

Business-To-Business Model and Organizational Performance: The Role of Commitment-Trust, Value-Creation and Loyalty Relationships

EGBERI, Agbarha Kelvin PhD

Department of Business Administration and Management School of Business
Studies , Delta State Polytechnic,
Ozoro, Delta State, Nigeria. Email: kelvinegberi76@gmail.com

Abstract

This paper assessed business-to-business model and organizational performance of consumer goods companies in Nigeria. The study was anchored on the Business Action paradigm and the survey design was employed. Questionnaire was administered to two hundred and twelve employees of some selected consumer goods companies publicly quoted on the Nigerian Stock Exchange. The empirical model was based on business to business dimensions of commitment-trust, value-creation and loyalty and performance measures – annual sales growth and customers’ retention. Using descriptive (simple percentage mean, and standard deviation) and inferential (multivariate regression) statistical techniques, findings indicated that models of commitment-trust, value-creation and loyalty significantly affect the performance measures of organization. Given the empirical result, we recommend that consumer goods companies should enhance business-to-business relationships, particularly in areas of commitment-trust, value-creation and loyalty in order to enhance organizational performance. In fact, consumer goods companies should explore alternative business-to-business channels capable of enhancing data security, privacy and cybercrimes to further enhance annual sales growth and customers’ retention.

Keywords: *Business-to-business model; Organizational performance; Commitment-trust; Value-creation; Loyalty; Customers retention*

JEL Classification: *L25; M15; M19*

1. Introduction

In recent times, business-to-business (B2B) models play vital role in promoting business operations in both developed and developing countries. B2B refers to a situation where one organization makes a business transaction with another through a labyrinth of computerized network. According to Ibam, Boyinbode and Afolabi (2018), B2B is a typified e-commerce that deals with relationships between and among organizations. Ibikunle (2013) opines that B2B e-commerce models are evolving trend and as they evolve, attitude of customers and organizations’ needs have changed. In specifics, customers attitude towards B2B e-commerce models have raised concerns over certain B2B models, particularly trust, value-creation, loyalty, privacy, confidentiality, data security, accessibility, and authenticity of

B2B e-commerce model (Ashok, Ranjan & Pramod, 2016; White, Afolayan & Plant, 2014).

Existing body of knowledge has shown that while B2B models occupy a central role in the operations of businesses in both developed and developing nations, Nigeria seems to be lagging behind. Prior studies (Ayeni, 2015; Ahmed & Ogbu, 2015; Abiodun, 2013; Abdul-Azeez, 2012; Jagoda, 2010) have established that B2B e-commerce has not been fully realized in Nigeria. The inability to maximize the full potentials of B2B in Nigeria according to Ibam, *et al* (2018) is connected to a number of dynamics such as unhealthy relationships that underline commitment-trust, value-creation, power-dependence and loyalty. Notwithstanding these dynamics, *inter-alia*, B2B e-commerce models are faced with issues relating to privacy, authenticity, confidentiality, data security, accessibility and increased cybercrimes. Perhaps, this has made B2B e-commerce models more cumbersome for organizations to implement in Nigeria.

Alluding to the views of prior researchers, Lin *et.al* (2014); Ekanem and Abiade (2016) assert that the low usage of B2B e-commerce models in developing countries have resulted in a lag in organizational performance and economic growth of developing nations. Noteworthy is the fact that empirical studies have shown that B2B models contribute significantly to organizational performance; to the researchers knowledge, there is lack of empirical studies on B3B e-commerce model, particularly those of consumer goods companies in Nigeria capable of improving performance measures such as annual sales growth and customers retention. In the light of this, this paper assessed the relations between B2B models (using B2B dimensions of commitment-trust, value-creation and loyalty) and their effect on organizational performance (proxied by annual sales growth and customers' retention) of publicly quoted consumer goods companies in Nigeria. The remaining part of this paper is structured as follows: literature review and theoretical underpinning, research methods, results and discussions, conclusion and recommendations.

2. Literature Review and Theoretical Underpinning

2.1 Business-to-Business (B2B) E-commerce

Globally, there are numerous forms of e-commerce; however, this paper focused on one form of e-commerce – B2B. Abdul-Azeez (2012) describes B2B e-commerce as interaction between organizations with exclusion of customers.

