



E-Marketing and Organizational Performance: A Study of Five Manufacturing Companies in Oyo State, Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/SAJSSE/2018/v1i425815

Editor(s):

- (1) Fabiana Barbi, Centre for Environmental Studies, University of Campinas, Brazil.
(2) Gerald Aranoff, Professor, Department of Economics and Business Management, Ariel University, Israel.

Reviewers:

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(2) Vilani Sachitra, University of Sri Jayewardenepura, Sri Lanka.
(3) Dr. Fozia, Indraprastha Institute of Professional Studies (IIPS), India.
Complete Peer review History: <http://prh.sdiarticle3.com/review-history/25870>

Original Research Article

Received 31st January 2018

Accepted 29th July 2018

Published 13th August 2018

ABSTRACT

The information age holds a number of daunting challenges for modern organizations, and more specifically, modern marketers. These challenges have contributed towards a fast-changing and more complex environment for organizations. This study examines the effect of E-marketing on the performance of the selected business organizations in Oyo State, Nigeria. The purposive method was used to select five manufacturing companies operating in Oyo State while the simple random sampling technique was used to select fifty respondents for the study. Data collected through structured questionnaire was analysed with the aid of Mean and Regression Analysis. Results of the analysis show that e-marketing has a significant impact on organizational performance measured by effective decision making, customer satisfaction and sales volume. The study also confirms that unstable power supply, lack of government support, low level of education of the owners/managers of business organizations and Security of documents through e-commerce are major threats to the success of e-marketing adoption. The study concludes that the survival of business organizations, especially in this globally competitive environment, pivots on e-marketing. Subsequently, the study

recommends that the government should provide enabling environment for e-commerce to triumph in Nigeria. Also, management of Nigerian business organizations should establish e-marketing unit, administratively and financially separate and independent from marketing department, and give it a prominent place in the organizational structure, to be able to perform its functions without associating with the marketing management or other administrations in the company.

Keywords: E-Marketing; decision making; customer satisfaction; information technology; manufacturing; Nigeria.

1. INTRODUCTION

Electronic Marketing (E-Marketing) has been recognised by scholars and professionals in the field of marketing as a factor that plays an important role in raising the efficiency of economic performance to the companies in highly competitive markets, through providing the necessary information for the various administrative levels [1]. The emerging of e-marketing has made business organizations to be information oriented by using internet technologies including the use of multimedia, graphics, text with different languages to create catchy advertisements, forms, e-shop where the product can be viewed, promoted and sold. [2] observes that e-marketing has completely improved organizations performance in term of clientele, profitability, efficiency, effectiveness and it is considered as a competitive advantage. According to [3], e - marketing does not simply entail building or promoting a website, nor does it mean placing a banner advert on another website. It includes an advertisement (flash, text, graphics, audio or video), product display, product navigation, 3-D products view, basket selection, checkout and payment. E-marketing & internet marketing terms are used in the same sense. This form of marketing is equally applicable in most of the business models; such as e-commerce, publishing Services and affiliate marketing [4].

Studies also affirm that e-marketing has rapidly changed the way people do business globally. Clientele, business-to-consumer segment, business-to-business segment, sales through the web have increased geometrically over the last few years [5,6,7]. Marketing information systems enable marketing and sales managers to identify, interpret, and react to competitive signals and are key elements leading to efficient marketing strategies and sales promotion strategies [8].

The quest to exploit the e-marketing benefits has become a strong motivation for the utilisation of

e-marketing by business organizations, all over the world, Nigeria is not an exception. The utilization of e-marketing in Nigeria is still at infancy stage. [9] confirm that only large organisations and in particular, the financial institutions and the publishing houses started to adopt some form of e-marketing such as the use of e-mail and e-payment.

