

Demographic Moderators of Online Advertising Usage of Selected Small-Scale Businesses in Nigeria and its Impact on Perceived Profitability

OKORO Nnanyelugo, *Ph.D.*

University of Nigeria, Nsukka, Enugu State, Nigeria

&

EPEPE Umefien Dakoru, *Ph.D.*

National Institute for Nigerian Languages, Aba, Nigeria

Abstract

This paper examines demographic moderators of online advertising usage of selected Nigeria-based small businesses in relation to its impact on perceived profitability. The objective is to ascertain the relationship between usage and perception of profitability using employment status, gender, age of respondents, age of business, length of Internet use (in years) and level of education. *This exploratory research anchors* on the E-VALUE model. The study adopted the survey research design and multistage sampling technique to select respondents of small-scale businesses in six state capital cities in Nigeria. The instrument of data collection was questionnaire and the statistical package for social sciences (SPSS) version 20.0, which was used to analyse data. The study found that there is a strong positive linear relationship between education, length of Internet use and perceived profitability of usage. In contrast, there is a negative relationship between age of respondents, employment status, gender, age of business, and perceived profitability of usage. The paper recommends that future studies should seek to measure online advertising usage and actual profitability of small businesses, which is germane to the socio-economic

development of a country like Nigeria.

Keywords: Online advertising, Nigeria, E-VALUE, Small-scale businesses, Perceived profitability

Introduction

Online advertising, which is advertising on the Internet or Web, has disrupted the traditional global advertising industry since it began in 1994 (Kaye & Medoff, 2001; Evans, 2008, 2009). In 2005 for instance, the Internet ranked sixth in global advertising media, behind television, newspapers, magazines, radio and outdoor (Johnson, 2013) and grossed an estimated revenue of 625 billion US dollars in 2007 (Minton, 2007). However, in 2013, the Internet overtook newspapers, and radio to become the second largest advertising medium, only behind television (ZenithOptimedia, as cited in Johnson, 2013) which also forecasts that online advertising would account for 20.6 per cent of global advertising spending by the end of 2013 and 26.6 per cent of global advertising spending in 2016. Perhaps, two online advertising platforms that have contributed to this growth are Facebook and Google (Efrati, 2012).

Although the Internet is a global phenomenon with unique regional profiles (Anderson & Eickelman, 1999), extant studies have identified some reasons for increasing use of Internet advertising. For instance, Luqman and Abdullah (2011, p. 2) opine that the Internet has opened up the global marketplace for businesses of all sizes to drive their businesses. In fact, online advertising offers flexible, functional, structural, dynamic, transformational advertising practices and affordable and round-the-clock visible advertising solutions to a wider audience (Eriksson, Hultman, & Naldi 2008; Poon & Strom, 1997; Stafford & Stafford, 2000).

A combination of these factors may have changed advertising dynamics and perceptions on business profitability,

particularly for small-scale businesses (Goldstuck 2012). Some optimistic researchers expect that small-scale businesses would benefit most from Internet advertising since they are more financially constrained to afford traditional advertising options (Barker, 1994; Duncombe & Heeks, 2001). Many researchers also agree that small-scale businesses are the 'engine room' of the economy, because of their potential to drive innovation and economic growth (Apulu & Latham, 2009, p. 65; Ayozie, 2011; Egbetokun, Adeniyi, Siyanbola, & Olamide, 2009; Ihua, 2009).

The contributions of the small and medium scale enterprises (SMEs) sector to the development of the largest economies in the world have attracted significant research interest (Dholakia & Kshetri 2004; Ihua, 2009; Poon & Swatman 1997, 1999). Hence, with the rise in popularity of the Internet, governments in developed countries have provided legitimate and positive leadership in digitalising their economies to help small SMEs and entrepreneurs contribute to accelerated economic development (Alam & Noor, 2009; Heenetigala & Armstrong 2009; Dun & Bradstreet as cited in Dholakia & Kshetri, 2004; Kennedy, 2012; Poon & Swatman, 1997, 1999). This is because the economy benefits as small businesses profit from having a Web presence (Goldstuck, 2012).

In Nigeria, Ndumanya (2013) reports that situation analysts agree that comparatively, SMEs contribution to the economy is still below expectation for myriad reasons such as inadequate infrastructural support and limited application of innovation to operations (see also Ihua, 2009; Onugu, 2005). MMS 2009 (as cited in Asato, 2010) reveals that total advertising spending in Nigeria for 2009 was over \$400 million, with digital media accruing less than 1 per cent of total spending. In contrast, this figure was significantly below what was obtained in countries where online advertising has been significantly adopted (MMS, 2009 as cited in Asato, 2010).

However, Asato (2010) submits that over the years, Internet marketing has evolved in Nigeria as marketers and clients

are becoming aware of the need and its impact. In this case, small-scale businesses in Nigeria might have the opportunity to leverage on opportunities provided by online advertising to improve business profitability. It is on this premise that this paper sought to analyse demographic moderators of online advertising usage of small businesses with respect to its impact on perceived business profitability using Facebook and Google.

