

Addressing Supply Chain Issues through CSR: Leveraging Competitive Advantage in Indonesian Insurance Sector

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Abstract: The current research investigates the empirical debate in order to addressing the supply chain management issues through corporate social responsibilities and further help the company to get the competitive advantage among competitors. The results suggested that all corporate social responsibilities variables (code of ethics, environmental orientation and community welfare) have a negative and significant impact on reducing supply chain issues (which includes cost management issue, quality management issues and relationship management issues) and then further reducing these supply chain management issues also help to enhance the competitive advantage of the firm. Therefore it can be recommended that these corporate social indicators are very helpful in reducing supply chain issues.

Keywords: *Corporate social responsibility, supply chain issue, insurance sector, Indonesia.*

1. Introduction

Corporate Social Responsibility (CSR) is defined as the process of assimilating volunteer willingness on the part of organizations towards societal and ecological problems arise because of corporate practices and thus includes incorporating the mutual association with stakeholders involved [1]. In the context of CSR, the stakeholder theory stresses a wider prospect of societal liabilities for organizations. The term stakeholders in the theory regards to the person or group of persons that may influence or be influenced by the corporations [19]. The members involved in the broad horizon of stakeholders include a team of individuals or group that consist of workforces, stockholders, customers, government, society and environment. Also, it included the other stakeholders of the organization such as dealers, trade unions, commercial associates & even competitors.

The importance of CSR lies in attaining economic, societal and ecological advantages that are resulted from embracing socially liable conducts, the significance of which are not only limited to the

organization itself but extended to compensate the whole society [2]. The linkage between corporate social responsibility and supply chain management (SCM) is critical for the delivery of superior product and services that underlie the benefit of not only providing customer satisfaction but also the societal and environmental improvement. However, issues in supply chain are often dependent on the practices of organization on the basis of which they attract their customer and runs the smooth operations of supply chain.

The impact of CSR has manifold advantages in pursuing the goal of efficient supply chain practices and dealing the problems related to the domain. The general issues of SCM revolve around procedural assimilation in supply chain accomplices, cost-effectiveness of supply chains, and client services. In addition, with the expanded outsourcing of activities diverted to emerging and low-cost economies, evolving worries about social and natural effects of manufacturing and consumption have prompted a revived awareness for issues identified with reverse logistic, ecological administration, eco-friendly supply chain practices and sustainable SCM growth.

However, with the increasing importance of efficient supply chain practices all around the world, businesses now a days are giving core attention to the fundamental issues in the supervision of supply chain. In this regard, the management perspective plays vital role to be discussed widely in both theories and literature and encompass greater emphasis on quality enhancement. In Insurance sector, the quality of product clearance is a key element in ensuring satisfaction of the customer. The primal focus in this domain is paid of providing efficient services that can result in customer delight. In doing so, time management is also another significant issue. In the absence of delays in customer services, the problems arise are not only affect the immediate service but the future prospective sales. With the enhancement in technological innovation and urge for greater competitive advantages, the supreme focus in today's supply chain management is associated in processing time management.

On the other hand, the rising desires for clients have constrained the protection segment to present increasingly new client relationship administration activities as it has a genuine effect on the sale of insurance product. In addition, the greater emphasis on relationship

management also motivates from the innovative advances and diminishing expenses of technologies that have decreased supply chain limitation to embracing information technology to boost relationship management activities. The fact that the performance of insurance industry is greatly dependent on the services they offer, therefore the major hindrance involves in the fulfilment of their vision must overcome the issues of time, quality and relationship management.

The emphasis of modern practices in CSR deals with having profound code of ethics that can ensure quality enhancement, timely services and improved relationship. The integration among the firm's and stakeholder's code of ethics involve the administration of how a corporate code of morals influences the everyday basic leadership of the firm with reference to social obligation. Thus, it can be worried about human asset arrangements, for example, the positive or on the other hand negative impacts of corporate contracting and worker advantage hones. Likewise, the components of community welfare also enable the organizations to take part in societal wellbeing and in doing so, they are in a better position to improve their market image, learn numerous ways of environment friendly practices and related legislation that assist them in ensuring quality products.

