The Impact of Buyer-Supplier Quality Information Exchange and Institutional Pressure on Green Economic Supply Chain Performance in Tanzania

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Abstract

The study aimed at investigating factors influencing green economic supply chain performance in Tanzania under buyer-supplier dyadic relationships. Specifically, the study examined the influence of buyer-supplier quality information exchange and institutional pressure on green economic supply chain performance in Tanzania. Based on cross-sectional research design, the data was gathered from heads of procurement departments in the local government councils from 166 officials. Based on SmartPLS estimates it was found that all the two specific objectives that reflected the general objective were attained. The study revealed that buyer-supplier quality information exchange has a positive impact on green economic supply chain performance in Tanzania. Similarly, the paper revealed that institutional pressure has a positive impact on green economic supply chain performance. Since most empirical studies on enhancing green economic supply chain performance have not been based on an effective-cost approach and regulatory pressure, this study refills that gap by revealing the applicability of supply chain management theory, transaction cost theory and institutional theory on enhancing green economic supply chain performance. Thus, buyer-supplier effective sharing of information through various media such as Email, WhatsApp and Tweeter just to mention a few would enhance proper green economic supply chain performance. In the same vein, the presence of regulatory institutions such as the Public Procurement Regulatory Authority (PPRA) enhances the green economic supply chain performance by effective regulating members (buyers and suppliers) of the supply chain to comply with established standards.

Key Words: Quality Information Exchange, Institutional Pressure, Green Economic Supply Chain Performance.

Introduction

In essence, organizations rarely work in isolation. Every organization sources supplies from other organizations (i.e. inputs suppliers) and also every organization depends on supplying its products or services to some others (i.e. product buyers). Moreover, most products move through a series of organizations as they travel from original suppliers to final customers (Donald, 2003). This is known as a supply chain which is defined as a series of organizations engaged in the upper and downward movement of goods, services, facts (information) and funds (Mentzer et al., 2001). The concept of supply chain originates from logistics and has been undergoing several revolutions and modifications. Although logistics entail flows of information, materials and funds, the curiosity of this paper rests on the excellence of information flow in enhancing green economic supply chain performance.

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Quality information sharing partakes a great influence on the green economic source series performance and competitive advantage of the organization. This is due to the fact that when it is properly integrated among players can decrease overall expenses resulting from logistics and attribute to customers' supplied worth (Mentzer et al., 2001). In most studies quality information exchange has not been considered as an individual component impacting overall supply chain integration, hence more studies are needed to isolate quality information exchange from other factors that integrate the source series (Moberg et al., 2002; Cooper et al., 1997). Thus, this paper considers quality information exchange in the current perspective of the green economic supply chain, by focusing on its impact as an individual component on the green economic supply chain performance. It can be noted that businesses are facing environmental challenges from source series actions like amplified resource insufficiency, purchaser attentiveness, surrounding rules and reflection of surrounding consequences (Ariyanti, 2018). According to Wu (2013), a green economic supply chain involves a collaboration of an organization with its players in the source series to govern the within and between firms surrounding actions. However, Bisbe and Otley (2004) stressed that a great extent of excellent factual exchange promotes market researches while fostering the advance of new thoughts and encouraging investigation for novel creativities via a manner of information acquisition. Fawcett et al. (2011) admitted that nowadays factual sharing is an important source for improving the actions and relative advantage of organizations and their source series.

Furthermore, unlike the traditional source series performance studies that are based on quantitative techniques, the green source series performance studies are based on qualitative techniques (Jung, 2011). Therefore, this study bridges the gap by researching green supply chain performance based on a quantitative approach to statically confirm the influence of information exchange and institutional pressure on it. Yan et al. (2016) revealed the presence of limited researches on the green economic supply chain. Most countries today have started requesting the green certification for items imported to their counties, which form a green supply chain barrier (Qi & Bi, 2014). On top of that, Peng et al. (2014) revealed the presence of limited quantitative studies on source series factual mechanisms in the government supplies though a few actual studies have offered fruitful understanding in an overall context. Also, Storer and Storer (2006) after conducting an intensive literature review identified the lack of detailed studies on the role of information sharing in improving green source series performance. Moreover, qualitative studies on green source series performance suggest that the presence of communication fosters proper green source series performance that should be quantitatively verified (Peng et al., 2014).