Statement of the Problem

The fact that advertising drives businesses challenged pioneer internet users and scholars to explore its usefulness in ecommerce and advertising for small-scale businesses. For example, Poon and Swatman (1995) *discussed opportunities the Internet provides small and medium enterprises (SMEs) as well as the most effective approaches to consider*. Some other studies focused on the impact of the Internet on existing business models (Abell & Lim, 1996; Fuller & Jenkins, 1995; Poon & Swatman, 1998). While Dholakia & Kshetri (2004) found that prior technology use and the customer service subscale of perceived competitive pressure influence SMEs Internet adoption, Jagoda (2010) concludes that the size and age of SMEs play vital roles in e-commerce adoption. In addition, extant studies have covered general ecommerce usage of SMEs (e.g., Adekunle & Tella, 2008; Apulu & Latham, 2009), while Alam and Noor (2009) provide a deeper understanding of SME's perception of ICT adoption in their service business using five factors: perceived benefits, perceived cost, ICT knowledge, external pressure, and government support.

In contrast, Shen and Khalifa (2010) and **Vedantham (2011)** focused on gender differences in Internet usage. Ellison, Steinfield and Lampe (2007, p. 1143) contend that in spite of the growing research interest regarding Facebook, a significant part of existing studies has focused on identity presentation and privacy concerns (e.g., Gross & Acquisti, 2005; Stutzman, 2006). Similarly, Afolabi, Matikiti, and Smith (2012) observe that as the Internet and its related technologies attract significant research

interest, documentary evidence on its use for marketing purposes remains unclear, particularly in terms of value creation. In addition, to the best of the researchers' knowledge, there is inadequate empirical evidence on how demographic factors moderate perception of usage of online advertising on business profitability amongst small-scale businesses in Nigeria. This paper aims to address this knowledge gaps in the field of research using Facebook and Google. We hope that this paper provides empirical evidence from which future impact studies on online advertising and small-scale businesses may leverage.

Objectives of the Study

The objectives of this paper are to:

1. Find out the relationship between employment status of small-scale business operators and perceived influence of online advertising on business profitability;
2. Examine the relationship between gender of respondents and their perception of profitability of online advertising;
3. Find out the relationship between age of small-scale business operators and their perception of profitability of online advertising;
4. Identify the relationship between age of small-scale businesses and perception of profitability of online advertising;
5. Examine the relationships between length of internet usage and perception of profitability of online advertising;
6. Find out the relationships between level of education of small-scale business operators and their perception of profitability of online.

Research Hypotheses

1. **H₀:** There is no significant relationship between employment status of small-scale business operators and perceived influence of online advertising on business profitability.

2. **H₀₂:** There is no significant relationship between gender of respondents and their perception of profitability of online advertising.
3. **H₀₃:** There is no significant relationship between age of small-scale business operators and their perception of profitability of online advertising.
4. **H₀₄:** There is no significant relationship between age of small-scale businesses and perception of profitability of online advertising.
5. **H₀₅:** There is no significant relationship between length of internet usage and perception of profitability of online advertising.
6. **H₀₆:** The level of education of small-scale business operators does not affect their perception of profitability of online advertising.

Online Advertising

The Internet has attracted significant research interest in the past two decades. For instance, Ngai (2003, p. 27) estimates that between 1987 and 2000 alone, 270 journal articles were written on Internet marketing and that research on ecommerce significantly increased from 1996. Of these articles, advertising accounted for only 9.9 per cent of subjects covered. In a review, Bond (2010) notes that extant online advertising research focused on: effectiveness of advertising media on Facebook (ACNielsen & Facebook, 2010); motivations, perceived interactivity and advertising outcomes (Ko, Cho & Roberts, 2005; Zeng, Huang & Dou, 2009); consumer attitudes towards interactive advertising (Ming-Sung Cheng, Blankson, Shih-Tse Wang & Shui-Lien Chen, 2009) and relationship between online engagement and advertising effectiveness (Calder, Malthouse & Schaedel, 2009). In addition, Evans (2008, 2009) extensively reported the economics of online advertising and privacy issues. In the context of display adverts, Drèze and Hussherr (2003) indicate a relationship between display adverts and long-term brand

awareness, while Chatterjee, Patrali, Hoffman and Novak (2003) found correlation between advert exposures on click-through behaviour. Anecdotal evidence suggests that the use of Facebook increased brand awareness, trust and customer loyalty for small businesses (Ryan as cited in Kennedy, 2012).

However, pertinent studies on general SMEs' Internet and ecommerce adoption abound. Poon and Strom (1997) note that one of the pioneer researchers who conducted research on the importance of the Internet for small businesses was Barker (1994) who found that searching for customer information and obtaining specific information for marketing purposes were the most important benefits the Internet offered to small businesses. Ever since, studies have covered different aspects of small business and Internet use. For instance, Abell and Lim (1996) in their exploratory study of SMEs use of the Internet in New Zealand found that of all the small companies that were making more use of the Internet and experiencing more benefits, only a quarter of those use the Internet for marketing. Alam, Khatibi, Ahmad and Ishmail (2008) in their Malaysian study of SMEs ecommerce adoption, report that relative advantage and compatibility have positive and significant influence on adoption whereas complexity and security have negative effects.

