

**E-COMMERCE ADOPTION AND ENTREPRENEURIAL SMEs IN RIVERS STATE**

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**ABSTRACT**

*The main objective of this research is to increase academic understanding as well as provide managerial implications in relation to identifying and examining the factors that determine E-commerce adoption for marketing purposes by small and medium scale enterprises (SMEs) in Rivers State, Nigeria. The methodology is empiricist/positivist and the design is survey. In investigating the relative importance of the factors that determine the different levels of online adoption in the context of a developing country, existing theories and models provided patterns which the study followed. The contributions of this research is a synthesis of Resource-based View of the firm (RBV) with Roger's innovation adoption model and others to produce a revised conceptualization for the adoption of innovations which is empirically tested for developing country SMEs like Nigeria. It provides an empirical contribution by studying the SMEs as an example of goods and services marketing. The major findings of this research are that management factors are important for the initial adoption decision by firms whereas marketing capabilities are important for more sophisticated adoption. This suggests that different factors affect the different levels of adoption. The implications for marketing firms are that first; innovation attributes are not the whole story when studying firms' adoption of the web, firm resources also affect adoption decision. Secondly, different factors affect different levels of adoption thus when studying innovation adoption by firms, it is important to consider the adoption process as a continuous one that consists of different levels rather than a dichotomous process of adopt (online) versus non-adopt (offline).*

**Key Words: E-commerce, Adoption, SMEs, Online transaction, Entrepreneurial.**

**INTRODUCTION**

E-commerce refers to business transaction in which the parties involved interact electronically to exchange information and purchase goods and services. This form of business transaction encompasses buying and selling over the Internet through computer mediated network. It further encompasses wide range of products and services. Online marketing entails the use of electronic communication and digital information processing technology to create, transform, and redefine relationships for value creation between business organizations and as well as individuals. Depending on the type of technology involved and the extent of internet integration into business processes, it may constitute part or the entire business processes, (Thong, J. 2001; Singh, et al., 2007)

The internet is the fastest growing technology in the world today; taking 7 years to reach 25% market-share from its conception and adoption, when compared with Telephone that took 35years, and Television which took 26years, (Singh, 2002). Despite the growing consciousness and enthusiasm for electronic marketing, only a few SMEs in Rivers State are exploiting its substantial benefits. Moreover, there is scanty evidence of long-term strategic development of e-marketing technologies within SMEs that are already employing the systems especially among developing countries. In Imo State of Nigeria online marketing diffusion is rather too slow but steady.

E-commerce adoption has proven to be a potential approach for enhancing the effectiveness of marketing practices. These advantages could boost operational efficiency of Rivers State small to medium size enterprises (SMEs) by widening their marketing network. Owing to the increasing

raise of online transactions, this paper discusses and assesses the factors that may affect the adoption of this phenomenon. Online marketing capability in addition to traditional marketing were assessed to see factor that affect adoption base on Resource Base View theory and others by qualifying their managerial potentials as a business enabling technology and further recommends potential adoption techniques. Furthermore, online, web, internet, and electronic marketing will be used interchangeably to mean marketing through the electronic data-interchange to identify needs and provide goods and services for consumers benefits, (Singh, et al., 2007; El-Gohary, et al., 2008).

Third, there is a shortage of research on the factors affecting the levels of web adoption by SMEs. Most of these studies focused on the barriers that small companies can face in their adoption of the web as well as the benefits they can realize. Only a limited number of researchers have attempted to analyze the factors that lead these small companies to either adopt or not adopt the web and the levels of web adoption by these companies. Fourth, small firms are important to the global economy and a large number of companies worldwide fall under SMEs and thus it is worth studying whether the same factors that affect web adoption by large companies also affect SMEs' adoption. Finally, SMEs represent the largest group within the Nigeria economy and are recognized as different in terms of their characteristics from larger ones, so it would be helpful to study them group separately, (Scupola, 2003; Singh, et al. 2007).

In the Rivers State, most SMEs operators are not aware of the various benefits inherent in online marketing; hence it becomes pertinent to find out from them why their attraction to online marketing adoption is very slow; and then highlight the research findings to promote more participation. It is thus worth noting that these enterprises fall under the heading of SMEs. Size here is defined in terms of number of employees, from 11 to 100 employees for small scale, 101 to 200 employees for medium scale and also the capital layout by the National Council for Industries (2001).

Marketing through the internet is a current trend worldwide because of its' low cost, convenience, extensive reach of customers, 24 hours and 7 days a week transactions opportunity. To be left-out of this trend is to allow a business to slide to "dog" or "decline" in BCG matrix or PLC analysis, (Kotler, 1997). The adoption rate in Rivers State is a concern when compared to other states in Nigeria. None adoption may be as a result of some factors yet unknown. Thus whatever it takes to encourage understanding and adoption is the aim of this study in highlighting the findings for relevant application in the marketplace, (Singh, et al., 2007; Tan, et al., 2008; OECD, 2002, 2007).

The major objective of this research is to identify and examine the factors that driver online marketing adoption by SMEs in Rivers State. The research's main aim is to provide empirical contributions through selecting some SMEs as the field of application and study their levels of adoption from a business to business perspective. The other specific objectives are:

- i. to understand the extent to which these factors can attract the adoption of online marketing by small and medium scale enterprises in Rivers State.
- ii. to develop a conceptual framework for online marketing adoption in the business to business context by integrating Roger's Model of Innovation adoption, Resource-Based View of the firm, and others in order to identify key antecedents of electronic marketing adoption.
- iii. to statistically test those identified determinants of online marketing adoption by SMEs in Rivers State, for the purpose of understanding the extent of their influence in

improving marketing practices and the closure of knowledge gap in e-marketing in this part of the developing world.

The significance of this study is that it will assist in closing the gaps which exists in theory and practice, for scholars, practitioners and government to take action. For instance to facilitate e-marketing growth in Nigeria, there is need to improve e-marketing infrastructure. To achieve this, policy intervention/regulation is necessary to overrule:

- i. High cost of Internet access which includes cost of connection service, subscription fees, and charges for websites with sufficient bandwidth.
- ii. Content restriction by national security under public policy which affects information services such as media and entertainment.
- iii. Insecurity in network.
- iv. Development of transportation infrastructure to avoid slow and uncertain delivery of goods and services.
- v. Inadequate professional information technology workforce.