Grounded on earlier studies, it can be noted that information exchange and green supply chain are predominant in the industrialized countries such as China in Asia, America and European settings. On the other hand, minimum researches are conducted in less industrialized countries which are the main sources of raw materials for the industrialized countries, as well as consumers of their manufactured products. From this ground, more researches are needed to be conducted from the context of less industrialized countries focusing on information exchange and green supply chain so as to attain sustainable performance of the green supply chains. Tanzania is one of the developing countries with fewer industries and many natural resources for industrial activities. The country relies more on the importation of supplies with less exportation of its products (UNEP, 2009). Therefore, a study on friendly surroundings (green) source series in the Tanzanian setting

would be crucial for investigating more time the already found associations and to come up with a concrete understanding.

Hence, this paper examines the impact of quality information exchange on the green economic supply chain performance of supplies based on purchasing officers' perception in Tanzania. The study bases on the supply chain management theory as the main theory governing the direct relationship between quality information exchange and green economic supply chain performance. An institutional theory explains the influence of institutional pressure on the association between information exchange and green economic supply chain performance. Thus, this study seeks answers to the following research questions:

- RQ1: What is the potential impact of quality information exchange on green economic supply chain performance?
- RQ2: What is the potential impact of institutional pressure on green economic supply chain performance?
- RQ2: What is the moderating influence of institutional pressure on the relationship between information exchange and green supply chain performance?

The findings of this research will broaden the knowledge of the green economic supply chain in relation to quality information exchange and institutional pressure basing on the supply chain management theory and institution theory. The application of supply chain management theory roots from the general relationship between information exchange and the green economic supply chain. Thus, the finding of this relationship has a theoretical impact on supply chain management theory. In the same vein, transaction cost economics is used to cover the association between the quality information exchange and green economic supply chain performance. So, the finding of this association provides a significant ground in explaining theoretical contribution to the transaction cost economics. On the other hand, the institutional theory is employed to govern the moderating effect of the institutional pressures on the main association between quality information exchange and the green economic supply chain. The finding of this relationship contributes a significant effect on explaining the theory

Theoretical Review and Hypotheses Development

Supply Chain Management Theory

Supply chain refers to a network of organizations that are involved, via upstream and downstream linkages, in the various processes and activities which produce value in the form of products and services in the hands of the final customer (Christopher, 2011; Christopher, 1999). According to Chopra and Meindl (2013) supply chain includes suppliers, manufacturers, distributors, retailers, and customers, whereby customers are the core focus of the chain. This is because the primary purpose of any supply chain is to satisfy customer needs while generating profit for itself. Also, Chopra and Meindl (2013) commented that the supply chain is characterized by the flow of information and fund in both directions while products flow from suppliers to consumers. Also, Näslund and Williamson (2010) presented a supply chain as a network of companies that root from the original supplier to end-consumers. Generally, the supply chain encompasses several dimensions of the flow of physical items, information and money which includes the directions of upstream and downstream activities (Waters, 2003). Supply chain management involves nearly harmonization and shaping of the commercial practices of the players in the supply chain for

ensuring availability of products at effective-cost manner (Forker et al., 1997). A fruitful SCM execution is predicted to facilitate good relationships among players within the supply chain to the extent of fostering consumers' loyalty while enhancing organizational performance (Ou et al., 2010).

One of the greatest focusses of supply chain management in a contemporary business environment is on managing the green supply chain. According to Beamon (1999) green supply chain entails the extension of the old-style supply chains to include actions that target at keeping at minimal surroundings effects of products all over their whole existing time, such as friendly forming, efficiency, keeping at minimal detrimental materials and products recycling or reusing. Green supply chain management refers to the collaboration of the organization with its supply chain partners so as to manage the intra- and inter-organizational environmental practices (Wu, 2013). Organizations are being forced to apply GSCM due to some laws and regulations, the need for self-differentiation especially in a competitive industry and lastly for staying competitive especially when competitors have already adopted GSCM. The coverage of GSCM captures implementation and governance of the overall surroundings monitoring programs through enhancing, guiding and putting into action several strategies of reducing, re-using, re-working, re-furbishing, re-claiming re-cycling, re-manufacturing and re-versing (Masudin, 2019). Kafa et al. (2013) specified three green supply chain performance dimensions which are green economic supply chain performance, green environmental supply chain performance and green social supply chain performance. However, this study focuses on green economic supply chain performance to capture issues related to surroundings cost, old-style supply chain cost, excellence, agility and sensitivity