Elliott and Boshoff (2007) findings indicate among others that that the level of involvement of owner-managers, knowledge of owner-managers, and their marketing orientation are important factors for small businesses use of the Internet for marketing. In terms of value creation, Mohamed, Marthandan and Daud (2008) found that *years of e-commerce experience moderate the relationship between e-commerce usage and business performance*. Afolabi *et al* (2012) indicate that property size and environmental competition do not determine Internet marketing usage. In contrast, Jagoda (2010) found that size and type of firm, age of a firm plays a vital role in ecommerce adoption. Rettie, Robinson & Jenner (2003) evaluated attitudes to Internet advertising, and to determine how length of time, frequency of

use, experience and volume of use were affected by the extent of Internet experience and found that a perceived benefit has a strong, significant relation to ICT adoption. *Apulu and Latham (2009)* and *Ihua (2009)* found that location of business affects ecommerce adoption. A Kelsey Group research found that about 10 percent of small businesses in the United States were using email marketing to promote their services (Nua Internet Surveys, as cited in *Dholakia & Kshetri, 2004*). According to *Goldstuck (2012)* in his Digital Participation Curve notes, it takes up to five years for new Internet users to gain the confidence and experience required to become active participants in the Internet economy. In an African SMEs survey of SMEs, *Duncombe and Heeks (2001)* found that 90 per cent of SMEs operators lack skills to utilise ICT.

Small Business Internet Use and Perceived Business Profitability

There is an appreciable amount of published empirical studies on the impact of Internet use on perceived benefits and profitability (*Bingi & Khamalah, 2000; Goldstuck, 2012; Lim, 2006; Mohamed et al, 2008; Wang & Tasai, 2002*). Few studies have emphasised the impact of internet marketing on the performance of businesses in some countries (*Chaston & Mangles, 2003; Goldstuck, 2012; Lim 2006; Mohamed et al, 2008; Ozituran & Roney, 2003; Shin, 2006*). For instance, *Goldstuck (2012)* submits that SMEs with a website are more likely to be highly profitable than those without a website. In his SMEs survey, *Goldstuck (2012, p.7)* concluded that having a website correlates with increased profitability as 79 per cent of SMEs with a website report that they are profitable, with 30 percent of these stating they are strongly profitable. Out of those without a website, only 59 percent reported profitability and just 14 per cent of this, claimed to be strongly profitable.

Sakai (2002) found that the extensive use of ICT could allow small businesses with ideas and technologies to remain small and profitable or generate substantial global sales by

exploiting their intellectual property over the Internet. Empirical studies have confirmed positive effects of information and communication technologies (ICTs) on a firm's performance in terms of productivity, profitability (Goldstuck 2012) and market value (Mohamed *et al*, 2008).

Many SMEs believe that doing business over the Internet will generate desired returns in terms of profit (Afolabi *et al*, 2012). In other words, the main motivation for the SMEs to adopt new technologies such as the Web is the anticipated benefits these technologies will bring to the company (Goldstuck 2012). In particular, Afolabi *et al* (2012) report a relationship between profitability, managerial support and Internet marketing usage. In their studies, Poon, Swatman and Vitale (1996) and Reynolds, Savage and Williams (1994), report that strong owner influence plays a significant role in SMEs adoption of new technology. The education and experience of employees of small businesses, and owner/managers particularly, have also played a role in influencing the adoption of an innovation.

However, the overall impact of usage on business performance and profitability is inconclusive (Lo & Darma, 2000). Similarly, Adekunle and Tella (2008) argue that the relationship between experience, e-commerce adoption, and business performance is much more complex than assumed previously. For instance, studies have shown that savings or earnings directly from the Internet are marginal (Abell & Lim, 1996; Poon & Strom, 1997; Poon & Swatman, 1997). While some other studies submit that e-commerce adoption increased profitability of businesses (Goldstuck, 2012; Mohamed *et al*, 2008; Rettie *et al*, 2003; Sakai, 2002), some other researchers found no link between e-commerce and business profitability (Grandson & Pearson 2004; Kivijarvi & Saarinen, 1995; Lo & Darma, 2000; Merhrtens, Cragg & Mills, 2001; Singh & Harmon, 2003).

In addition, studies have identified other demographic moderators of perceived profitability of e-commerce usage. For

instance, in terms of age of small businesses, Jagoda (2010) found that only less than 5 percent of firms that are less than 5 years are currently using or intending to use e-commerce (see also van Brakel & Thompson, 2003; Eriksson, Hultman & Naldi 2008). Some studies have positively linked management or employers support to SMEs e-commerce adoption (Matlay & Addis, 2003; Mohamed *et al.*, 2008; Reynolds *et al.*, 1994).

Evidence suggests that the relationship between e-commerce/ICT and business performance is affected by the experience in which the business has used e-commerce (see also Afolabi *et al.*, 2012; Goldstuck 2012; Mohamed *et al.*, 2008). Pertinent studies have reported that age is an important factor in internet usage. For instance, Shen and Khalifa (2010) opine that the fastest growing demographic on Facebook consists of those 30 years old and older and with its immense popularity and open participation. This shows a greater potential in developing customer communities, promoting online presence, advertising, and customising of services and products. They contend that in the United Arab Emirates, a high Internet penetration rate has brought the younger generation online, and most of them are adolescents and emerging adults, suggesting that young adults are more likely to embrace technological innovations faster than mature adults.