Lastly, the environmental orientation is also critical in solving the issues of supply chain management of the organization. The domain of environmental orientation can be categorized in two aspects. The first aspect includes the internal environment orientation. The importance of internal environmental orientation lies in having greater communication and co-ordination among organizations' internal members related to its stance in playing environmentally responsible role [10], [28], [29], [33]. The other aspect deals with external environmental orientation. This relates to integrating the external teams of stakeholders that mutually agreed on adopting and implementing environment friendly corporate practices that have the potential to overcome communication failures and priority gap. The environmental orientation enlightens the prospective of green supply chain and thus results in improved performance [11], [25], [26], [27]. Therefore, the objective of the present study is to address the issues involves in the process of supply chain related to time, quality and relationship management, through practicing the measures of corporate social responsibility. In addition, the objective of the present study in further extended to investigate the impact of supply chain management issues on competitive advantage.

2. Literature Review

The emphasis of corporate social responsibility in the process of improving supply chain practices has been widely discussed in academia. In this context, [20] analyses the contribution of corporate social responsibility in global SCM in Sweden. In doing so, the authors opted the case analysis to demonstrate the practices of IKEA supply chain management. The aim of the study is to emphasize on the internal & external assimilation of corporate social responsibility in SCM by adopting the

methodology of interviews of company's staff. The findings of the study stress on the importance of involving the activities of corporate social responsibility activities in all division of organization from domestic to overseas. The authors find vital importance of employee training, periodic auditing of supplier activities, and good incentives for greater contracts. The study concludes that considering corporate social responsibility could help to strengthen the success of supply chain practices and firms future growth.

In regard to the importance of code of conducts, the studies from the past have establish the significant association of the variables in enhancing CSR positive role in the process of supply chain. However, [14] stated that the empirical investigations in this regard has concluded the difficulty in the implementation of code of conduct in the process of global SCM. Similarly, [12] doubted that importance of code of conduct in resolving the issues of supply chain and regarded them as the unrealistic proclamations of organizations that lacks in preciseness and realism. Likewise, [13] in their study analysed the obstacles and impact of publically accountable buying in United States. In doing so, the study examined the application of code of conducts. The outcomes of the study found the vital contribution of communication, evaluation and efficient implementation of code of conducts to enhance the progress of supply chain buying.

In similar context, the focus on the process of Reverse logistics is considered crucial in the process of sustainable supply chain for contributing in the merchandise return, source decline, re-processing, material replacement, waste discarding, revamping, overhauling and reproducing [8], [30], [31], [32]. The successful implementation of reverse logistic plays greater part in environmentally stable supply chain practice. In this context, [9] examined the contribution of reverse logistic in enhancing supply chain performance in European Firms. The results of the study establish that the inconsistency of reverse movement in supply chain enhances the usability of inventory variance. Furthermore, the study establish that an appropriate scheme of reverse flow significantly advances the Firm's international performance.

Emphasizing on the importance of environmental orientation, [11] studied the role of internal and external environmental orientation in improving green supply chain practices and corporate performance. Collecting the data from 194 organization, the findings of the study revealed the significance of internal environmental orientation in enhancing green buying, customer support and investment recovery. Similarly, the statistical findings from structural equation modelling also reported the significance of external environment orientation in improving green buying and customer support. The results of the study however failed to find the effect of external environment orientation in augmenting investment recovery in supply chain process.

The aspect of green supply chain is considered as an efficient implementation of CSR in supply chain management. Greening the production network can spare assets, remove or diminish waste, and progress the company's efficiency by providing competitive gains [7].

Greening activities incorporate proactive plan for dismantling, outline for re-manufacturing, utilization of maintainable materials (re-useable wood and materials), utilization of recoverable power (sun, wind and wave powers), utilization of eco-friendly transport modes and center around high consumption of transport modes and operational vicinities. The benefits of green SCM augment firms' competitive advantage and performance. In this regard, [10] studied the role of green supply chain practices in 89 automobile companies of China. The findings of the study establish that the drivers of green supply chain have insignificant impact on internal environmental management. The results of the study further establish that internal environment management is statistically vital to effect economic and environmental performance of the organizations. However, the variable is failed to have the significant influence on operational performance of Chinese automobile industry.