The geographical scope of this study is Rivers State SMEs that operate online. Their population is 3,433 SMEs ([www.onlinemarketinglisting.com.ng](http://www.onlinemarketinglisting.com.ng)) accessed on 10/11/2023 The content scope is the SMEs as defined in terms of the number of employees of a particular firm, ranging from: 11 to 100 employees for small scale and 101 to 200 employees for medium scale, (NCI-13, 2001). Micro and Large enterprises (Micro: 1-10; Large: 201-above), are not covered by this study, but can benefit from the results. Analytical scope is the unit of analysis consisting responses for data analysis. The table below depicts further clarification:

**Table 1.1:**  
**Construct Measuring the Scale/Levels of Enterprises**

Scale of Enterprises	Capital layout	Staff Strength
Micro	₦0 - ₦1.5m	1 – 10
Small	₦1.5m – ₦50m	11 - 100
Medium	₦50m – ₦200m	101 - 200
Large	₦200m – and above	201 – above

**Source: National Council on Industry (NCI-13, 2001)**

Web marketing, internet marketing, e-marketing, digital marketing and online marketing in this study convey the same understanding as carrying out marketing activities through the internet. The sharing of marketing information, maintaining marketing relationship, and conducting of marketing programmes by means of digital technology and communication that seeks to create, retain and maintain customers and consumers (Levinson & Rubin, 1996; EL-Gohary, et al., 2008). Other connotations are beyond this investigation.

## REVIEW OF EXTANT RELATED LITERATURE

### Conceptual Framework

The aim of this section is to contribute to the second research objective by outlining the key literature on internet and particularly web adoption and identifying the gaps within the established literature. In doing this, the section provides an overview on the topic of this research and sets the scene for the following section. The section begins by defining Internet marketing as a concept and discussing the different opinions that exist in literature on the impact of the Internet on the marketing function. Following that the unique characteristics of web marketing will be discussed. The chapter will then provide a detailed discussion of the four key themes in the existing literature on Internet marketing and in doing so identify the research gaps that exist.

The advent of the Internet and specifically the web has prompted much attention and research from both academics and practitioners in the past decade. After the emergence of the Internet

many studies were concerned with how it will affect the nature and future of the marketing discipline and activities. A lot of the early studies proposed that the internet will lead to a “marketing revolution” (Rayport & Sviokla, 1994; Hoffman & Novak, 1997; Aldridge, et al, 1997; Hamel, 1998; Kenny & Marshall, 2000).

Many authors thus attempted to study the impact of the internet on various aspects of marketing. Various opinions exist concerning the expected impact of the internet on firms in general and on the marketing function in particular. Porter (2001) argues that implementing internet technology by firms is not a matter of an option but is vital if firms want to remain competitive. He explains that companies should start thinking about how to complement their traditional marketing strategies with internet technology in order to gain competitive advantage in the electronic marketplace.

Similarly, Brodie, et al. (2007) explain that the success of e-marketing largely comes from the support and enhancement of existing marketing practices and thus both should be integrated together. Additionally, while Day and Bens (2005) view the transformational impact of the Internet on marketing as being modest, they explain that those firms that can integrate and align the Internet with their overall strategy can create unique and lasting competitive advantage. Although early studies proposed a revolution in marketing as a result of the Internet, the dominant thinking now is that the Internet should be an integral part of the marketing practice.

### **Conceptualization of Electronic Commerce**

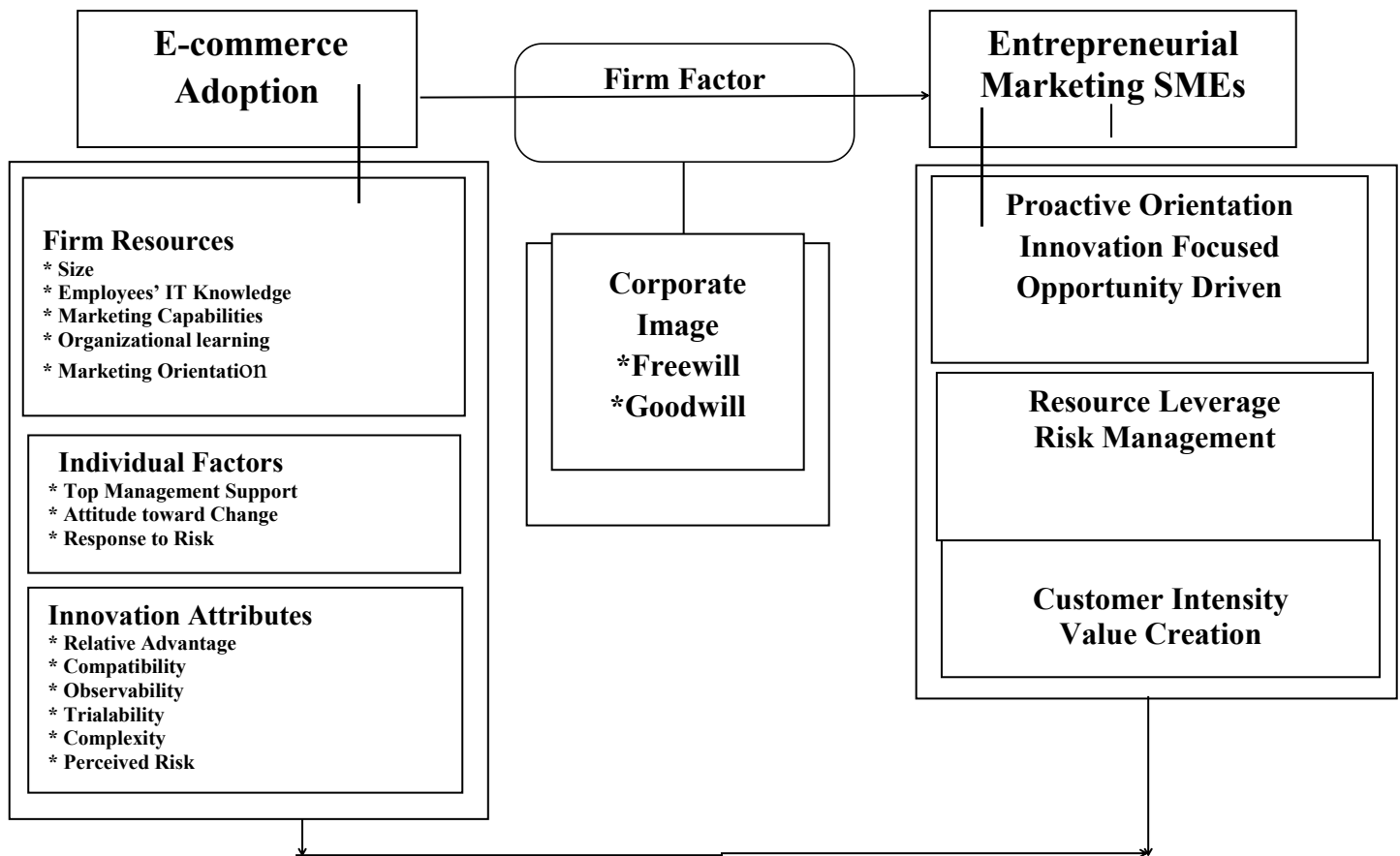
Internet marketing, online marketing, electronic marketing, web marketing, or digital marketing are all different names that have been used interchangeably in the literature to refer to marketing that occurs via the hyper media of the Internet. These terms in this study convey the same understanding as carrying out marketing activities through the internet. The sharing of marketing information, maintaining marketing relationship, and conducting of marketing programmes by means of digital technology and communication that seeks to create, retain and maintain customers and consumers (Levinson & Rubin, 1996; EL-Gohary, et al., 2008). Some researchers viewed the internet as a new channel of distribution that affects the marketing function mainly in the area of transferring goods and services (Doherty, Chadwick & Hart, 2003).