Transaction Cost Economics Theory

Transaction cost economics (TCE) is among of theories that belong to contemporary institutional economics which occasionally is denoted as organizational economics paradigm and is usually tailored at cost-effective monitoring. Monitoring is widely considered as a mechanism of firms that is seen in forms of a certain model that supports effective-cost dealings in which property rights exchange is observed (Williamson, 1991). TCE is tailored at efficiency to keep at minimal the total cost of the supply chain that attributes to green economic supply chain performance and enhance green economic product purchase (Glavee-Geo et al., 2020). Most ghosts under TCE are said to be bounded rationality, uncertainty/complexity, asymmetrical information and opportunism that may lead to failure to minimize the total cost of supply chain and consequently failure to attain green economic supply chain performance (Yannis & Kemerer, 1992; Williamson, 1991). This article is primarily based on eradicating the presence of asymmetrical information between purchasing officers and suppliers as a weapon for enhancing green economic supply chain performance that supports the purchase of green products. Generally, the presence of perfect information resolves problems of bounded rationality, uncertainty/complexity, and opportunism as well as information asymmetry that may hinder green economic supply chain performance. Therefore, local government purchasing officers should ensure that there is symmetrical information between them and their suppliers to ensure the presence of a green economic supply chain that fosters the purchase of green economic products.

Institutional Theory

This theory is mostly grounded by the institutionalization concept in the organization. Most of the earlier authors developed different definitions of institutionalization as the base for theory development (Selznick, 1957). The extent of institutionalization varies across organizations, for instance, organizations with more specific goals and those who are more specialized and technical in operation are considered to be less subjected to becoming institutionalized compared to those lacking these features (Selznick, 1957). Moreover, Selznick (1957) conducted several analyses and ended up with a modified definition of institutionalization as an adaptive process. Thus, according to Selznick (1957) institutionalization entails infusing with values beyond the technical requirements of the assignment at hand. However, the description of institutionalization as per Selznick (1957) was subjected under criticism by Scott (1987) who argued that Selznick's conception of 1957 remains largely to be definition rather than explanatory as it defines and describes the process without clearly accounting for it. According to Berger (1967) institutionalization as a process entails actions repetition over time that assign similar meanings by self and others. Institutionalization occurs when there is a mutual distinctive practice among players of the supply chain (Berger, 1967).

Institutional theory suggests that organizations experience three types of isomorphic pressure: coercive or regulatory, normative, and mimetic (Wu et al., 2012). Coercive pressure refers to pressure from entities that have resources on which an organization depends and is being considered as essential in imposing authorized standards to shape organization operations and conduct by regulatory means. Moreover, conformity in the course of coercive pressures happens through the influence put forth by those in power such as government agencies which may influence the actions and operations of an organization (Zhu & Sarkis, 2007). However, few studies have allied institutional theory for understanding issues of actions that pay attention to sustainable variation between firms that have congruence fields. Investigating how firms variables contingent organizations' response to exerted force plays an essential chance to establish institutional theory while attributing its capability to stand-in a proper knowledge of reasons for firms to do a variety of environmental and management strategies (Delmas & Toffel, 2011).
According to Kim et al. (2015), institutional pressures are believed to be experienced from both external and internal to the organizations in the forms of policy rules and supervisions (Grekova et al., 2014). This study is based on exploring the role of public authorities such as the Public Procurement Regulatory Authority (PPRA) in regulating green economic supply chain performance.