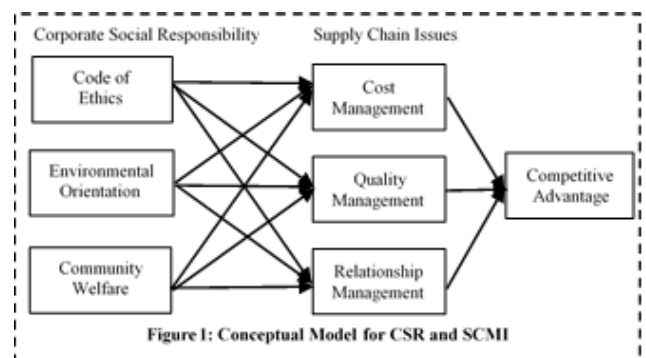
In United States, [6] examine the role of green supply management in augmenting the performance of the 159 companies. The study applied structural equation modelling to examine the impact of six green supply chain practices including internal environmental management, eco-design, green information systems, cooperation with customers, investment recovery and green purchasing on the three core measures of organizational performance, i.e. economic performance, environmental performance and operational performance. The findings of the study establish that the implementation of green supply management tends to enhance environmental & economic performance that further lead to affect the operational performance. The study further operational performance is substantial indicator of improved organizational performance.

Focusing on the welfare and wellbeing of society, [5] establish that in order for the organizations to adopt CSR in supply chain, the focus should be exerted on the three kinds of benefits. The first two are related to economic and environmental benefits and the last is associated with societal benefits. In this context, the emphasis on community welfare is crucial to fulfil the objective of efficient CSR implementation to reduce SCM issues. [4] determine the methods of enhancing community wellbeing by adopting optimal planning framework. The authors focused to initiate the process of societal welfare chain in the course of SCM decision making through the optimum planning model. The outcomes of the study stated that other than establishing the frameworks of communal wellbeing, an expository device for decision support networks of the NGOs can be considered as the significant finding of the exploration. Furthermore, the authors stressed that regardless of the expanded number of stages in the proposed organize design, the ideal arrangement brought about noteworthy cost reduction and logistic proficiency is crucial to ensure quality and time management by of utilizing multi-purpose transportation in the dissemination procedure of cost-sensitive systems.

3. Methodology

The current study has collected data from staff members who are working at higher or middle management levels. We focused that middle-level staff members, for instance, those in a sales department can simplify corporate social responsibilities and supply chain management issues, which are like our outcomes from a broad business talk with over 5 companies prior to launching out survey research. We then arranged our inspection by using convenience sampling during sales training workshops. A total of 337 surveys question were distributed to insurance company staff in Indonesia. After eliminating the blank, & incomplete survey questionnaire, we found at a final sample size of 289 responses from the employees of insurance companies.

The questionnaire incorporated 7 variables for a study that includes: codes of ethics (COE), environmental orientation (EO), community welfare (CW), cost management issues (CMI), quality management issues (QMI), relationship management issues (RMI) & competitive advantage (COM). The adopted questionnaire involves attributes of these variables based on prior research & is designed through Likert scale from 1= Strongly Disagree to 5= Strongly Agree. Questions are taken from prior researches and given high reliability like codes of ethics (COE) whose Cronbach Alpha is 0.77, environmental orientation (EO) whose Cronbach Alpha is 0.81, community welfare (CW) whose Cronbach Alpha is 0.88, cost management issues (CMI) whose Cronbach Alpha is 0.92, quality management issues (QMI) whose Cronbach Alpha is 0.95, relationship management issues (RMI) whose Cronbach Alpha is 0.85 & competitive advantage (COM) whose Cronbach Alpha is 0.92.



Based on the comprehensive review of the literature, the present study aims to test the following hypothesis model.