Lymer, Johnson and Nayak (1996) observe that ICT implementation in SMEs has the potential to reduce costs and increase productivity (see Lim 2006). According to them, small firms might find cost-effectiveness as a moderator of Internet-commerce use for improving communication with trading partners and consumers. Similarly, Lauder and Westall (1997) opine that ICT impact include cheaper and faster communications, better customer and supplier relations, more effective and efficient marketing, product and service development and better access to information and training. However, Poon and Strom (1997) indicate that direct and indirect advertising, low cost communication, and easy access to potential customers are most important benefits of e-commerce. While an E-consultancy and

Adobe (2013) survey reports that marketers are searching for greatest return on investment (ROI) from various digital advertising spending, Kireyev, Pauwels and Gupta (2013, p. 2) found that that both search and display adverts displayed significant dynamics that improve their effectiveness and return on investment (ROI). Perhaps, an understanding of the demographic dynamics of small-scale business operators might make the difference between perceived business profitability and actual profitability of online advertising usage.

Theoretical Framework

We anchored this paper on the E-VALUE model, developed by Mohamed *et al* (2008). The E-VALUE model was developed to bridge the gap between the Technological, Organizational and Environmental (TOE) model and Resource-Based View (RBV) Theory and is used to predict e-commerce usage in terms of value creation. In proposing the specific constructs within the E-VALUE model, Mohamed *et al* (2008) considered the concepts of e-commerce drivers, e-commerce usage and value creation by integrating significant technological, organisational, and environmental factors found in prior studies. The core tenets of the model examines the impact of e-commerce usage on business performance by combining the pre-adoption issues and post-adoption issues of e-commerce usage and introduces the effect of a moderating variable (experience) and the effect of a mediating variable (back-end integration) on the relationship between the usage of e-commerce and moderating variable (front-end functionality) of business performance. Thus, the E-VALUE model becomes an interactive, comprehensive and multi-dimensional theoretical model to assess the drivers of e-commerce usage in terms of value creation.

A major limitation of the E-VALUE model is that it is still in its infancy as such have not undergone wide criticisms in ecommerce scholarship. However, Mohamed *et al* (2008) and Afolabi *et al* (2012) tested constructs of the model on the

Malaysian and South African tourism sectors respectively and both studies found a significant positive relationship between profitability and business performance. Although the E-VALUE model is relevant to this paper, we observe that it failed to consider the impact of demographics, which is as an important part of organisational productivity. Hence, we introduced the effect of demographic moderators as the back-end integration to test the relationship between online advertising usage and perceived business profitability (front-end functionality).

Methodology

The study adopted survey research design. The population of the study was all small-scale businesses in Nigeria that had between 1-15 staff. Number of employee delineation is the most commonly used in management research (Ghobadian & Gallear, 1996; Haksever, 1996; Terziovski, Samson & Dow, 1997). Due to paucity of comprehensive data, we used a list of small Nigeria-based small businesses retrieved from Vconnect (Nigeria's online business directory) on 03/07/13, which revealed approximately 59,711 small businesses. This is consistent with documented evidence from Watson and Everett (1996, p. 52), which reported lack of reliable data as a major difficulty in studying small business. Similarly, Goldstuck (2012) in his small businesses survey opines that part of the challenge in South Africa is infrequent online advertising market research, due to the difficulty of extracting accurate data from advertisers and online media.

We used multistage sampling involving stratification, random and purposive sampling techniques to select respondents. To achieve this, the population of small businesses was stratified into 6 geopolitical zones: Southeast, South-south, Southwest, North-central, Northeast and Northwest before random selection of a State (Imo, Akwa Ibom, Lagos, Benue, Taraba and Kano) from each stratum respectively. Since the researchers were interested in studying online advertising, it was logical to concentrate on capital cities (Owerri, Uyo, Ikeja, Makurdi,

Jalingo, Kano) of the randomly selected states, where internet infrastructure is presumed to be more accessible to respondents. This reduced the small businesses population to 1,011 respondents spanning six geopolitical zones in Nigeria.

This is consistent with Jankowicz (2005) who notes that the non-probability method is more suitable where there are challenges in accessing data (in this case internet access). In addition, the Krejcie and Morgan (1970) sample size formula was used to determine a sample size of 279 small businesses for the survey. This exceeds the recommended benchmark for statistical analysis (see Saunders, Lewis & Thornhill, 2003). A stratum size proportional to each stratum total for the six selected capital cities was determined using proportional allocation formula. The questionnaire was developed with relevant constructs from the E-VALUE model and pertinent literature. Two experts in Mass Communication and one in Statistics confirmed the face and content validity of the questionnaire. In addition, we piloted twenty copies of the questionnaire in Port Harcourt using a split-half test to ensure internal consistencies of responses. Accordingly, the Cronbach's alpha correlation between forms was 0.726 indicating strong reliability of the questionnaire.

The survey was conducted in August and September 2014, mostly using self-administered questionnaire. Emails complimented the process in a few cases such as Kano and Makurdi, which helped enhance the return rate. Twenty-three copies of the questionnaire were not returned due to respondents' apathy and suspicion on data use, while forty-five returned were not in usable form. However, we retrieved usable data from the 211 (75.6%) survey respondents and this was considered an adequate return rate (see Hair *et al* as cited in Afolabi *et al*, 2012, p. 192). Results were analysed using the Statistical Package for Social Sciences (SPSS) version 20.0. The model for overall data set was significant at (mean=2.5 and above and t-test= $p < 0.05$).