Impliedly, B2B e-commerce focuses on trading with other organizations directly or via an intermediary. Sarbapriya (2011) opines that amidst other type of business transactions, B2B e-commerce provides service and support, inventory management, purchasing and procurement, and payment and supplier management facilities.

Again, most business transactions involving huge financial transaction are carried via B2B e-commerce distribution channels (Grefen, 2010); hence is considered as the greatest form of e-commerce interaction built on value-creation (Quaddus & Xu, 2010; Economist Intelligence Unit, 2009). More importantly, B2B e-commerce has been widely acknowledged as the most prevalent and effective form of e-commerce in areas of enhancing sale growth, profitability, and customers' retention (Ibam, *et al*, 2018; UNCTAD, 2016; Madan, 2005). In the view of Torbjorn (2013), B2B e-commerce aids direct customer interaction and reduces costs of transaction; thus B2B e-commerce model is considered vital to organizational growth.

The United Nations Conference on Trade and Development (UNCTAD, 2016) B2B e-commerce index ranking in Africa suggests that Nigeria is still lagging behind despite its place as the giant of Africa. Besides, B2B e-commerce models are of significant benefits to both sellers and buyers in area of goods and service delivery, and availability of products. Ekanem and Abiade (2016) support the viewpoints that B2B e-commerce enhances marginal profit on products and services, turnover yield, customers' retentions among others.

2.2 Empirical Studies

In Nigeria, there is dearth of empirical studies on B2B relationship and organizational performance; however, some related studies were reviewed in order to substantiate the dearth of empirical studies in this area. For instance, Ibikunle (2013) assessed the issues and challenges of B2B e-commerce in Nigeria using survey design. Data obtained were analyzed using simple percentages and results showed that the most critical issues of B2B e-commerce comprised of risk and security, infrastructural, education and awareness, trust and confidence, and finance and cost.

Similarly, Ahmed and Ogbu (2015) evaluated the problems and prospects of B2B e-commerce in Nigeria via descriptive method. Results suggest that most entities

in Nigeria are beginning to take advantages of the opportunities provided by B2B e-commerce; however, the study revealed that B2B e-commerce offers huge opportunities as it is considered as tangible and intangible assets to organizations.

In the same vein, Isa and Mohammed (2015) examined the technological adoption of B2B e-commerce on the performance of businesses in Nigeria via descriptive survey. A sample of 112 questionnaires were obtained and data analyzed using graphs. Findings revealed that B2B e-commerce significantly enhance the performance of businesses in Nigeria.

Ibam, *et al* (2018) ascertained the effect of investments in e-commerce infrastructure on economic development in Nigeria. The descriptive results indicated that investments in e-commerce infrastructure as well as having an appropriate legal framework guiding and protecting emerging e-commerce contributes to the development of Nigeria economy.

2.3 Theoretical Underpinning

In literature, there are numerous variants that can be used to describe and evaluate business relationship. Fundamental among the theoretical paradigms are the communicative-action, business-action and action-workflow paradigms; however, this paper adopts Business Action Paradigm (BAP) advocated by Goldkuhl (1998). BAP describes all-purpose business-action logic (Lind & Goldkuhl, 1997) and originates from the communicative-action paradigm (Searle, 1969; Habermas, 1984).

The view point of BAP is that there are specific business actions which at all times have to be performed like order delivery, contract and communicative actions, and delivery promise. In specifics, business actions between parties (business-to-business) have to be performed at all times via a process carried out in diverse phases. The diverse phases of BAP according to Goldkuhl (1996), takes the forms of business prerequisites, exposures and contact search, contact establishment and proposal, contractual, fulfilment and completion phases.

