, p.15). Similarly as stated Kallapur and Krishnan in Chapman et al. (2009, p. 1400) that ethics is an influential in accounting. This is supported by Brooks and Dunn (2010, p. 350) that it is important to adhere the ethical values which have been determined for professional accountants who work in management, as an employee or a consultant. Similarly revelead by Duska et al. (2011, p.230) that the practitioners of management accounting and financial management have an obligation to the community, their profession and organizations to maintain the highest standards of ethical codes.

To improve the ethical behavior of its employees, many organizations formulate and institutionalize ethics control system (Atkinson et al., 2012, p.19). The Institute of Management Accountants – IMA, announced a code of ethical standards for management accountants. The standards are aligned with the intent to achieve the objectives of management accounting (Garisson et al., 2011, p. 30) and make it as a code of conduct and action to build a system that oversees, spur, and strengthen individual behavior that is consistent with the set of organization's code of ethics (Atkinson et al., 2012, p.21). The ability of a professional to be able to understand and be sensitive on the presence of ethical issues in the profession is strongly influenced by the society, organization or places wherever he/she works as well as his/her personal experience (Hunt & Vitell, 1986 in Khomsiyah and Nur, 1998). When individuals join in an organization, they bring their own values and beliefs and quite often those values and beliefs help individuals succeed in the organization, however they need to learn how companies are doing something (Luthon, 2005, p.110). The organizational culture relates to how employees understand the characteristics of an organization. It seeks to measure how employees view their organization so it is expected that individuals who have different backgrounds or levels will understand the organization with similar meaning (Robbin & Judge, 2007).

The organizational culture involves expectations, values, and attitudes together, it gives effect to the individual, group, and organizational processes, while the organization is able to operate efficiently when there is a value which believed to be shared among employees (Ivancevich et al., 2011). Meanwhile, the culture is an internal environment that seen and felt by those who work in it which illustrates how human resources to learn in doing things whereby it often considered as an absolute strength (Azhar, 2008, p.60). A similar argument is mentioned by Ginanjar (2010) that the problems arise in a multicultural culture where many public officials who do not qualify, thus the public services, social and economic life of local residents are getting worse. The involvement in the process of implementation of information systems is seen as an important factor to bring a change of attitude which, in turn, facilitate organizational change. Any changes in information systems forcing the human resources to do something different than usual. Any attempt made will keep pushing the old information system persist, therefore the information system designers can not change the norms when designing an information system for enterprises' organizations which has become a culture in the organization of the company (Azhar, 2008, p.60). Similarly revealed by Leidner and Kayworth (2006) that understanding the culture used as an important action to assess the information system because the every culture levels can affect the successful of information systems' implementations within an enterprise. The culture can shape and provide guidance in developing information systems in organizations and it plays an important role in the managerial process, either directly or indirectly influence the information systems (Leidner & Kayworth, 2006).

According to Claver et al. (2001), the human is an important component in information systems, so that it can be considered that the organizational culture related to information systems. By understanding the human behavior that is influenced by something in an organization, the potential impact of the implementation of information systems can be clarified (Cabrera, 2001). Based on the phenomena that have been disclosed above, the author has an interest to study on the effect of business environment, ethics, culture, application of management accounting information systems and quality of management accounting information in the hotels service industry companies in North Sumatera.

2. Methodology

The scope of this research is the business environment, ethics, organizational culture, the application of management accounting information systems and quality management accounting information. While the research method employs is an explanatory research that used to obtain a description, a systematic picture, factual and accurate information on the facts, the nature and relationship between variables (Sekaran & Bougie, 2010, p. 123).

Operationalization of Variables

Table 1: Operationalization of Variables

Variable	Dimension	Indicator	Question No.	Scale
Business Environment (Duncan, 1972)	Internal Environment	Organisation Personnel and Functions, Staff Unit, and Organization Levels.	1-8	Ordinal
(X_1)	External Environment	Customers, Suppliers, Social Competitors, Politics and Technology	9-24	Ordinal
Ethics (X_2) Management Accountant Professional Ethics, *Institute Of Management Accountants,*	1. Competence	1. Maintaining professional competence through the development of knowledge and skills on an ongoing basis 2. Carry out professional duties according to the laws, regulations and technical standards 3. Prepare complete reports, clear	25-42	Ordinal

(Hansen and Mowen, 2004, p.22; Garrison et al., 2008, p.30-31)	2. Confidentiality	and provide appropriate recommendations, and provide information that is relevant and reliable	43-48
	3. Integrity	1. Refrain from disclosing confidential information. 2. Inform subordinates about the confidentiality of information obtained and monitor subordinates to maintain the confidentiality. 3. Refrain from using confidential information obtained for personal use	43-48
	4. Objectivity	1. Avoid any conflict of interest and provide advice to the parties involved in the conflict. 2. Refrain from engaging in activities that can reduce the ability to perform tasks ethically. 3. Reject any form of gift, souvenir, or hospitality which may affect the action which inhibits either the achievement of organizational goals actively or passively. 4. Recognize and communicate the professional limitations or other constraints that would preclude responsibility assessment. 5. Communicating favorable and unfavorable information and give an opinion or professional judgment. 6. Refrain from engaging or supporting activities that could discredit the profession.	49-59
		1. Communicate information fairly and objectively. 2. Disclose all relevant information to affect users on the report, comments, and recommendations presented	