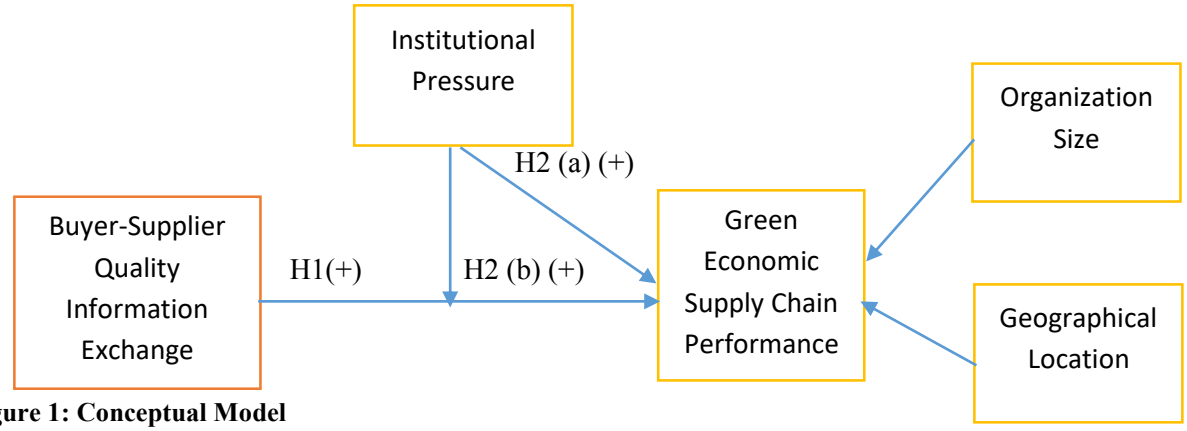

Figure 1: Conceptual Model

Research Model and Hypotheses

Kang and Moon (2016) argued that Supply chain managers are consistently mentioning the vital importance of information exchange when improving supply chain performance as information exchange can positively enhance the supply chain performance. Also, Marinagi et al. (2015) stated that in order to facilitate the interaction between supplier and customer, supply chain partners must organize their practices through communication. They also found that information exchange between players within the supply chain positively influences general performance. In the green supply chain regular receiving and sending information tend to facilitate collaboratively working that lead to knowledge transfer, which assists in discussing and finding solutions used for achieving cost minimal objective (Chu et al., 2017). Also, the information systems enable information exchange by providing it with connectivity in the supply chain leading to frequent and timely communication (Sinnandavar et al., 2018). Thus, quality information exchange among partners can affect the green economic supply chain performance. As a result, this study hypothesizes a linkage between quality information exchange and green economic supply chain performance.

H1: Quality information exchange is positively associated with green economic supply chain performance.

Partners in the supply chain must be willing to exchange information such as capability, capacity and performance matrix as most of these metrics are governed by international laws like patent rights, fair competition and many others (Katunzi & Zheng, 2010). From the green supply chain management perspectives the key players have to achieve both customers and legal requirements as these pressures may influence the adoption of both environmentally and economically responsible behaviour (Delmas & Toffel, 2011; Rivera, 2004; Hanim et al., 2012). Also, organizations have internalized the environmental practices because of the internal and external pressures as well as their awareness of the consequences of ignoring the importance of environmental consideration (Narasimhan et al., 1998).

Based on supply chains, it is necessary to maintain competitiveness at the inter-supply chain level and to respond to consumers' demand for both environmental and economic sustainable supplies (Hult et al., 2007). This is due to the fact that supply chain partners are taking more and more initiatives towards minimizing logistics costs of which is expected to have a higher impact on the green economic supply chain performance. Bringing buyers and suppliers of organizations together tend to induce isomorphism of their actions and provide opportunities for both deliberate and unintentional mimicry (an attribute of culturally-cognitive institutional pressure). Purchasers' compliance with the green products aims of the organizations might be partly attributed to the pressure of the regulative institutional level. Public authorities enter into contracts with the industry through organizations that act as intermediaries on behalf of their member organizations.

Furthermore, being a member of a chain employs a normative influence on organizations thus, it will be inclined to adopt a level of a green economic supply chain that is perceived as common for all members (Miemczyk, 2008). Otherwise, they would experience peers' pressure (Tate et al., 2011). The capability is composed of reinforcing practices and processes within the organization. These processes are a key mechanism for stimulating, measuring and reinforcing compliance on green economic supply chain performance (Lawson & Samson, 2001). On the other hand, Zhu and

Sarkis (2007) stressed that regulations and regulatory enforcement, are termed as main pressures for adopting green economic supply chain practice as they may affect the economic performance of firms in the same industry. Laosirihongthong et al. (2013) argued that legislation and regulation are positively related to green economic supply chain performance as one of the dimensions of green supply chain performance. Thus, this paper proposes two more hypotheses as follows;

H2 (a): Presence of institutional pressure is positively associated with green economic supply chain performance.
H2 (b): Presence of institutional pressure reinforces the positive relationship between quality information exchange and green economic supply chain performance.

