An Appraisal of Interpersonal and Informational Justice on Strategic Supplier Superior Performance in Power Sector

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ABSTRACT

The rationale for effective inter-organisational buyer-supplier relationship is consistently governed by the extent of its commitment to equitable justice perception, relevant performance metrics and high utilization of sensitive predictors of performance outcomes. Based on the conceptual model from the perspective of system theory, the mediating role of trust, satisfaction and socialization would be examine against the effect of antecedent variable such as interpersonal and informational justice towards achieving superior supplier performance. The expectation is, there would be a greatest impact of informational and interpersonal justice on trust, satisfaction and socialization, with an indirect effect on supplier performance in a long term cooperative relationship. There are extensive study on the buyer-supplier relationship and how the buying firm manages its supplier though, recent researches have articulate the need to investigate the impact of informational and interpersonal justice on behavioural performance because of the little attention paid to it (Celani et al., 2008), and the effect of information on project outcomes (Bendoly & Swink, 2007) on supplier performance via the relevant yet to be examine mediating factors. In this paper we argue that, a relevant specific mutual justice perception is associated with socialization mechanism, trust, and satisfaction and supplier performance. We also explicate the antecedent conditions resulting to eventual superior supplier performance with anecdotal point of reference to our claim.

KEYWORDS: Mutual equity perception; Relationship perception; Perceived supplier performance.

1. INTRODUCTION

Rapid and conscious approaches to integrated supply chain management have influenced firms to seek for strategic supplier competitive advantage through much emphasis on the entire supply chain network. Purchasing has become a strategic business issue and the associated cost implications assumed to have engulfed the largest proportion of material, parts and components acquisition budget. But justification and refutation of supplier evaluation and selection in enhancing supply chain performance can only be feasible if there exist a free and fair ground for both the exchange parties in the supply chain value network. Though, articulation of servitisation and performance measurement (White et al., 1999; Love-Lock & Gummesson, 2004; Neely, 2007) to focus on value-in-use through life rather than value-in-exchange (determination of the extent of customer satisfaction due to services rendered) so that the value is to be viewed from the customer perspective (Ng & Nudurupati, 2010) in order to achieve accurate measurement of value in use through life (Ostron et al., 2010). We viewed Power Holding Company of Nigeria (PHCN) as the upstream customer and their contractors as suppliers, so as to answer the call for determination of servitisation and performance measurement for tomorrow’s challenges (Bititci et al., 2012) because of its impact on SME, public sector and nonprofit making organizations and their global network relevance. This would be primarily concern with the interplay of justice to determine the outcome of distributions and allocations, respect, politeness, empathy and dignity or smooth, effective and efficient two-way of communication between buyer-supplier. Supplier performance measurement often tends to be a factory specific evaluation and selection process. The greatest task of the buying firms or the decision makers is to identify the relevant best criteria that would measure the improvement of the relationship on the performance of their suppliers over a period of time. Performance measurement systems have been categorized based on resources, output and flexibility (Beamon B.M., 1999). However, it has been concurred that favourable organizational climate and flexibility influences customer satisfaction (Moshtaghi et al., 2012). And that interpersonal justice of an individual perception of their leaders within the organization is link with organizational citizenship behavior (Cho & Dansereau, 2010). Implying that the more a leader interacts fairly with the subordinate, the more the subordinate go outside his/her
fore to carry out extra work so as to equally satisfy the leader and by so doing in our model it means an expected improvement of supplier performance as a result of trust, satisfaction or socialisation.

Therefore, it is imperative to place more emphasis on the performance measures and metrics from the perspective of a balanced approach models and a clear distinction between strategic, tactical and operational level metrics (Gunasekaran, A., Patel, C. and Tirtiroglu, E., 2001). Even though not empirically tested, there is a difference in the measurement criteria in the developed economies and the developing nations. What tends to be working in the former is not feasible in the later as a result of economic, socio-cultural, geographical, technological innovations and exposure. Though, it has been argued that larger firms are more flexible in terms of expending resources for the course of ensuring strategic purchasing practices than the smaller firms would have had the opportunity (Boyer et al., 1996). Emphasis must be placed on resource measures, output measures as well as flexibility measures in determining the accuracy of supply chain performance measurement systems (Beamon, B. M, 1999).