Organization Culture (X_3) (Luthon, 2005, p. 110; Champoux, 2003, p.71; Robbins and Judge, 2007, p.511)	*1) Artifacs* *(*Luthon, 2005, p.110, Champoux, 2003, p.71)	1. The presence of human interaction within the company using the same terminology 2. The existence of mutual respect in interactions 3. The presence of a conducive organizational climate and the presence of adequate physical layout	25-42
	2) *Norms* (Luthon, 2005, p.110)	4. The presence of strict rules to interact within the organization.	
	3)Dominant Value (Luthon, 2005, p.110, Champoux, 2003, p.71, Robbins and Judge, 2007, p.511)	The presence of behavioral guidelines/standards; guidance on the work to be done.	
	4) Basic Assumption (Champoux, 2003, p.71)	1. Produces high quality products. 2. It has a low rate of absenteeism. 3. The presence of high efficiency. 4. The degree to which the employee is able to work and compete aggressively.	
		1. The presence of a good relationship between the individual in organization. 2. The presence of a good relationship with the elements of organization's external environment	
Application of Management Accounting Information Systems (Y) (DeLone & McLane, 2008)	1) *System Quality*	1. The presence of ease in the use of the system. 2. The presence of the reliability of the system	43-48
	2) *Service Quality*	1. The ability of the system to respond to the needs. 2. The system has timeliness in processes	
	3) *System Use*	Level of use and purpose of use	
Quality of management accounting information (Z) (McLeod, 2007, p.65; Morris & Chenhal, 1985)	*1) Relevance* (McLeod, 2007, p.65)	The presence of the suitability of the generated information as required.	49- 59
	2) Accuracy (McLeod, 2007, p.65)	The generated information reflect the actual situation.	
	3) Completeness (McLeod, 2007, p.65)	The information provided must be complete	
	4) Timeliness (McLeod, 2007, p.65;	Information is available or existed at the time the information is	

Morris and Chenhal, 1985)	needed.
5) Broadscope (Morris & Chenhal, 1985)	Have information that can estimate future events.
6) Aggregation (Morris & Chenhal, 1985)	Information presented is precise and complete.
7) Integration (Morris & Chenhal, 1985)	Information reflects the relation between parts or sections

Population dan Sample: Population refers to a whole group of people, events or things of interest that intended to be analyze in a research (Sekaran & Bougie, 2010, p. 121). In determining the members of population if the subject is less than a hundred, it suggested to take all the number of population which is called as a population study (census). Based on the above statement, thus the sample of the target population in this study were carried out by taking the entire hospitality services' companies in North Sumatera province with total of 32 hotels where it is used as the unit of analysis. Furthermore, the respondents in this study is the manager of the hotel, cashier, customer service, staff in accounting and IT departments using a questionnaire as a tool in collecting the data. Meanwhile, the methods in collecting data used is a survey method.

Instruments Measurement: The validity test is done to measure the statements contained in the questionnaires. A statement is valid if the statement is capable of measuring what is to be measured and reveal on to be disclosed. While, the reliability test refers to an index that shows the extent of the measuring instrument can be trusted or can be reliable. It is to be stable and reliable when the use of such measuring instruments repeatedly give similar values (Singarimbun & Sofian Effendi, 1995, p.138).

Analysis and Hypothesis Test: The analysis used to test the hypothesis in this study is Structural Equation Modeling (SEM) using a program tool of Analysis of Moment Structure (AMOS) version 16 and estimating the parameters in the model adopted by the method of Partial Least Square (PLS) on the basis of the variance. SEM is a set of statistical techniques that allow the testing of a set of relationships that are relatively "complex" simultaneously. For purposes of analysis, since all variables are in ordinal scale, while the use of path analysis requires the data with the interval measures, then the ordinal data is transformed into interval data via the Method of Successive Interval.

3. Findings

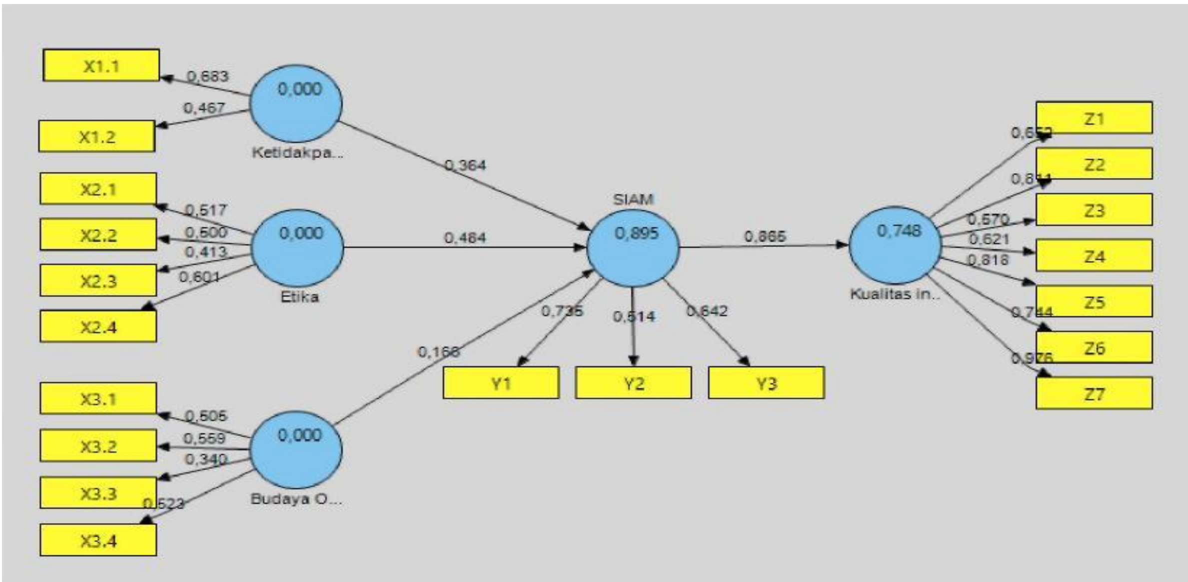
Questionnaire Distribution Return Rate: With regard the questionnaire return rate, it suggests that the rate of return of 30% considered a good rate, and will be even better when it reaches 70%. Thus, the questionnaire return rate of 96.09% in this study is a very good return rate as depicted in Table 2 below:

Table 2: Questionnaire Distribution Return Rate

Total Respondent	*Questionnaire Distributed*	*Questionnaire Return*	*Non-analyzed Questionnaire*	*Analyzed Questionnaire*
256	256	246	11	235
	100%	96.09%	4.29%	91.79%