Methods

Empirical Setting

The paper focuses on green economic supply chain performance for local government supplies of Tanzania from local government purchasing officers' perspectives. This empirical setting is essential due to several facts. First, in ensuring green economic supply chain performance of local government supplies, the issues of quality information exchange between local government purchasing officers and suppliers are critical in enhancing the acquisition of green supplies. For example, Beamon (1999) suggested that a green economic supply chain should be characterized with supplies acquisition that considers costs of shipment; storage; information exchange; and setting. This has meaning for governing matters of public policy in the area of public green procurement. Second, to see the effectiveness of regulatory bodies such as Public Procurement Regulatory Author (PPRA), Tanzania Bureau of Standards (TBS) and National Environment Management Council (NEMC) just to mention a few in enhancing green economic supply chain performance. Third, a significant amount of Tanzania budget is allocated for purchasing supplies that are mostly consumed by local government councils.

Data Collection

Prior to framing the questionnaire instrument, discussions with the heads of purchasing departments in the local government district councils were conducted to be aware with their views. It is argued that basing on mail or email in collecting data particularly in economic growing countries leads to a small number of participants. There are 185 district councils of Tanzania with 185 heads of purchasing departments that are located either in rural or town. The purchasing heads department were selected based on their experience in that position of at least one year. The key informant approach as suggested by John and Reve (1982) to collect data through distributing questionnaires to heads of purchasing departments who are well familiar with the study problem was followed. In this research, the key informants were heads of district council purchasing departments who were conversant about the purchasing process. The questionnaires were distributed to all 185 heads of the district council purchasing department of Tanzania with a general reply rate of 94.6% (175 completed surveys) and an effective response rate of 89.7% (166 perfectly filled questionnaires).

Table 1: Sample Characteristics (n=166)

Demographic Characteristics	Category	Frequency	Percent
Purchasing department geographical location	Town	125	75.3
	Rural	41	24.7

Measurement

The article model comprises three constructs with multiple measures. Measures were assumed from previous studies to adhere to content validity; but, the phrasing of each construct was reformed to fit this article. Buyers-suppliers quality information exchange comprises five measures that were assumed from Miller (2005) and Teng et al. (1995). The six questions for institutional pressure were adapted from John et al. (2001) and Chu et al. (2017). Moreover, the six questions for green economic supply chain performance were adapted from Hervani et al. (2005); Zhu and Sarkis (2007); Beamon (1999) and Olugu et al. (2011). The measures, their originality, average, variation, and scores are as presented in Table 3. Moreover, two variables with only one item that is purchasing department location (see Table 1) and a number of professionals in the purchasing department are used as controls.

Common Method Variance

Common method variance (CMV) assessment for this study was conducted as proposed by Jarvis et al. (2003) based on Harman's (1976) one-construct approach. The one construct that evolved from the unrotated construct solution based on the principal component analysis method accounted for 41.778% (< 50%). The assumption is, if one-factor scores above 50% of the variation, there exist sufficient chances of CMV occurrence (Podsakoff & Organ, 1986). Thus, based on Harman's (1976) single-factor method it can be concluded that there is no possibility of CMV bias to impair the outcomes of this article.

Data Analysis

With the help of SmartPLS 3.3.3 version, this article used structural equation modeling basing on variance as analytical technique proposed by (Ringle et al., 2015). At the start, the preliminary assessment of items was performed on examining constructs. The Kaiser-Meyer-Olkin (KMO) score of selection suitability was .894 while of Bartlett's test of sphericity was substantial (X^2 = 1525.745, df =136, p=.000), implying suitability of the data for carrying out factor analysis. Table three (3) expresses the construct scores (> .65) based on SmartPLS assessment for the model measures as used in this paper. The extent to which a construct measures what it was intended (i.e., convergence of the construct)) and the manner in which one construct distinguish from other constructs (i.e., discrimination ability of the construct) were evaluated. The composite reliability and Cronbach's alpha scores for the employed latent variables were more than the agreeable score of at least .70 (Hair et al., 2017). Average variance extracted (AVE) score of .50 implies an agreeable level (Fornell & Larcker, 1981) for convergence acceptability. The AVE were between .543 and .659 as indicated in Table 2.