Doherty, Chadwick and Hart, (2003), defined electronic marketing as “the transfer of goods and services from sellers to buyers that includes one or more electronic methods or media”. Other researchers argued that the Internet is a medium and a market in itself and that it affects marketing in a much broader context than distribution.

Barwise and Farley (2005) defined Internet marketing to include “internet advertising and sponsorship, marketing websites and extranets, e-mail marketing, online promotions and incentives and new media.” They thus focused on the interactive nature of the Internet in marketing communication and promotion. Stewart and Pavlou, (2002) added that the internet is a new marketing channel for interactive marketing that allows new forms of communication with the customer and affects elements of the marketing mix such as distribution, product design and pricing.

The figure (2.1) below illustrates the proposed conceptual model and the following section discusses each of these factors individually and presents the hypotheses of the research. These variables are present in the reviewed literature and are used to frame the study as the core determinants of any level of adoption a firm wants to undertake. The idea of conceptualization model is to create an instant picture of the constructs influencing the study.

**Figure: 2.1:**  
**Conceptual Framework: E-COMMERCE ADOPTION AND ENTREPRENEURIAL SMEs**  
**IN RIVERS STATES**



(Source: El-Gohary, et al. 2008; Singh, et al. 2007; Scupola, 2003)

## Theoretical Reviews

### The Resource-Based View (RBV) of the Firm

The resource-based view (RBV) of the firm is a theory of competitive advantage that emphasizes the link between a firm's internal resources, strategy, behaviour and performance (Wright et al., 1994). It is worth noting that RBV is of relevance to the innovation research because innovation adoption is potentially an element of competitive success. RBV takes an "inside-out" or firm specific perspective by focusing on the internal resources of the firm as the major determinant of its competitive success (Barney, 1991).

Firm resources have been defined by Wernerfelt (1984) as tangible and intangible assets that are semi permanently tied to the firm. Barney (1991) expanded this definition to include: "*all assets, capabilities, organizational processes, firm attributes, information, knowledge, and the likes, controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness.*"

Two assumptions are basic to the RBV, these are: (i.) resources are heterogeneous across firms and (ii.) these resources may not be perfectly mobile across firms, or in other words, they cannot be transferred from a firm to another without cost (Barney, 1991). To this end, a firm's resources must have four features that are: (a) must be valuable in that it helps the firm exploit opportunities and/or reduce threats, (b) it must be rare in comparison to the firm's competition, (c) it must be hard to imitate, and (d) it must not be easily substitutable. These characteristics of a

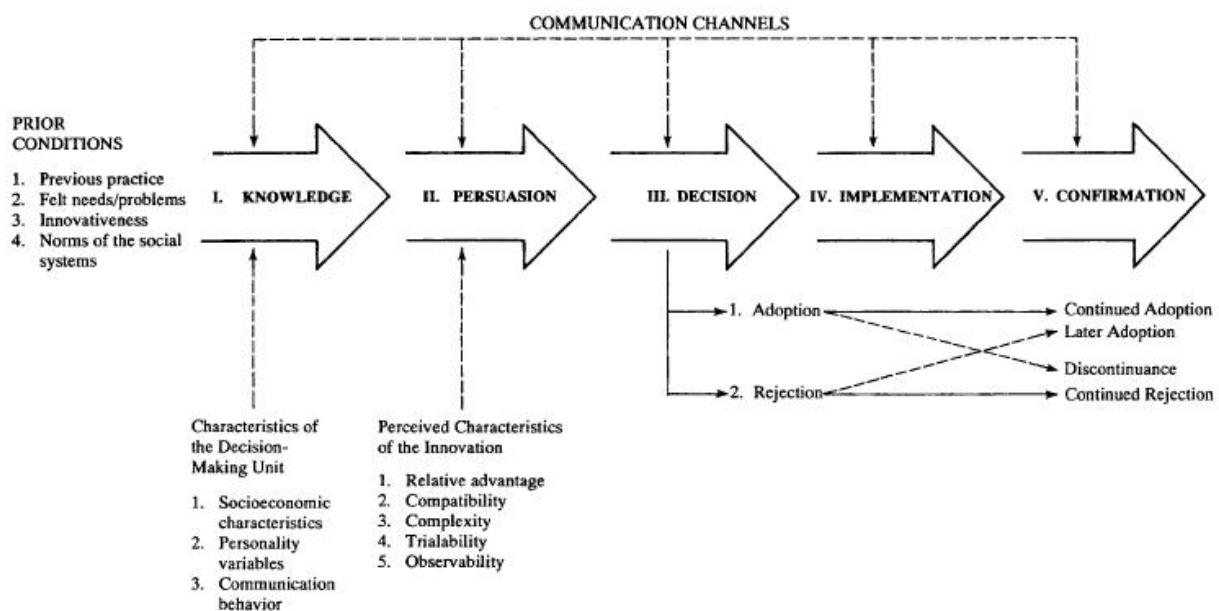
firm's resources provide an indication of how heterogeneous and immobile a firm's resources are and thus how these resources can be used by the firm to generate sustained competitive advantage (Barney, 1991).