2. THEORETICAL BACKGROUND

It is becoming increasingly difficult to ignore the fact that supplier evaluation and selection in the new global economy has become a central issue in supply chain management practices. Traditionally supplier evaluation and selection decision makers have subscribed to the belief that a single criterion say price is in essence adequate factor in the evaluation and selection of both existing and potential suppliers for better performance. This concept have been challenged by several relevant bodies demonstrating the efficacy of a multi criteria decision making process and integrating cardinal and ordinal attributes to achieve optimum supplier evaluation and selection objective for a superior performance. Coupled with the fact that supplier evaluation and selection is the collaboration of buyer-supplier Companies, with a consistent shared common goals and to be engaged in a long term business relationship for a network value creation and sustainable competitive advantage. These companies and its activities are viewed as a virtual complex system towards achieving reasonable performance must undergoes processes through which such complex systems makes a whole. Therefore, this requires putting into consideration a theoretical reference point for carrying out such a relationship in the most effective and efficient manner as described in the next section.

2.1 Systems Theory

This study is initially underpinned by the systems theory to deal with supplier evaluation and selection problem towards achieving superior supplier performance in supply chain system. Determination of suitable criteria and suppliers for a better performance has become a key strategic, complex and unstructured decisions faced by the decision maker(s). The nature of this interconnectivity/inter-relationship between the two or more firms is further enhanced by socialisation mechanism. Therefore, to this effect systems theory is viewed as an integral part of this research work that will foster and facilitate the relationship and collaboration between the buyer firm and supplier firm respectively. Both supplier firm and buyer firm is looked at as a system that the presence of some objects and their attributes related to each other and to their environment comprising of input, process and output to form a whole system (Schoderbek et al., 1990). Interestingly it is further defined as “a system that is made up of entities and the linkages between the entities” (Ho and Sculi, 1995, p. 506). The systems approach viewed different organization as a group binds together to achieve a common goal. Thus this research work considers all phenomena as a system. There are two essential categories of a system in an organization; the societal system and the technical system (Margaret et al., 1999). These are interdependent and have an effect on one another, so much that what affects one affects the other. The technical systems involves the attainment of firms objective as a result of using technology, machinery, facility or equipment and social systems comprises of the individual skills, attitudes, values, communications and how it is being used to achieve a group or organisational goals (Margaret et al., 1999).

The benefit of Systems theory is its ability and flexibility to potentially accommodate multi-disciplinary research framework approach. Although there are uncountable set of systems but schoderbek et al. (1990) posits that a complex social organizations are referred to as cybernetics systems which is characterized as; exceeding complexity, probabilistic and self regulatory. But for the purpose of this study the buyer-supplier supply network inter-relationship is considered to be a cybernetic system. Because, the entire supply base network is a feature of a complex activities emanating formally or informally towards the achievement of the business objective. As a result of that so many factors a set into play that is sometimes very difficult to distinguish one from the other. For instance, supplier evaluation and selection decisions seems to be a complex and difficult task faced by most purchasing managers which cannot be carried in isolation without a link to several other factors and firms. Thus, attempts have to be made in incorporating the function of interpersonal and informational justice in ensuring a smooth supplier performance target within the power sector environment.
It is in that regard that was recommended to managers to have a mental intellects and understanding of supply network complexity and dynamism. Therefore, supply network is said to be a complex adaptive system (Choi et al., 2001). In their study that recognizes supply chain as a complex system, they find out that a slight change in one place may cause disruption to entire system because it is `emerging, self-organizing, dynamic and evolving (Choi et al., 2001). This gives a reflection on the fact that complex adaptive supply network is the coming together of firms seeking to reduced cost, maximise profit and livelihood by collaborative long term relationship and information sharing. It is a value systems that consist of a network of firms that necessitate both material and knowledge flow (Porter, 1985). Managers thinking along the systems theory philosophy stand to benefit enormously as identified by Schoderbek et al. (1990) from: it broadened the managers perspective on task and identify with all the functional areas in the units or subsystems, allows managers to relate personal goals with organizational goals, organisational will be able to structure subsystems to be consistent with overall systems objective mission and vision and education for overall systems and subsystems effectiveness is achieved.