The BAP aids in understanding organizational performance as actions and interactions. Thus, BAP describes business relationship. The relevance of this paradigm to this study is that it explains the relationship between businesses where one business establishes prerequisites, searches and establishes contract, proposal,

fulfills and complete a transaction with another business via a labyrinth of computerized network. Prior studies (Grandon, Mykytyn & Altobello, 2011; Nasco, Grandón & Mykytyn, 2008; Lee, Kim, Rhee & Trimi, 2006) have used BAP as a basis for assessing relationship between B2B e-commerce model and organizational performance. The conceptual model is presented (fig. 1) in order to guide the empirical model:

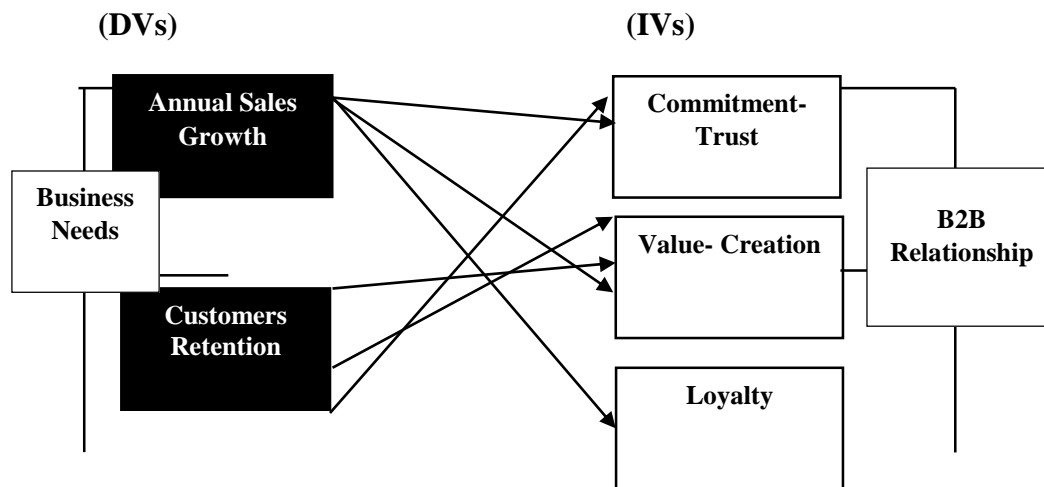


Fig. 1: B2B Model of the Study

Source: Conceptualized by the Researcher (2020)

The model (Figure 1) describes three (3) dimensions of B2B relationship (commitment-trust, value-creation and loyalty), which are in part similar to those used by prior studies while business needs, which can be characterized as increased annual sales growth and ability of organizational to retain customers were employed as proxies of organizational performance. The conceptual model describes the direct link between each of the dependent variables (annual sales growth and customers retention) to each components of B2B relationship; the goal of the model of which is to ascertain if a direct relationship exist between B2B relationship and organizational performance

3. Research Methods

This paper employs survey research design; the choice of design is based on the fact that it enables the researcher to obtain relevant data from a wide-range of

respondents on B2B e-commerce model. Nachmias and Nachmias (2009) assert that survey research design enables researchers gather relevant data in a limited timeframe. Supporting the views of Nachmias and Nachmias (2009), Creswell (2003) opines that survey research design is required when opinions of people form the major source of data for a study. The study population comprised of the entire employees of consumer goods companies publicly quoted on the Nigerian Stock Exchange. Given the large size of employees of consumer goods companies, a purposive sampling technique was employed in selecting two hundred and twelve (212) employees of selected consumer goods companies in South-South, Nigeria.

The research instrument was based on a structured questionnaire; employed as a basis for eliciting relevant data needed to assess the relationship between B2B e-commerce models and organizational performance of publicly quoted consumer goods companies in Nigeria. The questionnaire was designed on 4-point scale (strongly agree, agree, disagree and strongly disagree) and administered to two hundred and twelve (212) employees of selected consumer good companies. The questionnaire was assessed for reliability via pilot survey and correlated using Cronbach alpha reliability test to find the stability of research instrument. The Cronbach alpha reliability result yielded 0.81. The dependent variable is organizational performance (measured using annual sales growth and customers' retention) while independent variable is B2B e-commerce (proxied by commitment-trust, value-creation and loyalty).