Influence of Business Environment, Ethics, and Organization Culture on the Implementation of Management Accounting Information System and its Impact on the Quality of Management Accounting Information: To answer the research problems related to the influence of the business environment, ethics and organizational culture on the implementation of management accounting information systems and the effect of the application of management accounting information system on the quality of management accounting information, this study used Structural Equation Modeling (SEM) approach Partial Least Square (PLS). The consideration of using Partial Least Square (PLS) due to a large number of samples. The unit analysis of the sample on hospitality services company is as many as 32 hotels. The results of the hypothesized full path diagram model is obtained using the Smart PLS 2.0 as follows:

Figure 1: Path Analysis Diagram



The structural models in this study consists of two sub-structure, the first model is the influence of the business environment, ethics and culture organization of the implementation of management accounting information systems; and second model is the influence of the management accounting information systems on the quality of management accounting information.
The results obtained for the first structural model is as follows:

$$Y = 0.364X_1 + 0.484\,X_2 + 0.168\,X_3 + 0.105$$

The results of multiple regression above, can be described as follows:

- Any increase of one unit in X_1 (business environment) causes Y (application of management accounting information systems) rose by 36.4% or 36.4 units.
- Any increase of one unit in X_2 (ethics) causes Y (application of management accounting information systems) rose by 48.4% or 48.4 units.
- Any increase of one unit in X_3 (organizational culture) causes Y (application of management accounting information systems) rose by 16.8% or 16.8 units.

The structural equation model for the effect of the application of management accounting information system on the quality of management accounting information is as follows:

$$Z = 0.866\,Y + 0.252$$

A simple regression result above can be explained as follows:
Any increase of one unit in Y (application of management accounting information systems) causes the Z (quality of management accounting information) rose by 86.5% or 86.5 units.

The results of the path diagram of the overall model will describe the magnitude of the path coefficients and statistical t-test values for each hypothesized pathway structure. An evaluation of the model is done by looking at the results of the measurement model (outer model) and the structural model (inner model) from the investigated models.

The Effect of Business Environment on the Application of Management Accounting Information Systems: The business environment is hypothesized to affects the application of management accounting information system. The results of significance test of the hypothesis as follows:

Ho.γ1 = 0: The business environment does not affect the application of management accounting information systems.
Ha.γ1 ≠ 0: The business environment affects the application of management accounting information systems.

Table 3: Significance test of the Effect of Business Environment on the Application of Management Accounting Information Systems

Path Coefficient	t	$t_{-critical}$	Conclusion
0.364	2.558	1.96	Significant

The t-test value of the path coefficients on business environment variable to the application of management accounting information system is 2.558 greater than $t_{-critical}$. It concludes that the business environment significantly influence the implementation of management accounting information systems. Based on the values contained in the structural model of the path diagram between the latent variables, it can be seen the influence the business environment on the application of management accounting information systems. The business environment directly influence the application of management accounting information system for (0.364 x 0.364 x 100%) = 13.2%. So regardless of the relationship with other variables, the business environment provides influence of 13.2% on the application of management accounting information systems. While the business environment influences indirectly to the application of management accounting information systems because of the relationship with the ethics by (0.364 × 0.829 × 0.484 × 100%) = 14.6% and business environment influences indirectly to the application of management accounting information systems due to relationship with organizational culture by (0.364 × 0.786 × 0.166 × 100%) = 4.8%. The magnitude of the effect of the business environment for the application of management accounting information systems is 32.6%.

The magnitude of the determinant coefficient or contribution of business environment to the application of management accounting information system is 32.6%. The business environment either directly or indirectly as through other exogenous variables (ethics and organizational culture) contributed partially to the application of management accounting information system by 32.6%. These results indicate that the business environment is one of the factors that may play a role in determining the application of management accounting information systems. This is in accordance with the findings mentioned by Ajibolade (2010) states that environmental factors influence the application and design of management accounting information system. The quality of the application of management accounting emphasis on the organization's ability to adapt to changes in the corporate environment both internally and externally.

The Effect of Ethics on the Application of Management Accounting Information System: The ethics hypothesized to affect the application of management accounting information systems. Below are the results of significance test of the hypothesis:

Ho.γ2 = 0: Ethics does not affect the application of management accounting information system.
Ha.γ2 ≠ 0: Ethics affects the application of management accounting information system.

Table 4: Significance test of the Effect of Ethics on the Application of Management Accounting Information Systems

Path Coefficient	t	$t_{-critical}$	Conclusion
0.484	3.505	1.96	Significant

The t-test value of the path coefficients on ethics variable to the application of management accounting information system is 3.505 greater than $t_{-critical}$. It concludes that the ethics significantly influence the implementation of management accounting information systems. Based on the values contained in the structural model of the path diagram between the latent variables, it can be seen the influence the ethics on the application of management accounting information systems. The ethics directly influence the application of management accounting information system for (0.484×0.484 ×100%) = 23.4%. So regardless of the relationship with other variables, the ethics provides influence of 23.4% on the application of management accounting information systems. While the ethics influences indirectly to the application of management accounting information systems because of the relationship with the business environment by (0.484 × 0.829 × 0.364 × 100%) = 14.6% and ethics influences indirectly to the application of management accounting information systems due to relationship with organizational culture by (0.484 × 0.786 × 0.364 × 100%) = 5.7%. The magnitude of the effect of the ethics for the application of management accounting information systems is 43.7%.

The results showed that the ethics affect the application of management accounting information systems by 43.7% which indicate that ethics is one of the factors that may play a role in determining the application of management accounting information systems. The ethics used by individuals to regulate their behavior, however, ethical errors can have major implications for the employees and organization. It is thus important to maintain ethics as moral framework when providing information to management as the output of management accounting information system. So that ethics is a strength for the application of management accounting information systems. Meanwhile the magnitude on the contribution (coefficient of determination/R^2) of exogeneous variables (business environment, ethics and organizational culture) simultenously on the endogeneous variable of application of management accounting information system by 89.5%. The rest of 10.5% is influenced by other variables not examined in this study.