3. How fairness perception does affect supplier performance?

Justice and its dimensions have been extensively studied by different researchers from divers’ perspectives to observe its influential effect between buyer-supplier fairness in relational management (Frazier, 1983; Dwyer et al., 1987). Therefore, mutually perceived justice behavior determines the perception of buyer-supplier ties which results into acceptable level of relationship performance (Liu et al., 2012). Thus signifying the fact that actions and behaviours of trading partners may affect their relationship, positively or negatively depending on their perceptual dispositions and the extent to which justice fairness is assumed. The conceptual model assumes that, fairness between buyer-supplier will affect trust, satisfaction and socialization which would have a simultaneous impact on supplier performance. At both the organizational and individual stand point, perception of fair treatment encourages high positive behavioural outcomes (Duffy et al., 2013). In that both the buying firm and the supplying firm must treat each other as a valuable asset, reciprocal exchanges of monetary and non monetary incentives such as fairness in undertaken business engagement (Smals and Smits, 2012). They also established the fact that there was indeed a significant impact between how fairly suppliers perceived they were treated and their readiness for a long term relationships performance. According to (Pan et al., 2012), perceive justice fairness has a positive effect on customer loyalty. This draws our attention to distinctively provide in-depth assessment of interpersonal and informational justice and its relevance to trust, satisfaction and socialization in contemporary dominant times within the buyer-supplier dyads in the power sector towards facilitating and promoting superior supplier performance as conceptually shown in Figure 1.

![Figure 1. Proposed conceptual relationship between fairness and supplier performance](image_url)

3.1 Interpersonal justice and supplier performance

The perception of interpersonal justice is termed to be the determination of the extent to which individuals are treated with respect, dignity, politeness, courtesy in relation to those charge with the responsibilities of executing procedures and determination of the possible outcomes (Colquitt, 2001). Therefore the feeling that one party is treated fairly by the other will results to interactional justice (Smith et al., 1999). This shows that either buyer or supplier feels that they were treated with empathy, courtesy, politeness and propinquity effort is been made towards problem solving in the dyads. The way and manner by which people were treated to a large portrays their level of satisfaction and agreement with the outcome, whether better, favourable or unfavourable. This will go a long way in the management of buyer-supplier relationships. Human beings are sensitive social animals who ought to be treated with care and respect at all the time in the buyer or supplier daily transactional activities for effective relationship performance outcomes.
Because fair perception of relationship performance outcomes whether at the individual or organizational context influences favourable disposition of behavioural outcomes (Duffy et al., 2013). They put forward the idea that of all the four justice dimensions it is only the distributive and procedural justice that are associated with the suppliers willingness to implement customer relationship strategy.

It is worth stressing that interpersonal justices leads to individual or interorganisation attraction and willingness to disclose secrets, personal information, creates positive behavior and reliable decisions in favour of the exchange parties (Huston and Burgess, 1979). Attraction is well grounded to be a positive attitude between individuals in an organizational set up (Huston and Levinger, 1978). As with (Zhao et al., 2012) interactional justice is considered to have significant influence on satisfaction. Interactional justice is confirmed to have been positively associated with trust and satisfaction towards building a strong shared value in the channels that may influence a cooperative behavior (Kashyap and Sivadas, 2012).