Ho₁: Code of ethics has a negative & significant impact on Cost management issues.

Ho₂: Code of ethics has a negative & significant impact on Quality management issues.

Ho₃: Code of ethics has a negative & significant impact on relationship management issues.

Ho₄: Environmental orientation has a negative & significant impact on Cost management issues.

Ho₅: Environmental orientation has a negative & significant impact on Quality management issues.

Ho₆: Environmental orientation has a negative & significant impact on relationship management issues.

Ho₇: Community welfare has a negative & significant impact on Cost management issues.

Ho₈: Community welfare has a negative & significant impact on Quality management issues.

Ho₉: Community welfare has a negative & significant impact on relationship management issues.

Ho₁₀: Cost management issues has a negative & significant impact on competitive advantage.

Ho₁₁: Quality management issues has a negative & significant impact on competitive advantage.

Ho₁₀: Relationship management issues has a negative & significant impact on competitive advantage.

4. Empirical Results

The empirical analysis was examined by using software named as Statistical packages for Social Sciences SPSS 21 & Analysis moment of Structure AMOS 21 package with data size of n=289. Table-1 shows the results of reliability analysis which explains that how much the instrument is getting consistent response from the respondent. The reliability analysis is done by Cronbach alpha value and the minimum value of Cronbach alpha must be greater than 0.70 [21]. In our case the Cronbach alpha value is greater than the require value in all the considered variable.

Table 1: Results of Reliability Analysis

Variable	Cronbach Alpha Value
Code of Ethics	0.77
Environmental Orientation	0.81
Community Welfare	0.81
Cost Management Issue	0.92
Quality Management Issue	0.95
Relationship Mgmt. Issue	0.85
Competitive Advantage	0.92
Overall Reliability	0.89

Table 2 shows the correlation between the seven constructs of the current study. Empirical investigation was started prior inspection for the problem of multicollinearity. With the objective to solve the issue of multicollinearity among independent, [22] explained that the problem of multicollinearity occurs in the study if Pearson's R-value is more than 0.90. The maximum Pearson's correlation value is between cost management issue & quality management issue i.e. 0.77 which still is less than 0.9, suggesting no problem of multicollinearity occur among the constructs [22].

Table 2: Pearson Correlations							
Correlations							
	COE	EO	CW	CMI	QMI	RMI	COM
COE	1						
EO	.26	1					
CW	.68	.55	1				
CMI	.26	.15	.56	1			
QMI	.16	.65	.35	.77	1		
RMI	.25	.46	.66	.66	.65	1	
COM	.45	.55	.25	.50	.45	.57	1

Table 3: KMO & Bartlett's Test

KMO Measure of Sampling Adequacy.		.887
Bartlett's Test of Sphericity	Approx. Chi-Square	2712.046
	df	276
	Sig.	.000

The outcomes of Table 3 indorse the model fitness of exploratory factor analysis. The value of KMO is 0.921 which is greater than .700 as suggested by [22]. Also, the significance value of Bartlett's test is less than 0.050. The results of KMO & Bartlett's test confirm that the collected sample is enough for making the factor analysis. All the two fitness also confirm the fitness of exploratory factor analysis.

Table 4: Results of Exploratory Factor Analysis^a

	COE	EO	CW	CMI	QMI	RMI	COM
EV	5.6	3.6	2.3	1.8	1.2	1.1	1.0
%	24.5	10.8	10.2	8.8	7.8	7.6	7.2
C %	24.5	35.3	45.5	54.3	62.1	69.7	76.9
COE	COE1	.81					
	COE2	.77					
	COE3	.72					
	COE4	.70					
EO	EO1		.78				
	EO2		.70				
	EO3		.69				
	EO4		.64				
CW	CW1			.75			
	CW2			.70			
	CW3			.68			
	CW4			.65			
CMI	CMI1				.70		
	CMI2				.66		
	CMI3				.61		
	CMI4				.60		
QMI	QMI1					.68	
	QMI2					.66	
	QMI3					.62	