These results indicating that ethics used as one of the factors which may play a role in determining the application of management accounting information system is consistent with the findings mentioned by Kallapur and Krishnan in Chapmant et al. (2009, p. 1400) that ethics is an influential in accounting. This is supported by Brooks and Dunn (2010, p. 350) that it is important to adhere the ethical values which have been determined for professional accountants who work in management, as an employee or a consultant. Similarly revelead by Duska et al. (2011, p.230) that the practitioners of management accounting and financial management have an obligation to the community, their profession and organizations to maintain the highest standards of ethical codes. A study by conducted Vidya and Staehelin (1995) showed that there are some general approaches that can be used on cases of ethics in management accounting, while Bampton and Cowton (2002) revealed that it is important to do and discover aspects of ethics in management accounting. The importance of ethics in managerial accounting is geared towards business potential success or failure of a business.

The Effect of Organizational Culture on the Application of Management Accounting Information System: The organizational culture hypothesized to affect the application of management accounting information systems. Below are the results of significance test of the hypothesis:

Ho.$\gamma 3 = 0$: Organizational culture does not affect the application of management accounting information system.
Ha.$\gamma 3 \neq 0$: Organizational culture affects the application of management accounting information system.

Table 5: Significance test of the Effect of Organizational Culture on the Application of Management Accounting Information Systems

Path Coefficient	t	$t_{-critical}$	Conclusion
0.166	2.257	1.96	Significant

The t-test value of the path coefficients on organizational culture variable to the application of management accounting information system is 2.257 greater than $t_{-critical}$. It concludes that the organizational culture significantly influence the implementation of management accounting information systems. Based on the values contained in the structural model of the path diagram between the latent variables, it can be seen the influence the organizational culture on the application of management accounting information systems. The organizational culture directly influence the application of management accounting information system for

(0.166×0.166 ×100%) = 2.8%. So regardless of the relationship with other variables, the organizational culture provides influence of 2.8% on the application of management accounting information systems. While the organizational culture influences indirectly to the application of management accounting information systems because of the relationship with the business environment by (0.166 × 0.786 × 0.364 × 100%) = 4.8% and organizational culture influences indirectly to the application of management accounting information systems due to relationship with ethics by (0.166 × 0.786 × 0.484 × 100%) = 5.7%. The magnitude of the effect of the organizational culture for the application of management accounting information systems is 13.2%.

The results showed that the organizational culture affects the application of management accounting information systems by 13.2% which indicate that the organizational culture strengthen the application of management accounting information systems in the hotel services companies in North Sumatra. The organizational culture involves expectations, values, and attitudes that gives an effect to the individual, group, and organizational processes, so the organization is able to operate efficiently. The stronger the organizational culture in an organization, it will support the application of management accounting information systems. The organizational culture in hotel services companies supporting the application of management accounting information system, in which it been used as a tool to provide coordination, control and achieving efficiency in the business process.

The nation's corporate culture differences can result in different management accounting practices across the country. This asserted by Wagdy (2001, p.5-6) that the culture influences the selection of accounting systems and practices, while Schroeder et al. (2011) added that the culture of the country not only affects business practices but also the accounting system. Furthermore, Sisaye (2001, p.72) stated that the organizational culture established an accounting system to which extent the innovative plan in administrations' changes can be implemented.

The Effect of Application of Management Accounting Information Systems on Quality of Management Accounting Information: The management accounting information systems hypothesized to affect the quality of management accounting information. Below are the results of significance test of the hypothesis:

Ho. $\beta = 0$: Application of management accounting information systems does not affect the quality of management accounting information.
Ha. $\beta \neq 0$: Application of management accounting information systems affects the quality of management accounting information.

Table 6: Significance test of the Effect of Application of Management Accounting Information Systems on Quality of Management Accounting Information

Path Coefficient	t	$t_{critical}$	Conclusion
0.865	14.909	1.96	Significant

The t-test value of the path coefficients on application of management accounting information systems variable to the quality of management accounting information is 14.909 greater than $t_{critical}$. It concludes that the application of management accounting information systems significantly influence the quality of management accounting information. The magnitude of the effect of the application of management accounting information system on the quality of management accounting information is (0.865 × 0.865 × 100%) = 74.8%. The results showed that the application of management accounting information system affects the quality of management accounting information by 74.8% which indicate that the quality of information refers to the quality of the output produced by the information system, thus the better the application of management accounting information systems can lead to the optimal achievement of quality management accounting information.

These results are in accordance with the findings mentioned by Duggan and Reichgelt (2006, p.18) that the information system should collect the data and turn it into quality information. Furthermore Sacer et al. (2006, p.59) states that the quality of accounting information is a prerequisite to achieve the business objectives of the company, and obviously there is no quality of accounting information in the absence of accounting information systems. Turner and Weickgenannt (2009, p.245) added that the process-based information systems provide high-quality information to the management. Likewise revealed by Jackson et al. (2009, p.30) that the information system has several benefits to improve the speed and quality of the exchange of information, reduce lead time and processing costs. Based on these arguments, it can be concluded that the application of management accounting information system affects the quality of management accounting information.

Recommendation: Based on the phenomenon, the formulation of the problem, hypotheses and research results, the authors draw the following conclusions:

- The business environment affects the application of management accounting information systems.
- The ethics affects the application of management accounting information systems.
- The organizational culture affects the application of management accounting information systems.
- The application of management accounting information system affects the quality of management accounting information.

It is important for the organization to concern on the business environment, ethics and culture in applying the management accounting information systems especially among the companies in North Sumatera province. It may be happened in other regions/countries, however, the study can’t be generalized due to having different culture and business environments for each of the regions. Moreover, it it demanded that the stakeholders will get the quality and credible information in accordance the organization operations.