Lockett and Thompson, (2001) posit that according to the RBV, the firm's heterogeneity implies that an innovation is cheaper and/or more attractive to some firms than others. It may also imply that some firms have greater capabilities than others in relation to the adoption of innovations. That is to say that some firms appear to possess resources that give them comparative advantage in developing new processes or products.

### Rogers's Theory of Innovation Adoption

As one of the dominant theories on innovation adoption, Rogers's (2003) model of innovation adoption can be applied successfully to a variety of innovations. Originally serving the social science area, and in particular rural innovation adoption, and directed toward the individual consumer, it has evolved throughout different decades to encompass technological innovations and to serve both consumer and business adoption units. The model is based on the innovation-decision process which is "the process through which an individual (or other decision-making unit) passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision" (Rogers, 2003). Thus implicitly this model views adoption as a staged process. Figure 2.2 illustrates the model.

**Figure 2.2:**  
**Stages in the Innovation Decision Process by Rogers.**



Source: Rogers (2003)

Each stage of the process consists of a series of different actions and decisions taken over time (Rogers, 2003). The following is a brief description of each stage. 1. During the knowledge stage the decision-making unit gets exposed to the innovation's existence and starts to understand how it operates (Rogers, 2003). Factors that affect this stage include previous practice, needs and problems, innovativeness of the individual and norms of the social system. At the persuasion stage the "individual becomes more psychologically involved with the innovation" and thus starts to actively seek information about the new idea (Rogers, 2003 p.175). Perceived characteristics of the innovation: relative advantage, compatibility, complexity, trialability and observability are

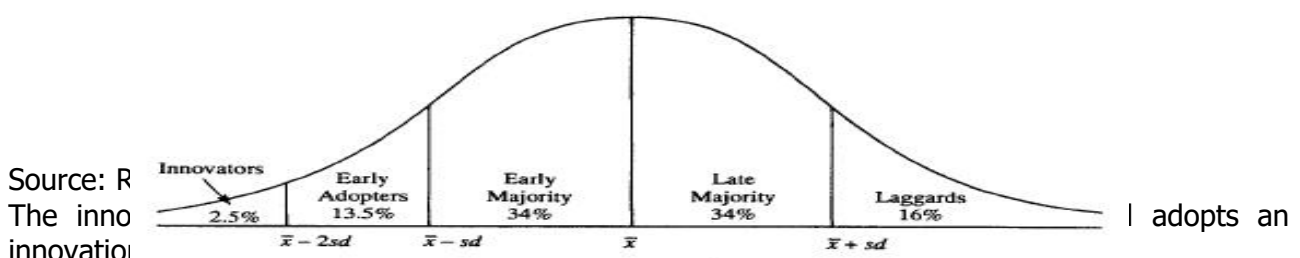
important in helping the individual form a favourable or unfavourable attitude toward the innovation. All but complexity are positively related to the adoption of an innovation by an individual. The perceived attributes of an innovation provide an important explanation of the rate of adoption of the innovation (Rogers, 2003).

In addition to these five perceived attributes, other factors such as: the type of innovation decision, the nature of communication channels diffusing the innovation, the nature of the social system in which the innovation exists, and the extent of change agents' promotional efforts in diffusing the innovation, also influence the rate of adoption of an innovation (Rogers, 2003). It is worth mentioning, however, that among the five different factors that affect an innovation's rate of adoption, the five perceived attributes of an innovation have been most extensively studied and have been found to explain about half of the variance in innovations' rates of adoption (Rogers, 2003). Moving to the decision stage, the individual decides whether to adopt or reject the innovation. According to Rogers (2003) trying the innovation on a small scale is an important part of the decision stage.

### Rogers's Model of Adoption Rates

In addition to the model of innovation decision process, Rogers provides a model of adoption rates based on the premise that not all individuals adopt an innovation at the same time and a way to categorize adopters. The criterion used for this categorization is "innovativeness" which he defines as "the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a social system" (Rogers, 2003). Rogers classifies individuals into five categories that are: innovators, early adopters, early majority, late majority and laggards (Rogers, 2003). Figure 2.3 illustrates the adoption rates for these categories.

**Fig 2.3:**  
**Categorization of Adopters Based on Innovativeness by Rogers.**



### Empirical Reviews

#### E-Commerce Adoption by SMEs

As a rough indication, a simple search of the main journal databases found that around 530 consumer innovation adoption articles were published from 1998 through 2008 whereas around 320 firms' innovation adoption articles were published during the same period. Additionally, firms' Internet adoption research has focused to a large extent on large organizations. Internet adoption in many SMEs is manifested in websites which are viewed to provide the most value within an inherently marketing driven context (Marcolin et al., 2005; Martin & Matlay, 2003; Jones, et al., 2003).