	QMI4					.58		
RMI	RMI1						.62	
	RMI2						.60	
	RMI3						.58	
	RMI4						.55	
COM	COM1							.60
	COM2							.60
	COM3							.58
	COM4							.55

Extraction Method: (PCA) Principal Component Analysis
a. Rotation joined in 16 repetitions

Table 4 explains the outcomes of exploratory factor analysis in which we have seven variable & every variable have four items in it. In table 4 we have factor loadings of 28 items with the factor loading more than 0.55. In code of ethics variable, we have 4 items with the minimum factor loading value of 0.70 & maximum factor loading value of 0.810. Similarly, environmental orientation has 4 value with minimum 0.64 & 0.78 maximum facto loading value. Cost management issue have also 4 items with factor loading from 0.60 to 0.75. Quality management issue has 4 items with the factor loading of minimum value 0.58 & maximum value of 0.68. Whereas, the relationship management issue also has 4 items in their latent variables with the minimum factor loading value of 0.55 to 0.62 for competitive advantage 0.60 to 0.55 and for community welfare 0.65 to 0.75. The results of table 4 confirm that minimum factor loadings are greater than 0.55 which are considered excellent good [23]. The subsequent explanation displayed in table 4 doesn't display any cross loading between the items signifying that there is no issue of discriminant validity among variables.

The current study executed Confirmatory Factor Analysis (CFA) with twenty-eight absolute items that indicated seven factors i.e., codes of ethics (COE), environmental orientation (EO), community welfare (CW), cost management issue (CMI), quality management issue (QMI), relationship management issue (RMI) & competitive advantage (COM). The CFA framework analyzes the association among the measured & latent factors (Byrne, 2012). Kline (2005) intensely recommended the grouping of the Chi-Square test, the Comparative Fit Index, the Root Mean Square Error of Approximation (RMSEA) & Standardized Root Mean Square Residual (SRMR). Following [24] suggestion, Table 5 displays the goodness of fit table for our ultimate theorized framework.

Table 5: CFA Model Fit Indices

Indices	Final Measurement Model
χ^2 (df)	2655.358 (1570)***
CMIN/df	1.349
CFI	0.958
RMSEA (P-Close)	0.038 (0.61)
SRMR	0.029

Conclusively, the results of goodness fit tables recommended that our framework explains the sample very sound. In our case, the value of CMIN/df is 1.349 & explains the goodness of fit standard. Additionally, in associating smallest discrepancy outcome with further classy suitable indices, our (CFI=0.96) is equivalent to the outstanding framework suitability level & greater than the old range of 0.90. Our (SRMR=0.03) is also significantly lesser than the 0.08 value that is measured satisfactory for representing model fitness.

Table 6: SEM Hypothesis Testing

	Path	Beta	C.R	Sig	Status
H1	CMI ← COE	-0.45	-3.43	***	Supported
H2	QMI ← COE	-0.31	-4.97	***	Supported
H3	RMI ← COE	-0.27	-2.97	***	Supported
H4	CMI ← EO	-0.33	-2.46	***	Supported
H5	QMI ← EO	-0.59	-6.85	***	Supported
H6	RMI ← EO	-0.17	-3.30	***	Supported
H7	CMI ← CW	-0.22	-3.12	***	Supported
H8	QMI ← CW	-0.16	-4.78	***	Supported
H9	RMI ← CW	-0.19	-3.88	***	Supported
H10	COM ← CMI	-0.30	-7.54	***	Supported
H11	COM ← QMI	-0.01	-6.09	***	Supported
H12	COM ← RMI	-0.26	-5.79	***	Supported
R-Square		0.63			