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The Effect of Top Management Support and Internal Control of the Accounting Information Systems Quality and Its Implications on the Accounting Information Quality

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Abstract: This study empirically examined the influences of the top management support and of the internal control on the accounting information system quality system. Besides, the accounting information system quality has an impact on the accounting information quality. To collect the data, a research instrument was prepared to participant. Using survey information collected from forty seven (47) Baitulmal Wattamwil (BMT) in West Java Indonesia those are applied accounting information system, this study uses path analysis method. The results of the test show that the top management supports and the internal control have significant influences on the accounting information system quality. Besides, the accounting information system quality has an impact on the accounting information quality as well.

Keywords: *Top management support, internal control, accounting information system quality, accounting information quality*

1. Introduction

Information is data that has been processed so that it has a high value (Wilkinson et al., 2000:5). Information plays an important role in all aspects of human life, both individual and organization (Azhar, 2008:11). The role of information is one of the strategic resources for the survival of the company to be managed effectively so that organizations gain strategic advantage, tactical advantage and operational advantage (McLeod & Schell, 2007:29). Accounting information is one of the reliable information and can be used as a basis for decision-making (Hall, 2011:11) and assists external parties to evaluate the performance, monitoring activities, as well as a measure for policy purposes (regulatory measures) (Hansen et al., 1995 : 35). Accounting information results from the accounting process (Azhar, 2008:65) are generally presented in the form of financial statements (Kieso et al., 2012:5). Accounting information quality is suitable accounting information (fit) with user needs (Wang & Strong, 1996). McLeod & Schell (2007:46) and Gelinas et al. (2012:19) says that the quality of information should have characteristics of relevancy, accuracy, timeliness and completeness. According to Indra (2010:125) the public sector organizations in Indonesia are generally producing quality accounting information that has not been good, sometimes is not reliable, and can only be used as a decision-making consideration for the period after the reporting period. This is shown with a disclaimer opinion on BPK audit for central government financial statements (Audited) 2004 to 2007 (Anwar, 2009) and for the financial statements 8 (eight) ministries/government agencies in 2009 (Hadi, 2010) as well as for financial statements of the finance ministry in 2005-2009 (Agus, 2010). The condition, for certain, requires each agency information system improvements in governance (Herry, 2010) and strengthen the synergies information system (Hadi, 2012) because through the application of quality information systems, can optimize the operation (Shebab, 2004). For certain, if the quality of information produced is not qualified it is because of the quality information system (Sacer et al., 2006:62).

Information system is a tool that provides the necessary information to all interested parties (Azhar, 2008:58) and as a manager's tool to cope with the change (Laudon & Laudon, 2014:43). Therefore, the information system must be accepted and used by all employees in the organization (Laudon & Laudon, 2014:45). Quality information systems can mean a successful information system (managed) or effective (DeLone et al., 2003). According to Ralph et al. (2010:57) states that a quality information system is usually flexible, efficient, accessible and timely. In fact, accounting information systems applied to public and private sector organizations in Indonesia have not been good. It was stated by Anwar Nasution (2007) which says that the improvement of national accounting information system is sluggish. The low quality of accounting information systems also occurs in the organization of State Owned Enterprises (SOEs). From the analysis of the 2005-2011 BPK audit found a total of 24 SOEs potentially corrupt state institutions (Uchok Sky Khadafi, 2012). Similar conditions, also occurs in treasury Wattamwil (BMT) which has limitations in information systems.

To achieve the quality of the information system, it takes commitment from top management (Doll & Deng, 2001), as well as the involvement of top management as a user in the development of information systems (Zviran et al., 2005), so that users can receive and use information systems which are developed and ultimately can increase users' satisfaction (DeLone & McLean, 1992). This opinion is supported by the results of research McGill (2003) and Wixom & Todd (2005). Top management support in the development of accounting information systems can be committed in the form of time, money, and resources to support the development of information systems that occur in long-term partnerships and companies can also ongoing in stable process (Mark et al., 2012). The quality of accounting information systems is influenced by internal control factors. The internal controls in the context of this study means methods, policies and procedures which are established/constructed to provide reasonable assurance to management that the activity and function of accounting information system facilities are reasonable to hold input activities, processes and the activities to produce quality accounting information to user and storage activities (Elder et al., 2010:290). Messier & Prawit (2010:290). The phenomenon regarding to the lack of management support and internal control is seen in the company of many cases, in general, are the weak commitment of the highest to the lowest leadership in eliminating corruption (Taufikurahman, 2011), in the absence of equitable distribution of responsibilities, weak internal controls and a lack of supervision of top management (Halim, 2011) are reflected in the weakness of the systems and procedures (Difi, 2012). Based on the description above, the author is interested in doing research with the title "The Effect of Top Management Support and Internal Control of the Accounting Information Systems Quality and Its Implications on the Accounting Information Quality. The research was conducted at the Baitulmal Wattamwil (BMT) West Java Indonesia.