The presence of construct discrimination shows the degree of variation of one latent construct to other latent constructs as employed in a particular study. A match of the AVE square root scores and the associations between the latent variables as applied in this study and as presented in Table 2 adheres to Fornell and Larcker's (1981) condition in warranting the existence of constructs discrimination. Supplementary assessment based on measures cross-scores as presented in Table

4 offers additional evidence of both converging and discriminating ability, such that all latent variables as employed in this study were significantly associated with their measures than with any other latent variable. Moreover, based on Hair et al. (2017); Hair et al. (2018) and Henseler et al. (2015) it can be observed that the Heterotrait-monotrait ratio of correlations (HTMT) scores was under .85, revealing that discrimination ability is considered amongst any of the two latent variables. Based on the above assessments, it can be concluded that all the latent variables (constructs) indicate support of suitable validity.

Table 2: Reliability, AVEs and Discriminant Coefficients (n=166)

Construct	Composite reliability	Cronbach's Alpha	AVE	1	2	3
Buyer-supplier quality information exchange	0.870	0.906	0.659	**0.81**		
Institutional pressure	0.900	0.924	0.669	0.49	**0.82**	
Green economic supply chain performance	0.833	0.876	0.543	0.52	0.53	**0.74**

Note: Bold numbers on the diagonal shows the square root of the AVEs; Numbers below the diagonal represent construct correlations.

Table 3: Construct, Indicators, Descriptive Statistics and Loadings (n = 166)

Construct	Question	Indicator	M	SD	Loadings#
Buyer-supplier quality information exchange Miller (2005) and Teng et al. (1995).	Information exchange on timely	QIE1	4.18	2.13	0.851***
	Adequate information exchange	QIE2	4.46	2.07	0.831***
	Accurate and credible information exchange	QIE3	4.23	1.98	0.856***
	Good consistency in information exchange	QIE4	4.07	1.90	0.784***
	Security and easy availability of the information exchanged	QIE5	3.04	1.93	0.730***
Institutional pressure John et al. (2001) and Chu et al. (2017)	Strict government regulations on recycling, environmental protection and consumer rights protection	INSTP1	3.70	1.98	0.756***
	Preferential subsidy and tax policy on green supply chain (GSC) implementation	INSTP2	3.00	1.88	0.896***
	Potential conflicts between services and environmental regulations	INSTP3	2.50	1.67	0.812***
	Establish green image to the public	INSTP4	3.44	1.91	0.767***
	Consumers have a strong influence on our purchasing department to enhance green supply chain performance	INSTP5	3.11	1.99	0.846***
	The increasing environmental consciousness of our customers	INSTP6	2.89	1.93	0.821***
	Lower delivery cost	GESCP1	4.11	2.13	0.821***
	Set budget for recycling cost	GESCP2	4.84	1.93	0.757***

Green economic supply chain performance Hervani et al. (2005); Zhu and Sarkis (2007); Beamon (1999) and Olugu et al. (2011)	Lower inventory cost Lower information exchange Lower ordering cost Lower disposal cost	GESCP3 GESCP4 GESCP5 GESCP6	4.73 4.47 4.60 3.22	2.00 2.09 2.02 2.04	0.678** 0.668** 0.730*** 0.754***

Note: # Based on 5000 bootstrapping samples *** $p < 0.001$ (two-tailed), ** $p < 0.05$ (two-tailed).