The results of structural equation modelling is shown in table 6. This table contains beta coefficient value, t-statistics (critical ratios) & significance value. Also, it explain the R-square value which means how much variance of dependent variables is explain by the help of independent variables. The results suggest that all variables have a negative & significant impact on competitive advantage as expected from the past literature. The outcomes proposed the negative significant impact of code of ethics (COE) on cost management issue (CMI) with coefficient of (B= -0.45; p < 0.000), on quality management issue (QMI) with coefficient of (B= -0.31; p<0.000) & on relationship management issue (RMI) (B= -0.27; p<0.000), whereas the same negative significant impact of environmental orientation (EO) on cost management issue (CMI) with coefficient of (B= -0.33; p<0.000), on quality management issue (QMI) with coefficient of (B= -0.59; p<0.000) & on relationship management issue (RMI) (B= -0.17; p<0.000). Furthermore, the significant negative impact of community welfare (CW) is reported on cost management issue (CMI) with coefficient of (B= -0.22; p < 0.000), on quality management issue (QMI) with coefficient of (B= -0.16; p<0.000) & on relationship management issue (RMI) (B= -0.19; p<0.000). Finally, the impact of all supply chain management issue has also negative and significant with the beta coefficient of -0.30 for cost management issue on competitive advantage, -0.01 for quality management issue on complete advantage and -0.26 for relationship management issue on competitive advantage. The results of table 6 suggested that all

corporate social responsibilities variables (code of ethics, environmental orientation and community welfare) have a negative and significant impact on reducing supply chain issues (which includes cost management issue, quality management issues and relationship management issues) and then further reducing these supply chain management issues also help to enhance the competitive advantage of the firm.

5. Conclusion

The current research investigates the empirical debate in order to addressing the supply chain management issues through corporate social responsibilities and further help the company to get the competitive advantage among competitors. For doing so, the current study divided corporate social responsibility into three sub-categories which are code of ethics, environmental orientation and community welfare. Furthermore, the supply chain issues are further divided in to three sub branches which are cost management issues, quality management issues and relationship management issues. The current study is conducted in the insurance sector in Indonesia. The results suggested that all corporate social responsibilities variables (code of ethics, environmental orientation and community welfare) have a negative and significant impact on reducing supply chain issues (which includes cost management issue, quality management issues and relationship management issues) and then further reducing these supply chain management issues also help to enhance the competitive advantage of the firm. Therefore, it can be recommended that these corporate social indicators are very helpful in reducing supply chain issues which ultimately lead the insurance sector to competitive advantage.

References

- [1] Commission of the European Communities. Green paper. Promoting a European framework for corporate social responsibility. COM 366 final. Brussels, 2001.
- [2] Enderle, Georges. "Global competition and corporate responsibilities of small and medium-sized enterprises." *Business Ethics: A European Review* 13, no. 1 : 50-63., 2004.
- [3] Roberts, Sarah. "Supply chain specific? Understanding the patchy success of ethical sourcing initiatives." *Journal of business ethics* 44, no. 2-3 : 159-170., 2003.
- [4] Adivar, B., Atan, T., Sevil Oflaç, B., & Örtten, T. "Improving social welfare chain using optimal planning model." *Supply Chain Management: An International Journal*, 15(4), 290-305, 2010.
- [5] Gopalakrishnan, K., Yusuf, Y. Y., Musa, A., Abubakar, T., & Ambursa, H. M. "Sustainable supply chain management: A case study of British Aerospace (BAe) Systems." *International Journal of Production Economics*, 140(1), 193-203., 2012.
- [6] Green Jr, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. . "Green supply chain management practices: impact on performance." *Supply Chain Management: An International Journal*, 17(3), 290-305., 2012.
- [7] Porter, M.E. and Linde, "Green and competitive: ending the stalemate", *Harvard Business Review*, Vol. 73 No. 5, pp. 120-35., 1995.
- [8] Stock, J.R. "Development and Implementation of Reverse Logistics Programs", Council of Logistics Management, Oak Brook, CA., 1998.
- [9] Turrisi, M., Bruccoleri, M., & Cannella, S. "Impact of reverse logistics on supply chain performance". *International Journal of Physical Distribution & Logistics Management*, 43(7), 564-585., 2013.
- [10] Zhu, Q., Sarkis, J., & Lai, K. H. . "Green supply chain management: pressures, practices and performance within the Chinese automobile industry". *Journal of cleaner production*, 15(11-12), 1041-1052., 2007.
- [11] Chan, R. Y., He, H., Chan, H. K., & Wang, W. Y. "Environmental orientation and corporate performance: The mediation mechanism of green supply chain management and moderating effect of competitive intensity." *Industrial Marketing Management*, 41(4), 621-630., 2012.
- [12] Sethi, S. P. "Standards for corporate conduct in the international arena: Challenges and opportunities for multinational corporations." *Business and society review*, 107(1), 20-40., 2002.
- [13] Carter, C. R., & Jennings, M. M. "The role of purchasing in corporate social responsibility: a structural equation analysis." *Journal of business Logistics*, 25(1), 145-186., 2004.
- [14] Leigh, J., & Waddock, S. "The emergence of total responsibility management systems: J. Sainsbury's (plc) voluntary responsibility management systems for global food retail supply chains." *Business and Society Review*, 111(4), 409-426., 2006.
- [15] Porter, M., & Van der Linde, C. "Green and competitive: ending the stalemate." *The Dynamics of the eco-efficient economy: environmental regulation and competitive advantage*, 33., 1995.
- [16] Kline, R. B. *Methodology in the social sciences*. 2005.
- [17] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. *Multivariate data analysis (Vol. 6)*., 2006.
- [18] Tabachnick, B. G., & Fidell, L. S. *Using multivariate statistics*. Allyn & Bacon/Pearson Education., 2007.
- [19] Clarkson, M. E. "A stakeholder framework for analyzing and evaluating corporate social performance". *Academy of management review*, 20(1), 92-117., 1995.
- [20] Andersen, M., & Skjoett-Larsen, T. "Corporate social responsibility in global supply chains". *Supply chain management: an international journal*, 14(2), 75-86., 2009.
- [21] Nunnally, J. C., & Bernstein, I. H. *Psychometric Theory* McGraw-Hill New York Google Scholar., 1978.
- [22] Hair, J. F., Black, W. C., Babin, B. Y. A., Anderson, R., & Tatham, R. *Multivariate Data Analysis. A Global Perspective.*, 2010.