2. Literature Review

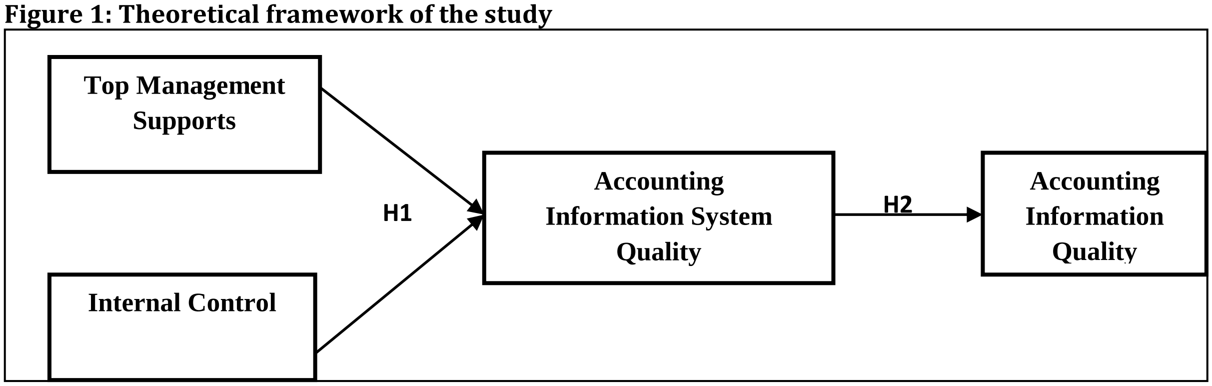
Top Management Support: Raymond (2006) define top management support is that only project management success (on-time on-budget) is emphasised by all stakeholders and top management support has been neglected. The similiar to Raymond (2006), Sheth (2010:50) explain that top management support is the factor that determines the tipping point between potential succes and failure when developing and implementing business continuity of the management project and system. From the above, it can be concluded that the top management support is the involvement of the top management for the provision of guidelines with a commitment in terms of time, cost, and resources to support activities within an organization via information systems in decision making for the achievement of objectives in an organization (Raymond, 2006; Sheth, 2010:50; Robbins et al., 2012:34; Mahring, 2002:48; Shead, 2002:52; Chen & Paulraj, 2004; Jarvenpaa & Ives, 1991; Hashmi, 2004; Choe, 1996; Doll, 1985; Bhanu et al., 2004; Mark et al., 2012). The Dimensions of the top management support in this study consisted of: (1) Evaluate the current and future use of IT; (2) Direct preparation and implementation of plans and policies to ensure that the use of IT meets business objectives; (3) Monitor conformance to policies and performance against the plans.

Internal Control: Elder et al. (2010:290) menyatakan a system of internal control consists of policies and procedures designed to provide management with reasonable assurance that company achieves its objectives and goals. These policies and procedures are often called controls, and collectively they comprise the entity's internal control. Further Messier & Prawit (2010:290) said also that the internal control is design and affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance about the achievement of entity's objectivities in the following categories: (1) Realibility of finacial reporting, (2) Effectiveness and efficiency of operations, and (3) Compliance with applicable laws and regulations. From the statement above, the concept of internal control aimed at the concept of information system quality, so that means as a method of internal controls, policies and procedures established / constructed to provide reasonable assurance to management that the activity and function of accounting information system facilities are fair to hold the input activity, processes and activities in order to produce accounting information quality ((Elder et al., 2010:290; Messier & Prawit, 2010:290; Bodnar & Hopwood, 2010:138). Dimensions of internal control in this study consisted of: (1) The control environment; (2) The entity's risk assessment process; (3) The control activities; (4) The Information Systems and communications; (5) Monitoring (Bodnar & Hopwood, 2010:149; Nash & Heagy, 1993:485).

Accounting Information System Quality: Fundamental role of accounting information systems in organizations is to produce accounting information quality (Azhar, 2008:374). An accounting information system quality is defined as a form of a statement about the conditions in which accounting information system can generate accounting information according to user needs. Accounting information quality obtained from the application of the accounting information systems quality (Sacer et al., 2006:6). Ralph et al. (2010:57) menyatakan a quality information system is usually flexible, efficient, accessible, and timely. Further, an information system that blend technical efficiency with sensitivity to organizational and human needs, leading to higher job satisfaction and productivity. From these statements, the accounting information system quality can generate accounting information according to user needs (Azhar, 2008:374; Sacer et al., 2006:6; Ralph et al., 2010:57). The dimensions and indicators of accounting information system quality in this study consists of: (1) Flexibility, (2) Efficiency and (3) Accessibility (Azhar, 2008:374; Sacer et al., 2006:6; DeLone et al., 2003; Ralph et al., 2010:57).

Accounting Information Quality: According to McLeod & Schell (2007:86) information should be available for problem solving brfore crisis situations develop or opportunities are lost. The user should be to obtain information that describes what is happening now, in addition to what happened in the past. Information that arrives the decision is made has no value. O'Brien & Marakas (2008:360) explain that information of high quality, that is information products whose charactersitics, attributes, or qualities make the information more valuable to them. It is useful to think of information as having the three dimension of time, content and form. From the above, it can be said that the accounting information quality is useful information for decision makers who have the criteria for accurate, relevant, timely and complete (McLeod & Schell, 2007:86; O'Brien & Marakas, 2008:360; Azhar, 2008:14; Hall, 2011; Shipper & Vincent, 2003:99; Eppler, 2003) where the four criteria used as dimension in this study.

Figure 1: Theoretical framework of the study



Theoretical Framework: Theoretical framework designed in this study is that the accounting information system quality is influenced by top management support. Mahring (2002: 56) states that many studies consider top management supports as one important factor of the studies' for achieving successful information system implementation. That is supported by the results of the studies of Ann et al. (2008); Rajeev Sharma et al. (2003); Bhanu et al. (2004); Mark et al. (2012) showing that the top management supports give powerful effect on adoption of accounting information system. The accounting information system is also influenced by internal control. The accounting information system is also influenced by internal control. Azhar (2008:117) stated that the internal controls necessary to ensure that the accounting information system works as it should so that the risk of deviation from its intended purpose will be avoided. Companies are required to develop the internal controls in order to provide adequate assurance that the financial statements are presented fairly (Arens et al., 2008:371). That is supported by the results of the studies of Iceman & Hillson (1990). The accounting information quality is influenced by the accounting information system quality. This is supported by the result of the study showing that accounting information system enhances the truth of financial statements (Salehi et al., 2010). Thus, it is concluded that there is a relationship between accounting information system to report on the basis of information quality characteristics (Sacer et al., 2006). Nicolaou (2000) states, that the effectiveness of the accounting information system is measured by the satisfaction of the decision makers on the information quality produced by the accounting information system. To sum up, the study is aimed to determine the causal relationship between variables through tested hypothesis.

Hypothesis 1 : The accounting information system quality is significantly influenced by the top management supports and the internal control.

Hypothesis 2 : The accounting information quality is significantly influenced by the accounting information system quality.