However, [10] argue that e-marketing holds a number of daunting challenges for modern organizations, and more specifically, modern marketers. These challenges have contributed towards a fast-changing and more complex environment for organizations. [11] also observe that many organizations, particularly in Nigeria, are moribund due to the wave of information technology. People have hesitations in using e-marketing due to security concerns, lack of physical approach towards product offered, and delay in product delivery along with price and quality concerns. Moreover, people are more resistant to change and not easily adaptable to newer technology. Generally, organizations worldwide experience the same kinds of information problems, which are more intensive in developing countries. They are hampered by asymmetry information and knowledge [12], which plays a key role in coping with change, and may be a possible reason for the poor performance in satisfying customer requirements.

The questions bordering the minds of researchers are; is there any significant relationship between e-marketing and organizational performance measured by effective decision making, sales volume and customer satisfaction? What are daunting challenges preventing business organizations from adopting e-marketing in Nigeria?

1.1 Research Objectives

The main objective of this study is to examine the effect of e-marketing on organization performance with particular reference to selected

manufacturing companies in Oyo state, Nigeria. The specific objectives are to;

- i. Determine the effect of e-marketing on effective decision making in manufacturing companies in Oyo State, Nigeria.
- ii. Examine the effect of e-marketing on sale volume of manufacturing companies in Oyo State, Nigeria.
- iii. Assess the effect of e-marketing on customer satisfaction in manufacturing companies in Oyo State, Nigeria.
- iv. To identify daunting factors preventing the adoption of e-marketing by manufacturing companies in Oyo State, Nigeria.

1.2 Research Hypotheses

The following hypotheses were formulated for the study in null form;

H₀₁: E-Marketing has no significant effect on effective decision making.

H₀₂: E-Marketing has no significant effect on sales volume in manufacturing companies.

H₀₃: E-Marketing has no significant effect on customer satisfaction in manufacturing companies.

2. REVIEW OF RELATED LITERATURE

2.1 Concept of E-Marketing

The concept of e-marketing has no formal links with any specific technology and is regarded by early exponents to be a conceptual system, in which the flow of information is the essential element. Technology plays a secondary role. However, Information Technology (IT) has developed so rapidly and has become so prevalent in organizations, that virtually all decisions involve some interactions with technology. Also, the marketing function promises to benefit greatly through the use of IT [13]. Based on the above reasons, it is impossible to conduct any study of e-marketing without taking into account the role of technology. The focus of the e-marketing is information, often 'creating' data by various collection methods such as marketing research and market intelligence programs. It provides the marketing decision-maker with data in general and summarized format. The burden is on the decision-maker to select the useful information. [14] describe this situation as an overload of

data, but with a lack of meaningful information. The e-marketing developed after the enthusiastic reception of management information systems [6]. [5] define e-marketing as an interacting structure of people, equipment and procedures to gather sort, analyze, evaluate and distribute, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation, and control.

In order to gain a deeper understanding of the functioning of an e-marketing, it is useful to understand the components of marketing information. [15] and [16] categorize some of the components of marketing information as below.

- Marketing research, which refers to the systematic design, collection analysis, and reporting of data and findings relevant to a specific marketing situation facing an organization. It is thus reactive and *ad hoc* by nature.
- Market intelligence, the procedures whereby everyday information is obtained. It is more proactive in nature.
- Internal reports, which consist of internal information such as sales records and reports and financial data.
- Marketing models or information analysis, which are needed as a cognitive framework in which to analyze, interpret and make sense out of data.

A term that seems to be used often in organizations as representative of the full spectrum of marketing information is 'market intelligence' [17]. That term will, therefore, be used in this thesis interchangeably with 'marketing information'.

3. ORGANIZATIONAL PERFORMANCE

According to [16], organizational performance is defined as "a vital sign of the organization, showing how well activities within a processor the outputs of a process achieve a specific goal". It is also defined as "a process of assessing progress towards achieving pre-determined goals, including information on the efficiency by which resources are transformed into goods and services, the quality of these outputs and outcomes, and the effectiveness of organizational objectives" [18]. Organization's performance is made visible through the activities it conducts to achieve its mission. Outputs and their effects are the most

observable aspects of an organization's performance [19].