While there are plenty of research that studied IT including the web and SMEs, there is limited research on adopting the online for marketing purposes. A few number of studies focused on the adoption of the online for marketing purposes in a small business context and these have been in developed countries (Houghton & Winklhofer, 2002; Maguire et al., 2007). In acknowledging the importance of studying the technology which has been the focus of previous studies, it is also important to focus on the use of this technology, i.e. the marketing utilization of the internet. It is

important to study how small firms are using the internet to interact with their customers. SMEs have always been recognized as an important segment of the economy and will remain the backbone of economic development in many countries throughout the world (Chong & Lin, 2008).

Based on an empirical study, Hausman (2005) argues that small firms have different characteristic features than larger ones and thus it is important to study their innovative behaviour separately. Among these characteristics are less bureaucracy, more flexible structure, closeness to customers and therefore better identification of their unmet needs, more limited resources and larger influence of the owner or manager whose own innovativeness maybe the main determinant of the firm's innovativeness (Olson et al., 1995; Sivades & Dwyer, 2000; Thong, 2001; Verhees & Meulenber, 2004). Additionally, SMEs have centralized decision making, limited long-term planning, and there is more dependence on external expertise and services for information systems (Premkumar, 2003). Peters and Buhalis (2004) indicate that small businesses are not miniature versions of larger ones, but they have different structures, priorities and strategic objectives.

Dutta and Evrard (1999) found that SMEs were using the internet for a number of different activities including improved communication, access to information, marketing and transactions with customers and suppliers. Their findings have been reinforced by other empirical studies of SME adoption of the Internet, such as those by Daniel et al. (2002).

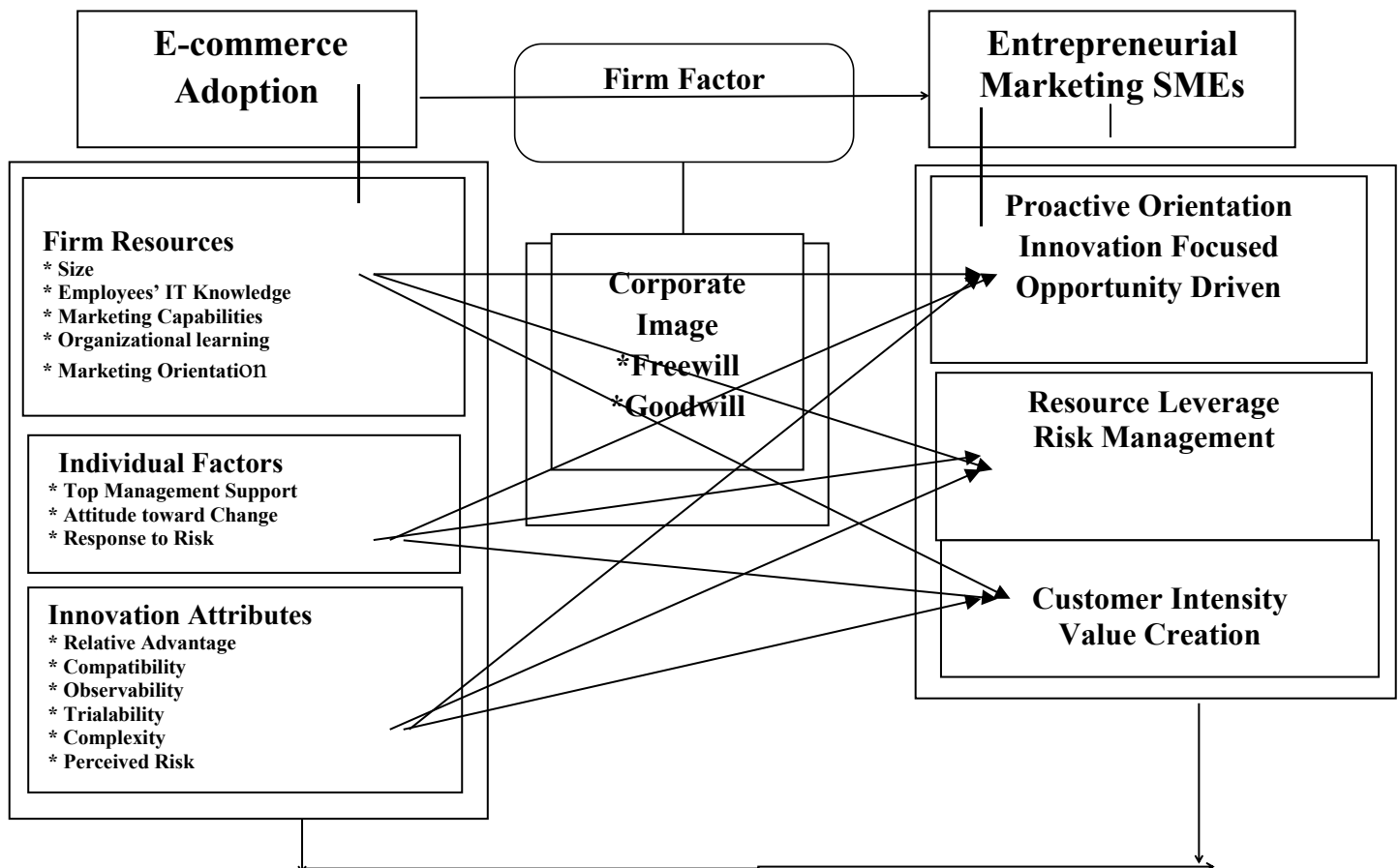
To sum up, the main benefits of online adoption as cited by these studies include low cost, effective communication, internationalization, increased visibility and increased market potential. Among the commonly cited barriers to web adoption are management's lack of awareness of the technology, security concerns, cultural barriers, problems in solving compatibility issues with existing IT system, lack of online payment process, difficulty of finding and training qualified personnel, lack of human interaction and lack of resources (Mavromatis & Buhalis, 2003; Poon & Swatman, 1997; Khan, 2004; Dedrick & Kraemer, 2001; Kaynak et al., 2005; Bolongkikit, et al., 2006, Taylor & Murphy, 2004).

### **The Development of Hypotheses of the Research**

The above figure (2.4) illustrates the Operational Framework/ model. This section will provide an explanation of the predictors and moderating/intervening and criterion variables in the hypotheses settings of study.