3. Methodology

Research methodology used in this study is method of survey with questionnaires as a tool. The units of analysis of the study are forty seven (47) Baitulmal Wattamwil (BMT) in West Java Indonesia. The study focuses on applying accounting information system and survey conducted on the units of analysis. Numbers of questionnaires are distributed to each company, one copy for one company. Respondents of this study are the leaders of management companies of the Baitulmal Wattamwil (BMT). The questionnaires are manipulated based on indicators using a Likert's summated rating. The questionnaires use closed questions format serving answered choices for variables that have clear indicators measured. Data analysis conducted in this study is descriptive and verificative. The answers from the respondents were treated as data and processed by statistical measures. The sincerity of the respondents' answers is crucial; therefore, the data were tested through a test of validity and reliability. Then, in order to analyze the data statistically, the ordinal data must be transformed into interval data using the successive interval method.

4. Results and Discussion

Result of Validity and Reliability Test: The questionnaire items used have been thought on the standard of validity and reliability. Validity and reliability test shows that the items used in the study are items whose correlation co-efficiency is not less than 0.30 and reliability co-efficiency recommended is not less than 0.70. The measurement device to analyze of validity and reliability is SPSS version 20 programme.

Table 1: The Result of Recapitulation of Validity and Reliability Test

Variable	Range r_s	Explanation	Reliability
Top Management Supports	0.469 – 0.636	**All items valid**	0.7234
Internal Control	0.425 – 0.669	**All items valid**	0.7531
Accounting Information System Quality	0.622 – 0.743	**All items valid**	0.7284
Accounting Information Quality	0.582 – 0.774	**All items valid**	0.7651

The answers are treated as data and processed by statistical measures. The sincerity of the respondents' answers is crucial; therefore, the data were tested through a test of validity and reliability.

Table 2: Descriptive Analysis of Dimensions and Variables

Variables	Dimension	Percentage	Category
Top Management Supports	Evalute	62,5	Fair
	Direct	64,6	Fair
	Monitor	62,8	Fair
	Average variable	63,7	Fair
Internal Control	The control environment	65,4	Fair
	The entity's risk assessment process	64,3	Fair
	The control activities	64,8	Fair
	The Information Systems and communications	63,6	Fair
	Monitoring	65,4	Fair
	Average variable	64,6	Fair
Accounting Information System	Flexible	60,9	Fair
	Efficient	62,2	Fair

	Accessible	58,4	Bad
	Average variable	60,2	Fair
Accounting Information Quality	Accuracy	60,7	Fair
	Relevant	62,5	Fair
	Timelines	55,6	Bad
	Completeness	63,8	Fair
	Average variable	61,2	Fair

Result of Descriptive Analysis: Descriptive analysis of variables covers top management supports, internal control, accounting information system quality and accounting information quality. To clarify variables, the study uses the actual percentage score of each dimension of the ideal score, then the data are interpreted into five categories: excellence, good, fair, bad, and worst. The variables are measured by using Likert's summated rating. Score is given in the answers then summated (Harun, 1994). The following summary table is presented the percentage value and category of each variable. Learning from table 3, it is illustrated that the responds of the respondents to top management support may be considered as *fair* with score 63.7%. It means that top management support constructed in Baitulmal Wattamwil (BMT) may be defined *fair*. Related to the internal control, the respondents respond that it is identified *fair* with score 64.6 %. It means that the internal control gives an enough support to the activities run. The same evaluation is seen in the accounting information system quality. The system is calculated *fair* with score 60.2% even though respondents gives bad responds on accessible 58.4%. The condition gives an idea that accounting information system applied in the Baitulmal Wattamwil (BMT) is run fairly, but still has weaknesses in accessible. Besides, accounting information quality, in general, is valued to be *fair* with score 61.2% but has weakness in timeline; the information have been reported on time, the score is 55.6%.

The Result of Verifiable Analysis

The Influence of the Top Management Supports and of the Internal Control on the Accounting Information System Quality and Its Implication on the Accounting Information Quality: To find out the influences of the top management supports and of the internal control on the accounting information system quality and its implication on the accounting information quality, this study uses path analysis. Before making conclusion on path causal-relationship, significant test on each path coefficient counted is conducted. The measurement scale of both caused and effect variables have to be below interval. By using succession interval methods, ordinal scale can be transformed into interval scale (Harun, 1994: 131). Here is the result of the test of Y and Z variables; Y stands for accounting information system quality and Z for accounting information quality.

Table 3: One-Sample Kolmogorov-Smirnov Test

		Y	Z
N		47	47
Normal Parameters [a,b]	Mean	93.445782	58.5567349
	Std. Deviation	23.81236	14.45807
Most Extreme Differences	Absolute	.193	.241
	Positive	.148	.167
	Negative	-186	-249
Kolmogorof-Smirnov Z		.991	1.475
Asymp.Sig. (2-tailed)		.492	.099

As illustrated in Table 4, it shows that the value of significance to test the normality of the variable Y is 0,492 and 0,099 for the variable Z. These values are > 0,05, so that the data expressed in Y and Z are normally distributed.

The model will be described in two sub-structures as follows:

Sub structure 1: $Y = P_{yx1} X_1 + P_{yx2} X_2 + \varepsilon_1$

Sub structure 2: $Z = P_{zy} Y + \varepsilon_2$

Description:
Y = Accounting Information System Quality
X_1 = Top Management Supports
X_2 = Internal Control
Z = Accounting Information Quality

The Influence of the Top Management Support and of the Internal Control on the Implementation of Accounting Information System Quality

Model: Sub structure 1: $Y = P_{yx1} X_1 + P_{yx2} X_2 + \varepsilon_1$

By using SPSS, it is obtained the path coefficients to find the value of P_{yx1} is 0.641 and of P_{yx2} is 0.423. The following table shows the value of R^2, that is the amount of simultaneous influences of variables X_1 and X_2 on Y.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.723	.756	.3137

Predictors: (constant), X_2, X_1

Table 5 shows that the value of $R^2 = 0.723$ of adjusted $R^2 = 0.756$. It means that both variables – the top management supports and the internal control – have simultaneous effects on the accounting information system quality as many as 72,3%. On the other hand, the remaining value 27,7% or more than 0.277 represents the influences of other variables that are not investigated.