Though it would have been more robust to have gathered the data from divergent sources in order to have multiple individuals perceptual outcomes. Thus, it supports the fact that interactional fairness has a greater ability in stimulating relationship quality. Recent work in the study of relationship dissolution, trust is found to reduce the effect of unfairness in the relationship management performance (Yang et al., 2012). Several attempts have been made and found support for interactional fairness and satisfaction (Tax et al., 1998; Smith et al., 1999; Maxham and Netemeyer, 2002). However, from the perspective of Affect Control Theory (ACT), it was established that customer justice perception is associated with affect via service recovery performance (Chebat and Slusarczyk, 2005). Further examination of customer online repurchase intentions as a results of antecedent four justice dimensions reveals that interpersonal justice bidding is strongly associated with trust (Chiu et al., 2010). According to (Ha and Jang, 2009) in the study of restaurant customers across perceived justice between service recovery effort, behavioural intentions and relationship quality makes several interesting points. Recovery efforts facilitate problem solving in the event of service failure based on the antecedent justice dimensions and interpersonal justice aid emotional treatment adequacy from customer complaints. Thus, interactional justice has significant effect on behavioral intentions, though without a moderating effect of relationship quality on interactional justice (Ha and Jang, 2009) and a significant relationship with positive affect (Yi and Gong, 2008). Thus, based on the above we posits that:

\[ H_1: \text{Interpersonal justice is positively associated with supplier performance} \]

3.2 Interpersonal justice and relationship perception

In accordance with (Wong, Ngo and Wong, 2006) perspective in examining the relationship between perceived justice, trust and behavior of workers towards their supervisor in joint ventures and public enterprise in China, found without doubt interactional justice to have a significant positive influence on trust in supervisor. It also shows support for supervisory and organizational trust within the context of the marketing employees (DeConinck, 2010). Following an examination of a reminder letter from tax office and its counter effect on informational and interpersonal fairness, reveals that in communicating to receivers those letters that show respect, empathy or humility tends to be well received and acknowledge positively (Wenzel, 2006).

\[ H_{1a}: \text{Interpersonal justice has a significant relationship with (i) trust, (ii) socialization and (iii) satisfaction} \]

3.3 Informational justice and supplier performance

It has been successfully established that fairness determines the future outcome of a relationship positively or negatively (Fong, 2010). Unjust treatment of a partner may lead to deterioration of future return on investment, negative media publicity, firm image or payment of fines (Watson et al., 1996; Carpenter and Sanders, 2002 and Wade et al., 2006). Two ways communication is in effect proven to be associated with trust and mutual commitment in the study international joint venture partnership via the social exchange context (Kwon, 2008). Situational information dissemination within the context of buyer-supplier collaboration is inestimable. Because justification of its impact on performance is by far surpasses task related outcomes, project completion period, but also affects how potential decision makers perceive the behavior of their relationship partners. This demonstrates the need for asset investment in technological equipments due to sensitivity of information effect on projected future behavior and performance (Bendoly and Swink, 2007). Clarifications of shortcoming of the service provider or service failure to customers may reduce negative justice perception (Celani, et al., 2008). Informational justice seems to be highly experienced relative to service delivery in the presence of compensation, apology and other psychological responses (Averill, 1973; Navasivayam and Hinkin, 2003 and Matilla and Cranage, 2005) as well as resource sharing behavior of the affected individuals (Bendoly and Swink, 2007). Customer requirement and ethical procedural compliance and market competitive knowledge are acquired as a result of two way information communication in the buyer-supplier relationship performance (Liu et al., 2012).

Nevertheless, absence of fair interaction with employees and procedural compliance towards customer problem solving does not trigger negative actions rather it may lead to failure satisfaction of both (Rio-Lanza et al., 2009).
 Preliminary work on informational justice was conceptualized by (Hornibrook et al., 2009) highlights the need to link organizational outcomes and organizational performance in their models 1&2 respectively.

\[ H_2: \text{Informational justice has a significant relationship with supplier performance} \]

3.4  **Informational justice and relationship perception**

Informational justice is perceived to significantly influence bidding justice that may lead to trust (Chiu et al., 2010). Informational justice positively impact on trust in management in the study of how knowledge is shared in the virtual communities of practice that enhances individual consistent assistance on one another (Truxillo et al., 2002). It has conclusively been shown that informational and distributive justice is dependent on intention to reuse e-customer service and trust on service sales persons (Turel et al., 2008) and it also has an effect on trust (Gilaninia et al., 2012) in supply chain.