Table 4: Demonstrating Discriminant Validity based on Cross-loadings

	Green economic supply chain performance	Institution pressure	Quality information exchange
GESCP1	**0.821**	0.480	0.476
GESCP2	**0.757**	0.388	0.272
GESCP3	**0.678**	0.320	0.278
GESCP4	**0.668**	0.308	0.333
GESCP5	**0.730**	0.296	0.340
GESCP6	**0.754**	0.482	0.499
INSTP1	0.429	**0.756**	0.355
INSTP2	0.470	**0.896**	0.435
INSTP3	0.437	**0.812**	0.487
INSTP4	0.349	**0.767**	0.352
INSTP5	0.473	**0.846**	0.393
INSTP6	0.432	**0.821**	0.378
QIE1	0.494	0.408	**0.851**
QIE2	0.397	0.387	**0.831**
QIE3	0.412	0.420	**0.856**
QIE4	0.389	0.433	**0.784**
QIE5	0.391	0.343	**0.730**

Note: Bold values significant at approximately $p < 0.05$

Findings

H1 specified an affirmative relationship among buyers-suppliers quality information exchange and green economic supply chain performance. The findings connote evidence for the affirmative impact of buyer-supplier quality information exchange on green economic supply chain performance ($\beta = .30$, $t = 3.98$, $p < .001$). Additionally, the positive association of H2 (a) between institutional pressure and green economic supply chain performance is also strongly supported ($\beta = .32$, $t = 4.38$, $p < .001$). However, regarding H2 (b), there was no support for the moderating effect of institutional pressure on the association between buyer-supplier quality information exchange and green economic supply chain performance ($\beta = - .21$, $t = 1.24$, $p = .22$). The effects of the control variables purchasing department geographical location (0 = Town, 1 = Rural) and organization size (number of professionals in the purchasing department) on green economic supply chain performance were significant. From Table 5 below it can be observed that purchasing departments that are located in rural areas have less impact on green economic supply chain

performance compared to purchasing departments that are located in town (β = - .11, t = 1.66, *p ≤ 0.10). Furthermore, it can be observed that organization size (number of professionals in the purchasing department) has a significant positive impact on green economic supply chain performance (β = .20, t = 2.94, p < .05).

Table 5: Structural Model Results, Effect Sizes (f^2) and Collinearity based on VIF (n=166)

Criterion	R^2	Predictors	Path coefficients	t-values#	f^2	VIF
Green economic supply chain performance	0.41	Buyer-supplier quality information exchange	0.30***	3.98	0.11	1.43
		Institutional pressure	0.32***	4.38	0.13	1.35
		Institutional pressure x Buyer-supplier quality information exchange	-0.21	1.24	0.08	1.33
		Purchasing department geographical location (0 = Town, 1 = Rural)	-0.11*	1.66	0.02	1.03
		Organization size (number of professionals in the purchasing department)	0.20**	2.94	0.05	1.67

Note: # Based on 5000 bootstrapping samples ***p <0.001, **p < 0.05 (two-tailed); *p ≤ 0.10 (two-tailed).

Discussion

This paper investigated factors influencing green economic supply chain performance for supplies of Tanzania local government district councils basing on the views of purchasing departments heads. Some findings in this paper predict factors attributing to green economic supply chain performance. It can be noted that buyers-suppliers quality information sharing and institutional pressure have significant influences on green economic supply chain performance. The influence of institutional pressure on green economic supply chain performance has the highest effect (f^2=.13), indicating that presence of regulatory authorities such as public procurement regulatory authority (PPRA) is amongst the very essential factors enhancing green economic supply chain performance when buyers and suppliers are engaged in a business. Similarly, the influence of buyer-supplier quality information exchange on green economic supply chain performance has a high effect (f^2=.11), indicating that presence of quality information such as is among the most important factors enhancing green economic supply chain performance when buyers and suppliers are engaged in a business.

Institutional pressure has been considered as one of the key regulator that enhances green economic supply chain performance (Grekova et al., 2014; Kim et al., 2015). Many leading purchasing departments are looking to engage with suppliers that focus on green economic supply chain performance; but, frequently, purchasing departments are seldom in straight exchange dealings with suppliers. On the other hand, buyer-supplier information exchange significantly reduces suppliers' actions of deteriorating green economic supply chain performance (Eckerd & Hill, 2012). Conversely, presence of buyer-supplier quality information exchange tends to foster existence of green economic supply chain performance. Suppliers' actions that are not well

clarified and agreed among buyers and suppliers are said to reduce commitment on green economic supply chain performance (Eckerd & Hill, 2012). The development of information sharing among players in the supply chain tend to foster greater benefits such as promoting green economic supply chain performance (Graca et al., 2015; Kim & Choi, 2015; Lambe et al., 2001). The sharing of information acts as the superglue that connects players in the supply chain. Access by both buyers and suppliers to information such as proper supplies to be produced, materials to be used as well as upgrading opportunities to suppliers can help in enhancing green economic supply chain performance.