Sub structure 1: $Y = 0.641\ X_1 + 0.423X_2 + 0.723$

Furthermore, Table 6 shows the result of test of simultaneous hypothesis as follow.

Table 5: Test of Simultaneous Hypothesis

F Test			
F_{count}	F_{table}	p-value	Conclusion
51.094	2.8843	0.000	F count > F table : significant

The table argues that the value of F_{count} is 51.094 ; the value will be statistic test compared with another value of F in the table for $\alpha = 0.05$. It is learnt that the value of F_{table} is 2.8843 reached since the value of is F_{count} bigger than F_{table}. The result suggests that the deficiency degree is 5% (α=0.05), Ho rejected. In this case, it is concluded that, with the trust reaches 95%, both of the top management supports and the internal control have significant effects on the accounting information system quality in the Baitulmal Wattamwil (BMT) in West Java Indonesia.

Table 6: Test of Partial Hypothesis

Variable	**T Test**			
	t count	**t tabel**	**p-value**	**Conclusion**
$X_1 \longrightarrow Y$	4.6857	1.8742	0.011	t count > t table : significant
$X_2 \longrightarrow Y$	2.945	1.8742	0.032	t count > t table : significant

Based on the table 7, it is known that the test of partial hypothesis X_1 and X_2 yields significant results. This suggests that partially the top management support gives significant influences on accounting information system quality as well as the internal control providing significant partial effect on accounting information system quality.

The Influence of Accounting Information Quality on the Implementation of Accounting Information System

Model : Sub structure 2: $Z = P_{zy} Y + \varepsilon_2$
By using SPSS, it was learnt that the path coefficients obtain for P_{zy} values as follows:

Tabel 7: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.942	5.113		1.793	145
Y	.674	.063	.841	12.338	00

a. Dependent Variable: Z

Learning from the output, the value of P_{zy} is 0.923. The following is the value of R^2 which is the amount of influences of the variable Y to Z.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923[a]	.876	.761	.23678

Predictors: (constant), Y

Table 9 describes that the value of R^2 is 0.876 and the adjusted value of R^2 is 0.761. It means that the value of influences of accounting information system quality on the accounting information quality is 87,6% with remaining 12,4% or more than 0.124 (the influences of other variables not investigated).
Sub structure 2 : Z = 0.923Y + 0.124

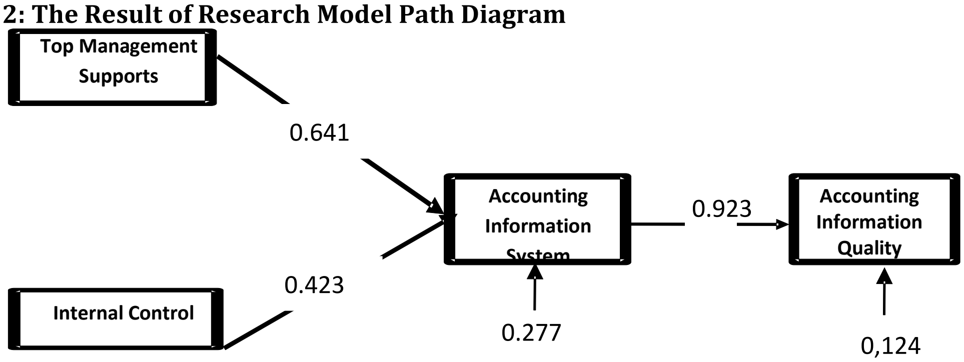
Table 9: Test of Hypothesis

Variable	T Test			
	t count	t tabel	p-value	Conclusion
Y ⟶ Z	9.862	1.943	0.000	t count > t table : significant

The table 10 shows that hypothesis test yields significant results. This suggests that the accounting information system quality significantly gives influence to the accounting information quality.

The Influence of the Top Management Support and of the Internal Control on the Accounting Information System Quality and Its Implication on the Accounting Information Quality in Baitulmal Wattamwil (BMT) in West Java Indonesia: As mentioned in the two-sub-structures analysis, the result of path-model research usually used to determine the magnitude of the direct or indirect influence of one variable on another variable, may be explained by Figure 2.

Figure 2: The Result of Research Model Path Diagram



From Figure 2, it can be concluded that:

- The top management supports have significant influence to the accounting information system quality with the amount of influence of 56.7%.
- The internal control has significant effect on the accounting information system quality with the amount of influence of 48.3%.

- The top management supports and the internal control simultaneously have significant influence to the accounting information system with the amount of influence of 72.3%.
- The accounting information system quality has significant influence to the accounting information quality with the amount of influence of 87.6%.
- The top management support gives influences to the accounting information system quality and provides significant impact to the accounting information quality with the amount of influence of 0.641 x 0.923 x 100% = 59.16 %.
- The internal control give influences to the accounting information system quality and provides significant impact to the accounting information quality with the amount of influence of 0.423 x 0.923 x 100% = 39.04 %.

In conclusion, the results of the study supports the hypothesis suggested. First, the top management supports and the internal control give influences to the accounting information system quality. Finally, the accounting information system quality gives influence to the accounting information quality. It means that, to reach accounting information quality, Baitulmal Wattamwil (BMT) in West Java Indonesia must be supported by qualified accounting information system quality.

5. Conclusion

The top management supports and the internal control implemented in Baitulmal Wattamwil (BMT) have significant effects on the accounting information system quality both partially and simultaneously. In partial, the influences of the top management support variable on the accounting information system quality are more dominant than those of the internal control. Otherwise, in simultaneous, the accounting information system quality may be achieved if the optimalization of the top management support and the internal control is significantly executed.

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