[20], on assessing organizational performance stated that most organizations view their performance in terms of "effectiveness" in achieving their mission, purpose or goals. Most organizations, for example, would tend to link the larger notion of organizational performance to the results of their particular programs to improve the lives of a target group). At the same time, a majority of organizations also see their performance in terms of their "efficiency" in deploying resources. This relates to the optimal use of resources to obtain the results desired.

4. EMPIRICAL REVIEW

Previous studies recognised that e-marketing is an important input into the organizational performance in terms of effective decision-making, increased in sales and productivity, and reduction in marketing costs and order turnaround. For example, [21] regard the management of marketing information as a strategic priority of the enterprise. [22] stress the importance of information in marketing by stating that the management of marketing information is crucial to the success of the organization and that it should be integrated with the strategic planning process. [12] also finds out that marketing information system is a strong factor that influences the satisfaction of Customers and staff of microfinance institution in Nairobi, Kenya. [23] also agree that marketing information system improved decision making for marketing managers in different organizations in Iran. In the same vein, [24] also affirms that there is a statistically significant relationship between each of the following marketing information system components: (internal records, marketing research, and marketing intelligence) and decision-making. In the study of [25], he finds out that MKIS is not only impacted the marketing activities at organizations but influences the overall organizational activities in United State of America.

[26] explore the innovative marketing information system in the tourism industry of Pakistan. The study is very beneficial for hotels, fast food restaurants, tourist resorts, picnic spots and other areas of the sector to measure to what extent innovative MKIS is efficient and effective. The study reveals that MKIS has a positive impact on customer satisfaction, sales volume and decision making in Pakistan. [27] also

examines the impact of marketing information systems on organizational performance. The study is based on using the statistical descriptive approach where the data collected through the primary and secondary sources. 130 questionnaires were distributed but 100 questionnaires were available for analysis. Means & standard deviation, One sample T-test, and simple correlation were used to analyse the data. Results show that there is a statistically significant relationship between marketing information systems, sales growth and employers' efficiency in Saudi Arabia.

5. METHODOLOGY

5.1 Research Design

Explanatory design was used for this study. Purposive method was used to select five manufacturing companies (Bento Pharmaceutical Company, Ibadan; Yale Nigeria Limited; Bond Pharmaceutical Company, Awe – Oyo; Sweetco Nigeria Limited, Ibadan and Black Horse Plastic Company, Ibadan) operating in Oyo State. The choice of these manufacturing companies is based on the fact that they are all located in Oyo State and it is expected to have uniform promotional strategies. Simple random sampling technique was used to select fifty (50) staffers from the marketing departments of the selected companies as a sample size for the study.

5.2 Data Collection Instruments

The data collection instruments for the study comprised of marketing information system questionnaire, decision-making questionnaire, customer satisfaction questionnaire and sales volume questionnaire which was developed and validated by the researchers. It is a likert type scale anchored on a seven point likert scale. Its response format ranges from "Strongly Disagree" (1) to "Strongly Agree" (5). The scale was subjected to item analysis in order to ensure it is valid and reliable. It yielded a reliability alpha coefficient of 0.79, 0.87 and 0.76 respectively which is consistent with [28] Nunnally and Bernstein (1994), who suggests that a reliability alpha of 0.70 is appropriate to measure any psychological construct.

5.3 Method of Data Analysis

The research data were statistically analyzed by means of the Statistical Package for Social

Science (SPSS). Data analysis was performed with the aid of mean and regression analysis.