Results

Table 1: Demographics of Respondents

Demographic of Respondents	Responses n = 211	%
Age		
21 - 30	149	70.6
31 - 40	60	28.4
51 and above	2	1.0
Sub total	211	100
Sex		
Male	124	58.8
Female	87	41.2
Sub total	211	100
Level of Education		
Primary	8	3.8
Secondary	43	20.3
OND/NCE	39	18.5
HND/BSc	113	53.6
Postgraduate	8	3.8
Sub total	211	100
Duration of Business Existence		
Less than 5 years	87	41.2
Above 5 years	124	58.8
Sub total	211	100
Employment Status		
Employer	79	37.4
Employee	132	62.6
Sub total	211	100

Analysis in Table 1 show that majority 70.6 per cent of respondents were between 21-30 years old, 28.4 percent were between 31-40 years, with only 0.9 percent being 51 years and

above. This reveals that young people significantly constitute a higher percentage of respondents. This is consistent with Shen and Khalifa (2010) who report that a high Internet penetration rate of adolescents and emerging adults. We anticipate that this significant youthful age may positively relate to online advertising usage in this study. However, we explore this assumption in H_{03} . While more than half (58.8%) of respondents were males, 41.2 percent were females. This indicates a skewed distribution of gender, with the number of males significantly higher than females. It is interesting to note that majority of those who own or work in small businesses in Nigeria capital cities appears to be males. Studies have reported that males tend to use the Internet more than females (Shen and Khalifa 2010; Vedantham, 2011). Hence, the skewed nature of the gender percentage in this present study, which is in favour of males, may suggest gender preference for online advertising usage. We further explore this contention in H_{02} .

Descriptive analysis in Table 1 reveals that more than half (75.9%) of respondents have post-secondary education qualifications (20.4%) with only 3.8 percent having primary education qualification. This result suggests that majority of respondents' are quite literate. However, this result deviates from those of Adekunle & Tella (2008) who contend that almost 50 percent of the entire population of small businesses are not formally educated and that those who have formal education lack e-commerce education (see also Mounsey, 2002). Poon *et al* (1996) and Reynolds *et al* (1994) found that the education and experience of employees of small businesses, and owner/managers particularly, influence the adoption of an **innovation**. We therefore anticipate a positive relationship between education level and perceived profitability of online advertising usage. A major reason for this position is that the level of understanding and interpreting intricate internet transactions

increases with education. However, support for this contention is explored in H_{o6} .

More than half (58.8%) of small businesses have existed for 5 years and above, with 41.2 percent businesses having existed for less than 5 years. This result in Table 1 shows an uneven distribution in age of businesses. Result sharply disagrees with the assumption that 80 percent of small businesses fail within the first five years of startup (e.g., Chris-Aladum, 2013). The implication of this finding is that because small businesses in this study have exceeded the 5-year predictions, they are more likely to adopt online advertising. We expect this result to positively impact perceptions between usage and perceived profitability. Many past studies take similar position. For instance, Jagoda (2010) found that only less than 5 percent of firms that are less than 5 years are currently using or intending to use e-commerce (see also van Brakel & Thompson, 2003; Eriksson, Hultman & Naldi, 2008). We further explore this contention in H_{o4} .

Majority (62.6%) of respondents were employees, while 37.4 percent are employers in the small businesses. This result depicts an uneven distribution of respondents' employment status, with employees having a higher percentage of respondents who agreed or disagreed to the assumption that online advertising will increase their business profitability (see Table 2). The implication of this is that the decision of a firm to adopt online advertising is that of the employers who constitute only about a quarter of total respondents. We anticipate that this may impact negatively on online advertising usage, especially if the employers are not technologically competent or do not support e-commerce. This contention finds support in extant studies on firms' acceptance of a new technology (Matlay & Addis, 2003; Mohamed *et al*, 2008; Reynolds *et al*, 1994). Poon *et al* (1996) found that strong owner influence plays a significant role in SMEs adoption of an innovation. We further explored this result in H_{o1} .

Majority (78.2%) of the firms are typically small having between 1-10 staff. In addition, 24.2 percent of respondents have never used the Internet. This result is quite unexpected considering the cosmopolitan location of respondents. *Apulu and Latham* (2009) and *Ihua* (2009) found that location of business affects e-commerce adoption. Although 7.1 per cent have used the Internet for less than one year, 8.5 percent have used it for between 1- 3years, 20.9 percent have used the Internet for less than 5years and 13.7 per cent have used it for 5-7years, while 25.6 percent have used the Internet for over 7years. The fact that majority (60.2%) of respondents have used the Internet for over 3 years, strongly suggests a likelihood of using the Internet for business advertising purposes.

Studies have consistently linked frequency of usage in terms of hours spent daily on the Internet and experience (in years) to adoption of e-commerce (Goldstuck, 2012; Mohamed *et al*, 2008; Rettie *et al*, 2003). The implication of this is that the longer the period of Internet use, the more likely small business operators might explore online advertising for profit motives. We anticipate that this demographic variable might be an important back-end integration moderator of front-end functionality of usage and perception on profitability, as the E-VALUE model proposes. We explore this relationship further in Ho₅.