The empirical B2B model was therefore based on B2B relationship dimensions of commitment-trust, value-creation and loyalty and performance measures of annual sales growth and customers' retention as depicted in the conceptual model of the study. In view of the fact that there are numerous dependent and independent variables, the multivariate regression estimation technique was used. The model of the study was adapted from Goldkuhl, (1998); Lin, *et al* (2014). The multivariate regression model is specified as:

$$orgperf = f(commt, valcre, loyty) \quad eq. 1$$

On the basis of equation 1, explicit form of the multivariate regression model is expressed in equation2:

$$orgperf = \alpha_0 + \beta_1 commt_i + \beta_2 valcre_i + \beta_3 loyty_i + \mu_{it} \quad eq.4$$

Where: *orgperf* = organizational performance (annual sales growth and customers retention); *commt* = commitment-trust; *valcre* = value creation; *loyty*= loyalty; α , β_1 - β_3 = regression coefficients; *i*= individual consumer goods companies; μ_{it} = error term.

Data obtained were analyzed on the basis of descriptive (simple percentages, mean and standard deviation) and inferential (multivariate regression) statistical techniques. The results of multivariate model were based on f-ratio, R-squared and probability of f-ratio and t-ratio. The STATA 13.0 was employed in the analysis of data descriptive and inferential statistics.

4. Results and Discussions

The data obtained in the study were presented in order of precedence: *first*, descriptive results were presented, which was accompanied by the results of inferential statistics as follows:

Table 1: Socio-demographic Variables of Respondents Representing B2B Model and Organizational Performance

Ranks	Variables	Respondents	Frequency N=212	Percent (%)
1	Gender	Male	140	60.03%
		Female	72	39.37%
		Total	212	100%
2	Marital Status	Single	57	26.89%
		Married	144	67.92%
		Others	11	5.19%
		Prefer Not to Say	-	-
		Total	212	100%
3	Age	18-37years	103	48.58%
		38-57years	84	39.62%
		58-77years	25	11.80%
		Total	212	100%
4	Educational Level	First Degree	144	67.92%
		Masters' Degree	56	26.42%
		Other	12	5.66%
		Total	212	100%

Source: Field Survey, 2020

Presented in Table 1 are the socio-demographic variables of two hundred and twelve (212) respondents who are employees of selected consumer goods companies publicly quoted on the Nigerian Stock Exchange. The result showed

that 140(60.02%) of the respondents are male while 720(39.37%) are female. On marital status of respondents, it was seen that 57 (26.89%) are single while 144(67.92%) married.

In addition, it was found that 103(48.58%) and 84(39.62%) of the respondents were within age brackets of 18-37years and 38-57years respectively while 25(11.80%) age brackets of 58-77years. On educational qualifications, it was revealed that 144(67.92%) and 56(26.42%) had First and Master Degree respectively while 12(5.66%) had other educational qualifications. The next phase is the analysis of questionnaire items on variants of B2B e-commerce models and organizational performance.

Table 2: Analysis of B2B e-commerce models and organizational performance variants

Variables	Obs.	Mean	Standard Dev.
Annual sales growth (<i>ansag</i>)	212	2.59	.87510
Customers retention (<i>cusrent</i>)	212	3.11	.89018
Commitment-trust (<i>commt</i>)	212	3.46	.91833
Value-creation (<i>valcre</i>)	212	3.69	.97110
Loyalty (<i>loyty</i>)	212	3.72	.97272

Source: Field Survey, 2020

Table 2 showed the questionnaire items on B2B e-commerce models variants (commitment-trust B2B relationship (*commt*); value-creation B2B relationship (*valcre*); & loyalty relationship (*loyty*) and organizational performance measures (annual sales growth (*ansag*) & customers' retention (*cusrent*)) of selected consumer goods companies publicly quoted on the NSE. The result revealed that B2B e-commerce models and organizational performance variants beat the mean benchmark of 2.4; this means that questionnaire items are good indicators for assessing the relations between B2B e-commerce model and organizational performance variants.

Table 3: Correlation Result of B2B e-commerce models and organizational performance variants

Variables	ansag	cusrent	commt	valcre	loyty
Ansag	1.000				
Cusrent	0.083	1.000			
Commt	0.028	0.036	1.000		
Valcre	0.183	0.015	0.061	1.000	
Loyty	0.153	0.028	0.014	0.011	1.000

Source: Field Survey, 2020

Table 3 shows correlation result of B2B e-commerce model and organizational performance. The correlation coefficients are positive, suggesting that B2B e-commerce variants moved in similar direction with organizational performance measures. However, the highest correlation coefficient (0.183) is between value-creation (*valcre*) and annual sales growth (*ansag*) but did not exceed the maximum benchmark of 0.8, indicating the non-existence of multi-collinearity among pairs of independent variables. Impliedly, the data are suitable for performing further analysis.