Sale Volume= $\beta_0 + \beta_1 \text{ e-marketing}_i + \mu_i$
 β_0 = intercept, β_1 = Regression coefficient and μ_i = error term

5.4 Model Specification and Analytical Technique

To evaluate the impact of e-marketing on organization performance; mathematically, the model is expressed as follows:

Organization Performance = f (e-marketing) (i)

Organization performance is measured by Decision-Making Questionnaire (DMQ), Customer Satisfaction Questionnaire (CSQ) and Sales Volume Questionnaire (SVQ)

Mathematically, therefore, the model is expressed as follows:

Model I: Decision-Making = f(e-marketing) ----(iii)

Decision Making= $\beta_0 + \beta_1 \text{ e-marketing}_i + \mu_i$

Model II: Customer Satisfaction = f (e-marketing) ----- (iv)

Customer Satisfaction = $\beta_0 + \beta_1 \text{ e-marketing}_i + \mu_i$

Model III: Sales Volume = (e-marketing) ----- (v)

6. RESULTS AND DISCUSSION

The result in Table 1 shows that e-marketing has a positive and significant impact on effective decision making. Additionally, E-marketing independently contributes about 35.3% to the effective decision making. The estimated Durbin - Watson value of 1.822 clears any doubts as to the existence of positive first-order serial correlation in the estimated model. The model was constructed to test the null hypothesis that E-marketing has no significant impact on effective decision making in business organizations, Oyo State, Nigeria. E-marketing has an impact on effective decision making. The F-statistic of 110.635 indicates that the overall regression plane is statistically significant. Therefore, null hypothesis is rejected while the alternative hypothesis is accepted.

The implication of this finding is that effective decision making emanates from e-marketing. This result means that the implementation of e-marketing will lead to effective decision making.

Table 1. Effect of E-marketing on effective decision making

Model	R	R square	Adjusted R square	Std. error of the estimate		
1	.594 ^a	.353	.350	.51232		
Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	29.039	1	29.039	110.635	.000 ^b
	Residual	53.283	48	.262		
	Total	82.322	49			
Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. error	Beta		
1	(Constant)	1.694	.258		6.571	.000
	E-marketing	.598	.057	.594	10.518	.000

a. Dependent Variable: Decision making

Table 2. Effect of E-marketing on customer satisfaction

Model	R	R square	Adjusted R square	Std. error of the estimate		
1	.118 ^a	.014	.009	.57008		
Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	.924	1	.924	2.843	.049 ^b
	Residual	65.974	48	.325		
	Total	66.898	49			

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	4.325	.088		48.911	.000
E-marketing	.046	.027	.118	1.686	.049

a. Dependent Variable: Customer Satisfaction

The result in Table 2 shows that E-marketing has positive and significant influence on customer satisfaction. Furthermore, E-marketing independently contributes about 14% to the customer satisfaction. The estimated Durbin - Watson value of 2.010 clears any doubts as to the existence of positive first-order serial correlation in the estimated model. The model was constructed to test the null hypothesis that E-marketing has no significant influence on customer satisfaction. E-marketing has significant influence on customer satisfaction. The F-statistic of 2.843 indicates that the overall regression plane is statistically significant. Therefore, null hypothesis is rejected while the alternative hypothesis is accepted.

This result implies that e-marketing emerged as a determinant of customer satisfaction. The study is consistent with previous researchers [27,23, 26,12,24] that that marketing information system does not only impact the marketing activities at

the organization level but also influence the overall organizational activities.

The result in Table 3 shows that E-marketing has a positive and significant effect on sales volume. Additionally, E-marketing independently contributes about 35% to the sales volume. The estimated Durbin - Watson value of 2.191 clears any doubts as to the existence of positive first-order serial correlation in the estimated model. The model was constructed to test the null hypothesis that E-marketing has no significant effect on sales volume in business organizations in Oyo State, Nigeria. E-marketing has significant impact on sales volume. The F-statistic of 7.262 indicates that the overall regression plane is statistically significant. Therefore, null hypothesis is rejected while the alternative hypothesis is accepted. This result indicates that innovative marketing information system in business organizations will have a positive impact on sales volume.