- [23] Tabachnick, B. G., & Fidell, L. S. *Using multivariate statistics*. Allyn & Bacon/Pearson Education., 2007.
- [24] Kline, R. B. *Principles and practice of structural equation modeling*. Guilford publications., 2015.
- [25] Guo, Z. Y. Health Insurance and the Demand for Medical Care: a Case Study from China. *Asian Journal of Economics and Empirical Research*, 4(1), 8-13., 2017.
- [26] Mejdoub, H., & Arab, M. B. A Multivariate Analysis for Risk Capital Estimation in Insurance Industry: Vine Copulas. *Asian Development Policy Review*, 5(2), 100-119., 2017.
- [27] Mulchandani, K., Sitlani, C. M., & Mulchandani, K. The determinants of financial performance in life insurance sector in India. *Asian Journal of Empirical Research*, 6(10), 261-269., 2016.
- [28] Ellis, E. Willingness to Pay for Index Based Crop Insurance in Ghana. *Asian Economic and Financial Review*, 7(7), 700-721., 2017.
- [29] Motameni, M. Private Insurance and Income Inequality in Iran. *Asian Economic and Financial Review*, 5(3), 418-425., 2015.
- [30] Isimoya, O. Business Ethics in Insurance Industry in Nigeria. *International Journal of Management and Sustainability*, 3(6), 341-359., 2014.
- [31] Zahra, E. A. F. Use of Value-At-Risk for the Quantification of Risks In Insurance. *Review of Knowledge Economy*, 1(1), 30-38., 2014.
- [32] Okoye, N. F., Egbo, O., Okeke, O. M., & Nwankwo, E. An Analysis of the Relationship between Insurance Risk Management and Growth of the Nigerian Economy. *International Journal of Economics and Financial Modelling*, 2(1), 25-36., 2017.
- [33] Fragouli, E., & Danyi, A. Y. Promoting Local Acceptability of International Oil Companies (IOCS) Through Corporate Social Responsibility (CSR): The Case of Tullow Oil in Ghana. *Financial Risk and Management Reviews*, 1(1), 27-52., 2015