Table 2: Moderating effect of usage and perceived increased profitability

Item	Mean
Online advertising will increase our business profitability	3.96

Result in Table 2 shows a mean score of 3.96, which was below the cut-off point of 2.5, confirms that **perceived increased profitability** moderates small businesses online advertising

adoption. The significant positive perception of profitability is consistent with the front-end functionality of the E-VALUE model. This finding is similar to those of Afolabi *et al* (2012) and Mohamad *et al* (2008) who tested the E-VALUE model and found a link between e-commerce adoption and perceived benefit. However, Lo and Darma (2000) contend that the overall impact of e-commerce on profitability remains inconclusive. In spite of this inconsistency, this present study found that small business operators' perception of benefit in terms of profitability is a moderator of online advertising usage. We anticipate that this perception will positively drive online advertising usage and actual business profitability. Perhaps, this relationship explains the reason Mohamad *et al* (2008) in developing the E-VALUE model contend that e-commerce usage and value are intertwined and could provide a holistic view of the post adoption diffusion and consequences of e-commerce.

Result in this present study has two important implications. First, the usage of online advertising will provide a viable and affordable alternative for small businesses' advertising efforts, which is crucial to achieving higher returns on investment (ROI). Secondly, confirms the position that the E-VALUE model can be cautiously used to predict actual profitability of small-scale businesses in Nigeria. This is perhaps possible, if small business operators can achieve a critical online advertising mass usage level and the expertise needed to actually profit from the Internet economy (Goldstuck, 2012; Poon & Swatman, 1999).

Test of Hypotheses

H₀₁: There is no significant relationship between employment status of small business operators and perceived profitability of online advertising usage

Table 3: Relationship between employment status of small business operators and perceived profitability of online advertising usage

	Employment status		t	P value
	Employer Mean ± SD	Employee Mean ± SD		
Perceived profitability of online advertising usage	3.86 ± 0.88	3.99 ± 0.89	1.072	0.285

Result in Table 3 on cross tabulation of employment status and perceived profitability of usage shows a significant value ($p < 0.285$). Since the significant value of the t statistic is greater than 0.05 level of significance, we therefore accept the null hypothesis. Hence, we conclude that there is no significant relationship between employment status of small business operators and perceived profitability of online advertising usage. In this case, negative relationship may be largely attributable to employees position since they constituted more than half (62.6%) of respondents. We argue that this position might significantly deviate from employers perceptions on usage and business profitability.

Elliott and Boshoff (2007) indicate that the level of involvement of owner-managers, knowledge of owner-managers, and their marketing orientation are important factors for small businesses use of the Internet for marketing. However, Apulu and Latham (2009) contend that many SME owner-managers in Nigeria are not familiar with the conceptual basis and potential benefits of adopting ICT. Hence, such managers may not support ICT usage. However, the conclusion drawn in this study is that employment status as a demographic component integrated into the E-VALUE model was not a moderator of perception of online advertising usage of small-scale businesses in Nigeria.

Ho₂: There is no significant relationship between gender of small business operators and perceived profitability of online advertising usage.

Table 4: Relationship between gender of small business operators and perceived profitability of usage of online advertising

	Gender		t	P value
	Male Mean ± SD	Female Mean ± SD		
Perceived profitability of usage of online advertising	3.96 ± 0.86	3.92 ± 0.92	0.315	0.753

Table 4 shows results of t statistic of a cross tabulation of gender and perceived profitability of online advertising usage is significant at ($p < 0.753$). Since the significant value of the t statistic is greater than 0.05 level of significance, the null hypothesis is hereby accepted. Therefore, we conclude that there is no significant relationship between gender of small business operators and perceived profitability of online advertising usage. However, descriptive analysis in Table 1 shows a higher percentage of male respondents than female, we may cautiously infer that small business operators who are males are more likely to use online advertising based on their perception on its impact on profitability than females. As a back-end integrated E-VALUE construct, gender failed to moderate usage and perception on profitability. This is consistent with pertinent studies, which found significant gender difference in creation of online videos and roles, played with video editing which was in favour of males (e.g., Vedantham, 2011).

Ho₃: There is no relationship between age of small business operators and perceived profitability of online advertising usage

Table 4a: Relationship between age of respondents and perceived profitability of online advertising usage

	Employment status		t	P value
	Employer Mean ± SD	Employee Mean ± SD		
Perceived profitability of online advertising usage	3.86 ± 0.88	3.99 ± 0.89	1.072	0.285

Result in Table 3 on cross tabulation of employment status and perceived profitability of usage shows a significant value ($p < 0.285$). Since the significant value of the t statistic is greater than 0.05 level of significance, we therefore accept the null hypothesis. Hence, we conclude that there is no significant relationship between employment status of small business operators and perceived profitability of online advertising usage. In this case, negative relationship may be largely attributable to employees position since they constituted more than half (62.6%) of respondents. We argue that this position might significantly deviate from employers perceptions on usage and business profitability.

Elliott and Boshoff (2007) indicate that the level of involvement of owner-managers, knowledge of owner-managers, and their marketing orientation are important factors for small businesses use of the Internet for marketing. However, Apulu and Latham (2009) contend that many SME owner-managers in Nigeria are not familiar with the conceptual basis and potential benefits of adopting ICT. Hence, such managers may not support ICT usage. However, the conclusion drawn in this study is that employment status as a demographic component integrated into

the E-VALUE model was not a moderator of perception of online advertising usage of small-scale businesses in Nigeria.

Ho₂: There is no significant relationship between gender of small business operators and perceived profitability of online advertising usage.