Figure: 2.4:

**OPERATIONAL FRAMEWORK: E-COMMERCE ADOPTION AND ENTREPRENEURIAL SMEs IN RIVERS STATE, NIGERIA**



**Interface of Hypotheses Constructs**

Source: Authors Construct, 2023

**Firm Resources**

As mentioned above and in line with the resource-based view of the firm (RBV), firm resources include five sub-dimensions that are size, employees' IT knowledge, marketing capabilities within the firm, organizational learning and market orientation. Real, et al. (2006), also indicate that competitive advantage stems from a company's capabilities and skills with organizational learning becoming a fundamental strategic aspect. The following hypotheses are formulated from the sub-factors discussed:

**H1: The pro-activeness and size of the SMEs will be negatively related to the likelihood of E-commerce adoption.**

**H2: Innovativeness and Employees IT knowledge will be negatively related to the likelihood of E-commerce adoption.**

**H3: Opportunity-driven orientation and Marketing capabilities within the firms will be negatively related to the likelihood of E-commerce adoption.**

***H4: Resource leverage and positive orientation toward organizational learning will be negatively related to the likelihood of E-commerce adoption.***

***H5: Risk management and the degree of marketing orientation will be negatively related to the likelihood of E-commerce adoption***

#### **Innovation Attributes**

As earlier discussed, the innovation attributes included in the model are the five attributes suggested by Rogers (2003, p.221) as well as Bauer's perceived risk. The following are the hypotheses construct from the identified characteristics of innovation:

***H6: Customer orientation and the perceived relative advantage of the internet will be negatively related to the likelihood of E-commerce adoption.***

***H7: Value creation and the perceived compatibility of the internet will be negatively related to the likelihood and E-commerce adoption.***

***H8: Pro-activeness and the perceived observability of the internet transactions will be negatively related to the likelihood of E-commerce adoption.***

***H.9 Innovativeness and the perceived complexity of the web will be negatively related to the likelihood of E-commerce adoption.***

***H10: Opportunity driven orientation and perceived trialability of the internet will be negatively related to the likelihood of E-commerce adoption.***

***H11: Resource leverage and perceived risks associated with the internet will be negatively related to the likelihood of E-commerce adoption.***

#### **Individual Factors**

As discussed above and in line with Theory of Reasoned and Theory of Planned Behaviour, Technology Acceptance Model and previous empirical results, individual factors include three sub-factors that are top management support, decision makers' attitude toward change and response to risk. These factors have received empirical support from past researches indicating a significant positive influence on innovation adoption (Corbitt, 2000; Thong, 1999; Lockett & Littler, 1997; Brancheau & Wetherbe, 1990; Sultan & Chan, 2000). The following are the hypotheses constructs for testing based on these sub-factors:

***H12: Risk management and Top management support will be negatively related to the likelihood of E-commerce adoption.***

***H13: Customer intensity and Management's attitude toward change will be negatively related to the likelihood of E-commerce adoption.***

***H14: Value creation and management's response to risk will be negatively related to the likelihood of E-commerce adoption.***

#### **Environmental Factors**

From the conceptual framework and field work interviews, the factor of environment is conversed as part of drivers of adoption of online marketing. It consists of intense competition, government support, regulations and control and out of which the following hypotheses are formulated:

***H15: Intense competition among firms marketing online will scare potential adopters.***

***H16: Government support, regulations and control will be negatively related to the likelihood and level of E-commerce adoption.***

### **Gaps in Literature**

After a thorough review of the theories and empirical studies on innovation adoption in literature and with a particular focus on the E-commerce adoption, the following gaps have been identified and these will be addressed by this research:

i). Research on innovation adoption has primarily focused on the individual consumer as the adopter of the innovation. Fewer studies focused on the business to business adoption of innovations. Businesses have different decision making processes from consumers and thus their adoption decisions may be influenced by different factors and is worth studying. Additionally, only few researchers studied Internet adoption in small and medium sized enterprises in this part of the world.

ii). Internet adoption has been primarily studied as a dichotomy with only few studies taking the level of adoption into consideration. Internet adoption is more of a continuous process that consists of several stages rather than simply an adoption versus non-adoption decision. It is thus necessary to determine the factors that affect the different stages of internet adoption by firms.

iii). The technological innovation literature has identified many variables that are possible determinants of organizational adoption of an innovation. This large number of variables suggests that more research is needed to identify the important ones. Additionally, it is important to determine the significant factors affecting the different stages of adoption.

iv). Most of the innovation adoption literature has been implemented in more developed countries. It is important to extend this research to developing countries in order to see whether the same factors hold true there. Developing countries represent a significant part of the world. Understanding the challenges and drivers to internet adoption in these countries, particularly for a global industry such as service marketing SMEs would help provide a more comprehensive view of how to manage these different factors with the ultimate aim to raise the competitiveness of such an industry worldwide.

### **RESEARCH METHODOLOGY**

In order to investigate the drivers of online marketing adoption among SMEs, we take an empiricist/positivist approach that will demand the collection and analysis of quantitative data. This stance is to ensure that the objective of the study is achieved and can be relied upon for generalisation. The methodology of any research is the core of the research work. This is based on the fact that it addresses issues relating to the design, population of the study, the sample and sample techniques, type and sources of data used, method of data analysis, model specification if any, variables in model and limitation of data collection instruments.

### **Research Design**

Research Design is a plan or strategy for conducting a research. It is not the same thing as the research methods, which is the ways and means, or a process for achieving a set goal. Research Design deals with the fundamental questions of how the study variables will come into the scope a measurement to enhance a robust understanding in solving the research problems. Once the research objectives have been determined, hypotheses formulated, all data variables will be specified to ensure appropriate measurement scaling, the design thus indicates how these will be carried out by the researcher. The research design used in this study is Descriptive Design within

the survey design framework, which seeks to state exactly the respondents positions on issues raised without the researcher's bias, (Ezejelue, Ogwo & Nkamnebe, 2008; Aham, 2000; & Asika, 2009).