\[ H_{2a}: \text{Informational fairness has a significant relationship with (i) trust, (ii) socialization and (iii) satisfaction} \]

3.5  **Relationship perception and supplier performance**

An investigation of the impact of implementing procedural and distributive justice transennt buyer-supplier behavioural outcomes shows no relationship between satisfaction and performance (Griffith et al., 2006). Trust is an important predictor in the observance of performance relationship. It can lead to strong relationship bond and collaborative buyer-supplier interaction (Wu et al., 2010). With the advent of trustworthiness within the dyads, business opportunities and competitive stand would be achieved through utilization of e-marketplace provider, because of the positive relationship between trust and relationship performance (Chien et al., 2012).

Monitoring supplier performance is not an end in itself but, a process of socializing the buyer-supplier towards optimum performance success (Cousins et al., 2007). Socialisation mechanisms have a direct effect on business performance measureable by market share, time to market and lead time reduction (Cousins et al., 2008). For suppliers ability to share and invest its technical capabilities resources with the buyer ensued socialisation mechanisms that effectively improve training and product development. That is to say by making this investment by the supplier it surely improves supplier performance in the areas of product quality, delivery time and cost control (Carr et al., 2008). It is worth mentioning that an articulation of the impact of supplier financial performance, supply management capabilities and socialization is a worthwhile area for investigation (Lawson et al., 2009). High level of socialization enhances learning and creation of “new novel knowledge” (Lawson et al., 2009) and call for future study to take multiple data source for validation and improvement.

\[ H_3: \text{Supplier performance has a significant relationship with (i) trust, (ii) socialization and (iii) satisfaction} \]

4. **METHOD**

The study has a targeted total population of 11 Electricity Distribution Districts geographically distributed within 11 states of Nigeria formed the population of the study. However, the sample size of the study is six hundred (600) for surveys to be surveys completed by the PHCN procurement executives. About 85% of the procurement executives must have worked with the company for more than 5yrs for them to be eligible to be part of the study and must have a knowledge of a public procurement act 2007.

4.1  **Measurement**

**Interational justice:** We adopted the six item scale of (Yi & Gong, 2008; Colquitt, 2000) and modified to suit the present purpose using point likert scale in assessing how buyer perceive supplier fairness. The scales are supplier treat us with dignity, communicate in respectful manner, supplier understand our needs,

**Informational justice:** Items for measuring informational justice was adopted from (Shapiro et al., 1994; Kumar et al., 1995; Chiu et al., 2010), “suppliers provide accurate information about products, explain adequately buyers queries or questions, supplier provide trade policies and changes, supplier provide information about order processing

**Trust:** Is a four measure item scale adopted and modified from (Donney & Cannon,1997; Geffen & Straub, 2004; Chien et al., 2012) “our suppliers are trust wythy, our suppliers keep our best interest in mind, keep to promise made our firm, are honest”

**Satisfaction:** Assessed using a four item scale adopted and modified from (Ganesen, 1994; Geysken et al., 1999; Meyer & Allen, 1997; Kashyap & Sivadas, 2012) “we are satisfied with interacting with this supplier, our supplier is worthwhile…

**Socialisation mechanisms:** Would be measured using four item scale based on how series of actions and functions influenced familiarity and frequency of contact between buyer-supplier. The design scales capture cross functional
teams, joint workshops, regular supplier conference and matrix reporting structure (Chung et al., 2000; O’Donnell, 2000; Cousins et al., 2008).

Supplier Performance: Four items scales were used to assess supplier performance; significant improvement in supplier product quality, supplier delivery time improves, schedule flexibility without cost or time penalty and improvement in cost control (Carr et al., 2008; Narasimhan et al., 2008).

Control: We control for several plausible constructs such as firm size, length of relationship (Cousins et al., 2008).