Table 4: Relationship between gender of small business operators and perceived profitability of usage of online advertising

	Gender		t	P value
	Male Mean ± SD	Female Mean ± SD		
Perceived profitability of usage of online advertising	3.96 ± 0.86	3.92 ± 0.92	0.315	0.753

Table 4 shows results of t statistic of a cross tabulation of gender and perceived profitability of online advertising usage is significant at ($p < 0.753$). Since the significant value of the t statistic is greater than 0.05 level of significance, the null hypothesis is hereby accepted. Therefore, we conclude that there is no significant relationship between gender of small business operators and perceived profitability of online advertising usage. However, descriptive analysis in Table 1 shows a higher percentage of male respondents than female, we may cautiously infer that small business operators who are males are more likely to use online advertising based on their perception on its impact on profitability than females. As a back-end integrated E-VALUE construct, gender failed to moderate usage and perception on profitability. This is consistent with pertinent studies, which found significant gender difference in creation of online videos and

roles, **played with video editing** which was in favour of males (e.g., Vedantham, 2011).

Ho₃: There is no relationship between age of small business operators and perceived profitability of online advertising usage

Table 4a: Relationship between age of respondents and perceived profitability of online advertising usage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.017 ^a	.000	-.004	.88917

a. P redictors: (Constant), Age
Table 4b ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regres Regression	.048	1	.048	.061	.806 ^b
1 Resid Residual	165.240	209	.791		
Total	165.288	210			

a.De a. Dependent Variable: Perceived profitability of online advertising usage

b. Pr b. Predictors: (Constant), Age

Table 4c Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.978	.166		23.988	.000
A 1 Age	-.029	.117	-.017	-.246	.806

a. a. Dependent Variable: Perceived profitability of online advertising usage

Results in Tables 4a-c of the t–statistic on the relationship of age of respondents and perceived profitability of usage has a

significant value of ($p < 0.806$). Since the p value is less than 0.05, we therefore accept the null hypothesis. While we considered age as an important factor of productivity as back-end integration of the E-VALUE model, the conclusion reached here is that there is no significant relationship between age of respondents and perception of profitability of online advertising usage. The nature and business outlook of respondents in this study may help explain this result. This deviates considerably from pertinent studies (Shen & Khalifa, 2010) who opine that the **fastest growing** demographic on Facebook consists of those 30 years old and older and with its immense popularity and open participation, it shows a greater potential of promoting advertising among others.

H₀₄: There is no significant relationship between age of small business and perceived profitability of online advertising usage

Table 5: Relationship between age of small business and perceived profitability of online advertising usage

	Age of business		t	P value
	Less than 5 years Mean ± SD	Above 5 years Mean ± SD		
Perceived profitability of online advertising usage	3.87 ± 0.92	3.99 ± 0.86	0.978	0.329

Results in Table 5 of the t statistic cross tabulation of age of business and perceived profitability of online advertising usage show significant value ($p < 0.329$). Since the significant value of the t statistic is greater than 0.05 level of significance, we accept the null hypothesis. We therefore conclude that there is no significant relationship between age of small business and perceived profitability of online advertising usage. This deviates from *results of* many past studies, which found positive

relationship between age of business and usage (see also van Brakel & Thompson, 2003; Eriksson, Hultman & Naldi, 2008). *The regional profile of respondents may be attributable to the contrasting results (Anderson & Eickelman, 1999).*

H₀: There is no significant relationship between length of internet usage and perceived profitability of online advertising usage

Table 6: Relationship between length of internet usage and perceived profitability of online advertising usage

Table 6a: Model Summary

Table 6a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.567 ^a	.322	.318	.73240

a. Predictors: (Constant), Usage

Table 6b ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regres Regression	53.179	1	53.179	99.141	.000 ^b
1 Resid Residual	112.108	209	.536		
Total	165.288	210			

a. De a. Dependent Variable: Perceived profitability of online advertising usage

b. Pr b. Predictors: (Constant), Usage

Table 6c Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.407	.162		14.860	.000
1 A Ag Usage	.563	.056	.567	9.957	.000

a. a. Dependent Variable: Perceived profitability of online advertising usage

The model summary in Tables 6a-c show that the correlation coefficient ($R=0.567$) indicates a positive strong linear relationship between perceived profitability of online advertising usage and length of internet usage. The coefficient of determination ($R^2=0.322$) indicates that less than half the variation in profitability is explained by length of Internet usage. The ANOVA table confirms an overall significance of the test. Since the significant value of the t -statistic in the coefficient table is less than 0.05 level of significance, the null hypothesis is hereby rejected and the alternative accepted. Therefore, there is a significant relationship between length of internet usage and perceived profitability of usage of online advertising. The regression coefficient ($B=0.563$) indicates a positive impact of length of internet usage as a back-end integration variable of the E-VALUE model on perceived profitability of usage. Many pertinent studies hold similar positions. For instance, Mohamed *et al* (2008) found experience to significantly moderate e-commerce usage and business performance. Rettie *et al* (2003) also found relationship between length of time, frequency of use and experience of Internet use.