### **Population**

The population of this research is all the Entrepreneurial SMEs in Rivers Nigeria, that carry out marketing activities online. According to online sources: [http:// www.onlinemarketing.com.ng](http://www.onlinemarketing.com.ng) , accessed on 10/10/23; there are 7,062 E-commerce enterprises doing their marketing functions online as at this date. SMEs (offline), whose lines of business do not adopt online marketing, are excluded from the survey. Four criteria are used to choose firms that will form the sample of this survey as follows:

- i. **Company size:** four different sizes; micro, small, medium and large enterprise. This research is concerned with small and medium scale enterprises.
- ii. **Web adoption status:** ordinary, simple, sophisticated and global adopters will be part of the survey. Here simple and sophisticated adoptions are studied.
- iii. **Location of business:** Rivers State (one of the bustling marketing oriented state in Nigeria, and has a large number of online operators).
- iv. **Line of business:** marketing of goods and services.

The basic idea of sampling is that by selecting some of the elements in a population, we may draw conclusions about the whole population. Since the main objective of any research is to draw general conclusions about the population, the sample chosen must be representative of the population it belongs to (Diamantopoulos, & Schlegelmilch, 1997). Three important decisions were made regarding sampling: these are the population, sampling frame, and the sample size.

According to web directory [http:// www.onlinemarketing.com.ng](http://www.onlinemarketing.com.ng) ; there are 1,433 firms, and relative to the criteria outlined above a technical sample size of 32 SMEs were studied using Taro Yamani formula to arrive at this number. Within a population of 1,433: 67.48% (967) were micro size-ordinary adopters; 14.10% (202) were small size-simple adopters; 13.12% (188) were medium size-sophisticated adopters; and 5.30% (76) were large size- ordinary, simple and sophisticated adopters. The total population of the SMEs, whose adoption levels were simple and sophisticated was 400 SMEs. Applying Taro Yamani formula to the 400 SMEs yielded 40 SMEs, out of which 32 SMEs responded effectively by answering their questionnaire. 8 SMEs did not answer theirs and telephone calls made to them severally did not yield any response, so were not considered here.

Primary data were collected using structured questionnaire and in-depth interviews. One hundred and sixty, (160) questionnaires were administered to the sampled SMEs owner-managers and staff. The questionnaires were successfully retrieved as a result of the interpersonal friendly relationship the researcher developed and established with the respondents. Extant literature formed another strong source of data, as they are used to evaluate similar and different views and reconcile differences of opinion where they exist. The in-depth interviews were recorded in written form and taped to ensure recollection of opinions shared that were not properly recorded.

Preliminary Contingency tables were constructed to arrange the primary data into simple percentages and frequencies, (these tables are numerous and not shown). Then the descriptive statistics tables where the preliminary tables are compounded and used for statistical tests are shown in tables 4.1\_4.10. Probability-value (p-value), Analysis of variance (ANOVA), and Logistic Multiple Regression Analysis (LMRA), were carried out to ascertain the extent of influence. These various tests results provide the appropriate scale for acceptance or rejection of the study

hypotheses which assisted the author’s conclusion, (Diamantopoulos, A. 2000; Diamantopoulos & Schlegelmilch, 1997; & Doherty et al, 2003).

**FINDINGS AND IMPLICATIONS FOR BUSINESS SUSTAINABILITY**

The previous section explains the methodology used in the study in relation to the data collection and analysis. This section presents the Firms’ Resources data in table 4.1, the descriptive statistical computation, relative frequency of responses, and means and ranking of the variables that drives Online adoption; Section 4.2: contents Additional Statistical Tests (P-value, ANOVA and Logistic Multiple Regression Analysis) and section 4.3, presents the Analysis of findings.

**Table 4.3.**  
**COEFFICIENTS**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.836	.855		-2.147	.034		
I.T. Knowledge (3)	.017	.029	.055	.577	.565	.471	2.122
Market Capability (1)	.046	.053	.117	.865	.389	.232	4.318
Organizational Learning And Positive Orientation (1)	.163	.039	.362	4.210	.000	.570	1.754
Market Orientation (1)	-.091	.051	-.238	-1.788	.076	.237	4.222
Relative Advantage (1)	-.165	.046	-.427	-3.561	.001	.293	3.408
Compatibility (3)	.047	.041	.109	1.140	.257	.462	2.164
Observability Complexities	.022	.024	.077	.913	.363	.589	1.698
Trialability	.388	.089	.362	4.362	.000	.611	1.636
Perceived Risks	.047	.023	.204	2.034	.044	.418	2.390
Management Support	.014	.047	.037	.298	.766	.276	3.617
Management Attitude To Change (1)	.086	.059	.150	1.464	.146	.400	2.500
Management Response to Risks	.002	.031	.006	.061	.951	.422	2.372
Competitions	-.022	.019	-.096	-1.138	.258	.594	1.684
Govt Regulations	.279	.079	.353	3.554	.001	.427	2.343