Table 4: Multivariate regression result of B2B e-commerce models and organizational performance variants

Equation	Obs.	Parms.	RMSE	R-Sq.	F	P
<i>Annag</i>	212	4	1.8206	0.900	36.14	0.0000
<i>Cusrent</i>	212	4	1.1404	0.916	34.98	0.0000
	Coef.	Std. Error	t	P>/t/	[95% Conf. Interval	
<i>annag</i>						
<i>commt</i>	.66546	.03113	10.8	0.000	.60139	.4638
<i>valcre</i>	.45191	.72132	7.31	0.000	.01964	.3226
<i>loyty</i>	.34908	.46720	3.47	0.000	.37989	1.034
<i>_cons</i>	1.4522	.71293	12.0	0.000		
<i>cusrent</i>						
<i>commt</i>	1.8264	.09571	9.09	0.000	1.6339	2.0188
<i>valcre</i>	.96029	.05971	9.15	0.000	.85946	1.0611
<i>loyty</i>	1.2766	.46759	12.7	0.000	.33653	2.2168
<i>_cons</i>	1.0718	.39266	7.81	0.000	.28232	1.8613

Source: Field Survey, 2020

Table 3 shows the multivariate regression result of B2B e-commerce model (*commt, valcre & loyty*) and organizational performance (*annag & cusrent*) variants. The R^2 0.90 (*annag*) and 0.92 (*cusrent*) revealed that the independent variable explained about 90% and 92% of the variations on the dependent variable. Hence, the models of B2B e-commerce provide good fit to the data. Furthermore, the f-values 36.14 and 34.98 with p-value of 0.000 are less than 0.05; this means that there is significant relationship between B2B e-commerce models and organizational performance of consumer goods companies Nigeria.

More so, B2B e-commerce, particularly commitment-trust, value-creation and loyalty affect organizational performance. The findings corroborate in part with the results of Ayeni (2015); Ahmed and Ogbu (2015); Abiodun (2013); Abdul-Azeez (2012); and Jagoda (2010) that established that B2B e-commerce contributed significantly to the performance of consumer goods companies in Nigeria. The implication of the finding is that in order for businesses to enhance performance, B2B e-commerce relationship must be heightened by a way of ensuring that B2B e-commerce creates value, loyalty and trust of customers. The results suggest policy recommendations for management of consumer goods companies in Nigeria.

5. Conclusion and Recommendations

Prior researches have established that B2B e-commerce in both developed and developing nations contribute to the performance of organizations; however, whether this is the case for consumer goods companies in Nigeria has not been well established in management literature. Consequently, this paper assessed B2B e-commerce model and organizational performance of consumer goods companies in Nigeria. The empirical B2B model was based on commitment-trust, value-creation and loyalty and performance metrics – annual sales growth and customer retention.

Using multivariate regression statistical tool, the findings showed that model of commitment-trust, value-creation and loyalty significantly affect organizational performance; however, still at the rudimentary phase in Nigeria. Given the empirical result, we recommend that consumer goods companies should enhance their business-to-business relationships, particularly in aspects of commitment-trust, value-creation and loyalty in order to enhance organizational performance

In fact, consumer goods companies should explore alternative business-to-business channels capable of enhancing data security, privacy and cybercrimes to further

enhance annual sales growth and customers' retention. This paper contributes to knowledge by reaffirming the position of prior studies and establishing that B2B e-commerce model are key drivers of the performance of organization. In addition, the study contributes to information management literature on relationship between B2B e-commerce model and organizational performance. This study is limited in terms of scope of coverage as the study was unable to cover all publicly quoted consumer goods companies on the Nigerian Stock Exchange as well as the use of other organizational performance proxies that are capable of being affected by B2B relationship' the limitation of the study thus calls for future research.

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