Ho₆: The level of education of small business operators does not affect perceived profitability of online advertising usage

Table 7a: Effect of the level of education of small business operators on perceived profitability of online advertising usage

Table 7a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.227 ^a	.052	.047	.86603

a. Predictors: (Constant), Highest Educational Qualification

Table 7b ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regres Regression	8.534	1	8.534	11.379	.001 ^b
Resid 1 Residual	156.753	209	.750		
Total	165.288	210			

- a. De a. Dependent Variable: Perceived profitability of online advertising usage
 b. Pr b. Predictors: (Constant), Highest Educational Qualification

Table 7c Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.246	.214		15.159	.000
1 Ag Highest Edu Qualification	.208	.062	.227	3.373	.001

- a. a. Dependent Variable: Perceived profitability of online advertising usage**

The model summary in Tables 7a-c show that the correlation coefficient ($R=0.227$) indicates a positive strong linear relationship between perceived profitability of online advertising usage and level of education. The coefficient of determination ($R^2=0.052$) indicates that less than half the variation in profitability is explained by level of education. The ANOVA Table confirms an overall significance of the test. Since the significant value of the t–statistic in the coefficient table is less than 0.05 level of significance, the null hypothesis is hereby rejected and the alternative accepted. Therefore, the level of education of small

business operators' positively impacts perceived profitability of online advertising usage. This positive interaction between usage and education is perhaps, attributable to the fact that respondents were located in capital cities and are relatively literate to understand online advertising processes. This relates closely to 'experience' being a key demographic variable of the E-VALUE model. This position is consistent with Adekunle and Tella (2008) and Newman (2000) who found a positive relationship between education and learning to ecommerce adoption (see also **Poon *et al*, 1996; Reynolds *et al*, 1994**).

Discussion of Findings

This study found an uneven distribution of age with the 21-30 age range significantly constituting 70.6 per cent of respondents. This suggests a strong online presence of young adults who are likely to use Internet for advertising purposes (Shen and Khalifa, 2010). The number of males (58.8%) who run small businesses was significantly higher than females (41.2%). Contrary to findings in studies where employment status (Matlay & Addis, 2003; Mohamed *et al*, 2008; Reynolds *et al*, 1994), gender (McMahan *et al*, 2009; Vedantham, 2011) and age of business (Goldstuck 2012; Jagoda, 2010) correlates to usage, these variables were not significant moderators of online advertising usage in this study. More than half (75.9%) of respondents have post-secondary qualification, suggesting a relatively literate population. The implication is that these educated respondents stand a better chance at understanding and applying intricate Internet transactions. More than half (58.8%) of small businesses have existed for 5 years and above, while 41.2 percent businesses have existed for less than 5 years. Clearly, this contradicts that 80 percent of small businesses fail within the first five years (e.g.,

Chris-Aladum, 2013). The implication of this is that because small businesses in this study are relatively old, they might likely adopt online advertising due to their experience and resources (e.g., Goldstuck 2012).

Similarly, majority (60.2%) of respondents have used the internet for over 3years. The findings in this study are consistent with 'experience' being a core construct of the E-VALUE. As anticipated, length of Internet use moderated perceived profitability of online advertising usage. Studies have consistently linked experience (Goldstuck 2012; Mohamed *et al*, 2012) and frequency of Internet usage on adoption of ecommerce (Dholakia & Kshetri, 2004; Rettie *et al*, 2003; Rodgers & Sheldon, 2000). Consistent with the position of Chibelushi and Costello (2009), lack of awareness hinders SMEs from understanding the potential benefits of new technologies that that are capable of enhancing efficiency and profitability. However, Adekunle and Tella (2008) cautions that the relationship between experience, e-commerce adoption and business performance is not as simple as it seems.

The test of null hypotheses of usage and perceived profitability of four demographic constructs: employment status, age of business, age of respondents and gender (significant at 0.05) were accepted confirming insignificant relationships. In contrast, we found a positive and significant relationship between length of Internet use, level of education and small business operators' perception of profitability of online advertising usage. This confirms the impact of experience as a core tenet of the E-VALUE model in terms of value creation.

Conclusion

The paper set out to examine demographic moderators of online advertising usage of small businesses in relation to its impact on perceived profitability. Contrary to prior assumptions, we found a

significantly high level of online advertising usage among small businesses. To explore further, we adapted constructs of the E-VALUE and analysed the impact of demographic variables on perceived profitability. We found that educational level and length of Internet use positively affects perception of online advertising usage. In contrast, there was no significant relationship between age of business, age of respondents, age of business, gender, employment status and perceived profitability. In conclusion, this paper has demonstrated the relevance of adapting and testing the E-VALUE model within online advertising and small business research.

Limitations and Recommendations

As typical of most research, a number of limitations were experienced in course of this work. A major limitation was the paucity of empirical data on small-scale businesses' and particularly online advertising literature in Nigeria. Hence, the researchers were first compelled to use Vconnect's online directory to generate the population of small businesses.

Second, in spite of the fact the Internet usage is marked by regional profiling, most of the literature used in this study were on general SMEs Internet and e-commerce adoption in more developed economies.

In addition, in spite of the fact that respondents received assurances that the questionnaire was for academic purposes, a few declined to participate, while some provided unusable data, on the suspicion that the study was a disguise to gather taxation data for the government. This negatively affected the return rate of usable questionnaire.

Finally, this is a demographic and perceptions study; therefore, findings may not be used to imply actual profitability, since cost elements were not considered. We therefore recommend that future studies should integrate online advertising cost

variables to gauge actual business profitability. Despite these limitations, this paper through its conclusions has endeavoured to help increase understanding of small businesses and online advertising scholarship in this field of research.

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