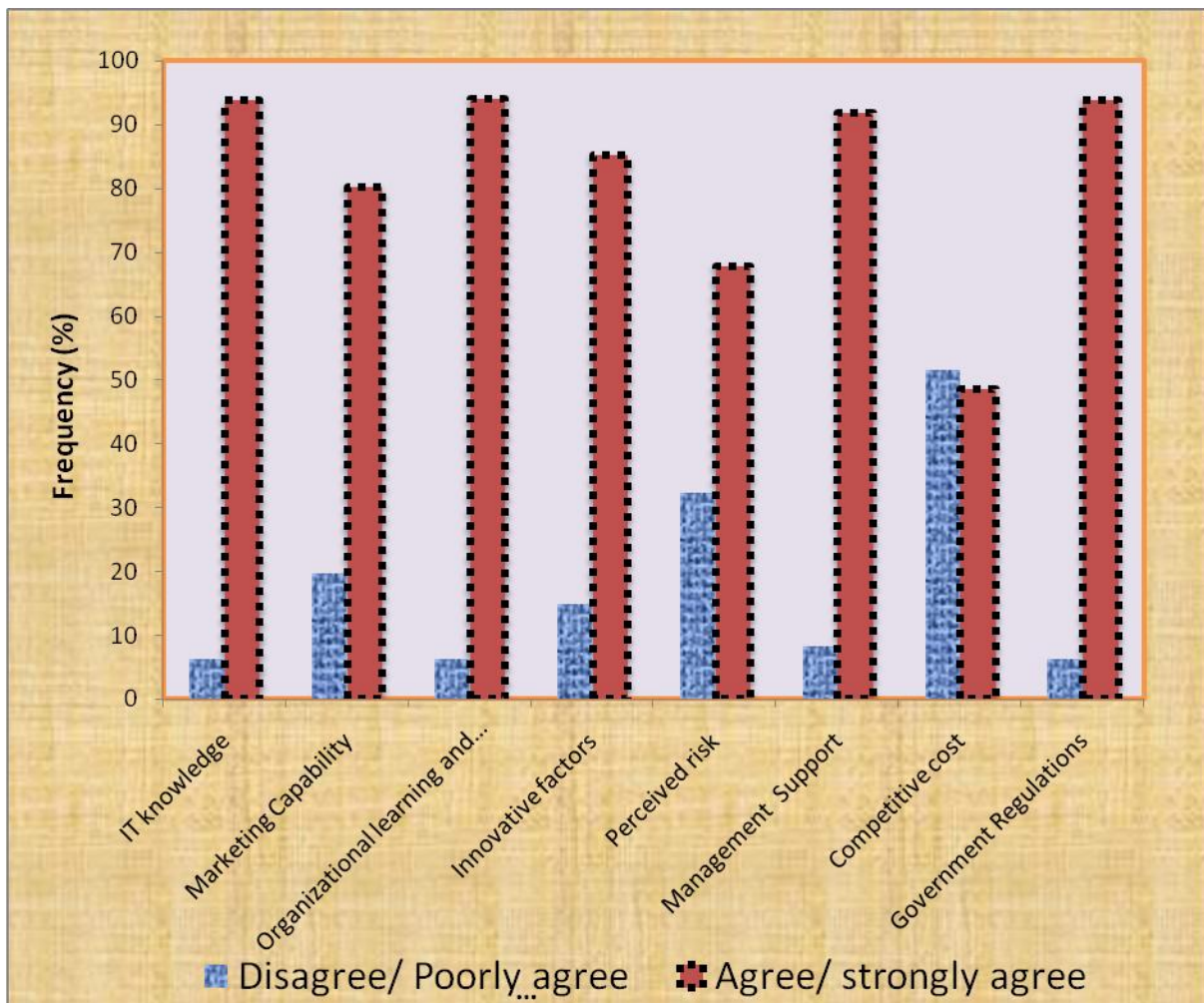
The logistic multiple regression analysis will be used to compare the contribution of the independent variables; therefore the beta values will be used. Looking down the beta values we will look for the independent variables with the larger values which are (Marketing Capability, Organizational Learning and Positive Orientation, Relative Advantage, Trialability, Perceived Risks and Government Regulations) made the strongest contribution to explaining the factors that influence the adoption of online marketing among small and medium scale enterprises (SMEs) in Nigeria and at the same time where statistically significant having their sig. values less than 0.05. This means that they made strong significant contributions to the predicting the decision of dependent variable on levels of adoption.

**Analysis of Findings**

In summary, this study found that the factors that drive the adoption of online marketing in small and medium scale enterprises in Rivers State, Nigeria are: IT knowledge, Market capability, Organizational Learning and Positive Orientation, Innovation components, Perceived risk,

Management support, Competitive costs, and Government regulations. All the factors were statistically found to be significant at 5% significant level, with respective p-values being less than 0.05. Also, for most of the factors, different classes of measurement scale for most of the factors were also found to have shown significant effects on online marketing adoption. The results in Table 4.6 can further be shown in a compound Bar chart below:

**Figure 4. 4:**  
**Compound Bar Chart of Factors that Drive E-commerce Adoption in Rivers State, Nigeria**



The figure 4.4: Compound Bar Chart above depicts the extent of influence these identified and examined factors have on adoption and which level to stay on. Firms wishing to go online should look for, possess, train for and/or acquire these driver elements in order to do well in the marketplace.

Furthermore, figure 4.17, below shows the summary results of the statistical tests and indicates the extent of influence each variable have on adoption decision and contains vital information for marketing managers who intend to go online or add to their offline activities.

**CONCLUSION**

The E-commerce adoption as an integral part of Internet is transforming the way companies conduct their businesses and it is becoming an increasingly critical tool for marketing success. The Internet enables companies to obtain several advantages over the competitors. Some of the changes brought about by the Internet can be seen in the way we purchase goods and services,

find information about products and services, and do our banking. The Internet has significantly reduced the cost of producing and distributing digital goods such as software, news, music, stock quotes, and pictures. Marketing managers must assess the role of the Internet and adopt same in their marketing strategies.

## **RECOMMENDATIONS**

On the premises of foregoing the authors make the following recommendation for practical purposes:

(i). That marketing organization that want do to business in the 21<sup>st</sup> Century should go online for continual survival, (Mobile connections, Email/Gmail, and Websites).

The entire world is now a global-village, therefore marketing managers in Nigeria should conform to the pattern of global trends in order to connect with the outside world, to disconnect is to fail and no marketer can afford to fail.

Small and Medium scale enterprises (SMEs), opting to adopt online marketing should invest in their staff acquiring IT Knowing, ensure managerial support, be prepared to take risk, approach intense competition with an appropriate strategies. Training to prepare for e-marketing adoption-there is need to train key personnel on e-marketing strategy so as to overcome most significant barriers such as the security and technologies associated barriers.

(ii). Government should ensure that the relevant legislations are provided to punish infractions; this will encourage larger participation and deterrent to fraud.

(iii). Websites should use effective electronic Customer Relation Management (CRM), to help encourage customers and to create impression that can capture their preferences and requirements. However, marketers should realize that there is need to include contact details, e-mail, an online feedback form, an electronic newsletter, promotions, special offers and other loyalty schemes, a call-back service, and personalization through customized content.

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