Table 3. Effect of E-marketing on sales volume

Model	R	R square	Adjusted R square	Std. error of the estimate		
1	.186 ^a	.035	.030	.61294		
Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	76.267	1	2.728	7.262	.008 ^b
	Residual	2.728	48	.376		
	Total	78.995	49			
Model	Unstandardized coefficients		Standardized coefficients	T	Sig.	
	B	Std. error	Beta			
1	(Constant)	4.013	.148		27.122	.000
	E-marketing	.097	.036	.186	2.695	.008

a. Dependent Variable: Job Performance

Table 4. Mean response scores

S/N	Statement	Obs	Mean	Remark
1.	The telecommunication facilities are inadequate for successful use of E- marketing by business organizations	50	4.04	Accepted
2.	Nigeria does not have the stable power supply to effectively support E-commerce for marketing by business organizations.	50	4.67	Accepted
3.	The cost of acquiring E-commerce infrastructure is very high	50	4.09	Accepted
4.	Lack of government support affects the full utilisation of E-commerce.	50	4.20	Accepted

S/N	Statement	Obs	Mean	Remark
5.	Security of documents through e-commerce is a threat to the success of e-commerce utilisation.	50	4.29	Accepted
6	The cost of training personnel to handle E-commerce is very high	50	4.11	Accepted
7.	The low level of education of the owners/managers of business organizations affect the use of e-commerce for marketing	50	4.21	Accepted
8.	There is high level of cyber-crime to make E-marketing successful	50	4.12	Accepted
9.	Nigerian market is yet less informed about online marketing to make e-commerce succeed for the business organizations	50	4.17	Accepted
Grand Mean			4.2	

Source; Data Analysis, 2018

The implication of this study is that the implementation of e-marketing in Nigerian business organizations will assist our manufacturing companies from distressed syndrome currently facing them and it will make them survive in a global competitive environment.

6.1 Mean Response Score on Daunting Challenges Preventing Business Organizations from Adopting e-Marketing

From the Table 4, the grand mean of 4.2 which is above the criterion mean of 3. Criterion mean of 3 was generated by adding the total assigned values of the responses and dividing by the total number of responses ($5+4 + 3 + 2 + 1 = 15/5 = 3$). Thus any mean score up to 3 and above was interpreted as acceptable by respondents while 2.99 and below is adjudged rejected by the respondents. This shows that respondents agreed that the above-listed items are the daunting challenges preventing business organizations from adopting e-marketing in Oyo State, Nigeria. Furthermore, results indicate that unstable power supply to effectively support e-commerce, lack of security of documents through e-commerce, low level of education of the owners/managers of business organizations and lack of government support are threats to the success of e-marketing utilisation in Nigeria.

The result is similar to the findings of the [24], [22] and [11] that lack of infrastructural facilities and lack of support of management are the major obstacles to e-marketing adoption in developing countries. In another study, [3] also argue that dubious attitude of people towards e-marketing of product and services, is one of the major

obstacles of e-marketing adoption by business organizations.

7. CONCLUSION

The study establishes that e-marketing has a significant effect on organizational performance measured by effective decision making, customer satisfaction and sales volume. The study also confirms that unstable power supply, lack of government support, low level of education of the owners/managers of business organizations and Security of documents through e-commerce are major threats to the success of e-marketing adoption. In conclusion, e-marketing is a very important means for effective decision making, sales growth and customer satisfaction. Most of the Nigerian business organizations have to develop their marketing information applications in place to support online transactions. This can help in improving the situation in the future.

8. RECOMMENDATIONS

Based on the conclusion, the study, therefore, recommends that government should provide an enabling environment for e-commerce to triumph in Nigeria. Also, management of Nigerian business organizations must work to make the e-marketing unit, administratively and financially separate and independent from marketing department, and give it a prominent place in the organizational structure, to be able to perform its functions without associating with the marketing management or other administrations in the company. Additionally, management of Nigerian business organizations must increase their interests in e-marketing through the provision of all essential supplies, and the introduction of modern methods and techniques in data

processing, which increase the speed of rational decision-making.

COMPETING INTERESTS

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by the personal efforts of the authors.

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Peer-review history:

*The peer review history for this paper can be accessed here:
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