4.2 Measurement validity and reliability

After data collection we will run for demographic frequency to confirm for missing values to be sorted out corrected after a repeated running, and also to determine variables with lower than 1 or greater than 5 scales. Verification of dimensionality and reliability of the survey, for critical purification of the data, factor analysis, correlation analysis, coefficient alpha and regression analysis would be conducted to have a feel and examine relationship. The key informant approach would be adopted by collecting data from an expert or knowledgeable individuals from each sub station in order to have an in-depth understanding about the investigating phenomena at hand. Normality test of the data would be conducted using the skewness and kurtosis, histogram and P-P plots test in order to establish normality. This would further be streamline based on the determination of the data set via skewness and kurtosis to check if there is any deviation from normality distribution between ± 1.0. Consistent with the validation and reliability of the instrument, a principal component factor matrix with varimax rotation method with Kaiser Normalisation would be employed to determine the suitable factors with an eigenvalue of greater than 1. In order to check the factor loadings, the analysis would ensure that each factor loadings is greater than 0.7 with an approximate difference of items loadings between factors of greater than 0.3. This will confirm and show the extent of convergent and divergent validity (Hair, Black, Babin, Anderson and Tatham, 2006). Inherently, for a reliability analysis demands that the item to total correlation must be greater than 0.5 with a cronbach alpha (α) of greater than 0.6 respectively (Hair et al., 2006). Cronbach alpha should have a value above 0.7 (Nunnally, 1978). Because this will serve as a check to the internal consistency of the items used in the scales by examining how well the individual items in the scales represents the common underlying constructs (Spector, 1992). However, principal components analysis of the scales and sub-scales with varimax rotation would be perform to show how the dimensions of differentiation were applied. This will be achieved through; 1) Bartletts Test of Sphericity-to determine the inter-independency of the subscales of the scale, 2) Kaiser-Meyer Olkin Measure of Sampling Adequacy-to determine the extent of sample sufficiency that would allow for further analysis of the variables (Kaiser, 1974). Therefore 41 to check how the items were loaded on the factors and the characteristics root (Eigenvalue) ≥ 1 to be adopted in order to determine the number of factor to retain (Hair et al., 1995; Sharma, 1996).

4.3 Analysis

Correlation and regression analysis will be run concurrently to determine the relationship between the variables of interest using pearson correlation to observe the P – value, r – value and n. Multiple regression analysis would be use to investigate the relationship between two or more independent variable and the single dependent variable as this will give support for further confirmation of the relationship between the variables. And also to observe the behavior of the models coefficient of determinations based on, (R², Adjusted R² to indicate the number of predictions in testing the hypothesis). Mediation analysis will be conducted via Hierarchical regression to check the theoretical grounds, causal relationship and contribution of each independent variable in predicting dependent variable following (Baron & Kenny, 1986) steps and further confirm the effect of the mediation through Sobel’s test (1982).

5. CONCLUSION

Several studies have revealed that it is not only distributive and procedural justice that acts on the relationship between buyer-supplier cooperation to achieve supply chain performance. Therefore little prior research attempted to link informational and interpersonal justice to supplier performance. It is important to empirically examine their linkages and to improvise potentially feasible projected future solutions between the dyads in relation to fairness in supply chain value network disputes and opportunism (Zhu and Zolkiewski, 2002) most especially in buyer-to-buyer problem solving. What we know about interpersonal and informational justice with respect to satisfaction, trust and socialization mechanisms towards supplier performance is myopic, conceptual and inconclusive for general theoretical justification. Power generation has become an inevitable programme if only country wishes to achieve vision 20-20-20 global industrialisation in SME’s and other value chain industries. It will also facilitate expansion of capacity and growth and development (Oluwale et al., 2011) of the Nigerian economy at large. It is worth mentioning that buyer-supplier paradigm is a multidimensional nested relationship that ought to be treated with caution, skills and expertise by the managers and researchers relative to glaring outcomes. Therefore this paper contributes to the body of knowledge by
virtue of providing conceptual theoretical framework of the extended justice dimensions in relation to determining supplier superior performance.

6. REFERENCES