The presence of regulating institutions influence purchasing departments to search for green economic supply chain. Besides, purchasing departments voiding compliance with regulating institutions directives of purchasing green products tend to foster for poor green economic supply chain performance (Amankwah-Amoah et al., 2018). Green economic supply chain performance for purchasing departments can also be impaired by manipulation of officials from regulating institutions (Jelsma et al., 2017). The results portray that institutional pressure had a significant positive effect on green economic supply chain performance in line with the literature. Therefore, presence of institutional pressure is very important for enhancing green economic supply chain performance.

Information sharing fosters greater communication and transparency along and among the supply chain parties that ultimately enhances green economic supply chain performance (Vorley & Jodie, 2014). Through information sharing, transparency is extended to the suppliers and other supplying organizations, with managers who are good at communication and controlling issues of a green economic supply chain. In the setting of buyers-suppliers exchange dealings, Zhou et al. (2015) emphasized the significance of communication in enabling green economic supply chain performance. Perceptions of deteriorating green economic supply chain in a buyer-dyadic relationship form is considered to be manageable through communication.

Theoretical Contributions and Implications

The study adds to theories, management and dogma (policy) implications to the existing studies. Firstly, the guiding model indicated some essential issues in the setting of the local government district councils purchasing heads of enhancing green economic supply chain performance for their supplies that to most extent lacks exploration. Green economic supply chain performance is cited as one of the greatest concerns in today's business operations success. Second, the paper suggested and established some associations between related variables. The theoretical implications concerning the main effects are; institutional pressure and buyer supplier exchange information. The impact of institutional pressure on the green economic supply chain is in line with institutions theory postulation where the existence of regulatory bodies foster good supply chain performance (DiMaggio & Powell, 1983).

Similarly, the impact of buyers-suppliers quality information exchange on the green economic supply chain is consistent with both supply chain theory and transaction cost analysis postulation where the existence of perfect information sharing through communication among players in the supply chain enhances a good supply chain performance (Harrison & Hoek, 2011). Other literature implications under control effects are; geographical location of being either in town or rural and number of professionals in the purchasing department (organization size). The paper suggests that

unlike the organization situated in rural areas, the organizations situated in town can successfully be connected to a good supply chain probably due to a good information sharing position. Furthermore, the number of professionals in the purchasing department (organization size) has a significant influence on enhancing the organization to connect to a proper (green) supply y chain.

Public Policy and Managerial Implications

The principal policy suggestion is, if green economic supply chain performance is to be attained and sustainable, the key is the presence of institutional pressure. To enhance the existence of institutional pressure there should be strict management rules on reusing, ecological safeguarding and consumers' privileges maintenance, special funding and tax policy on green supply chain implementation, presence of environmental regulations, force organizations to establish a green image to the public and increase environmental awareness to the customers (Chu et al., 2017; John et al., 2001).

Second, buyer-supplier quality information exchange is an essential factor for enhancing green economic supply chain performance. The effectiveness of buyer-supplier quality information exchange in influencing green economic supply chain performance can be attained if there are: timely information sharing, adequate information sharing, precise and credible information sharing, good and consistency in information exchange, security and easy availability of information to be exchanged (Miller, 2005; Teng et al., 1995). Thus, proper implementation of institutional pressure and buyer-supplier quality information exchange ensure green effective-cost source series (Beamon, 1999; Hervani et al., 2005; Olugu et al., 2011; Zhu & Sarkis, 2007).

Conclusion

The article focused on examining the views of local government district councils purchasing department heads in regard of enhancing green economic supply chain performance in a dyadic relationship form of buyer and supplier. Additional studies are suggested to include views from buyers and suppliers at once to come up with more thoughts concerning green economic supply chain performance. By providing empirical insights from purchasing departments heads of local government district councils of Tanzania, this paper motivates more studies in other contexts of purchasing departments such as in central government, other public institutions than local government district councils and private sectors.

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