

An Investigative Study of Travelers Perceptions on the Application of Information Technology in the Nigerian Road Transportation Sector

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ABSTRACT

The Transportation system in Nigeria has attained a high level especially the airline and road transportation sector. However, the Road transportation system has not been well established in comparison with its airline counterpart. As a result of rapid urbanization taking place in the country, travelers are becoming more sophisticated (especially the business class). The citizenry in general are gradually embracing the use of IT and IT based services in their daily lives. Consequently, the increase in the growth of the transportation sector in combination with several factors which hinder the citizens travel experience in Nigeria actuated the need for an alternative means which meets the demands of travelers whilst eliminating the problems. Thus, this study reports the results of a survey that was conducted, the research problem for this study has been formulated as follows: "What are travelers' needs and preferences when planning their journeys, and how familiar are travelers in Nigeria with the internet and e-travel services in general". Sequel to a detailed literature review which revealed some facts about the travel industry in Nigeria, an online survey targeted at travelers was launched using closed-ended questions. The established facts in this study are: the internet is a viable tool which is heavily used by travelers in Nigeria for seeking information irrespective of their level of income level. Many travelers have direct access to internet enabled personal computers or mobile internet enabled devices, would prefer using the internet for making travel plans including the purchase of tickets. The findings of this research showed that there is a need for a website where travelers in Nigeria can search for basic travel information and also compare offerings from different transport companies. In conclusion, the internet was found to be an effective communication channel to be used by travelers in Nigeria to enable them seek basic travel information needed and also plan their journeys effectively.

Keywords: Information technology, e-Travel, Nigerian road transportation, travelers

INTRODUCTION

The Internet has become the most effective world-wide communication channel. It is primarily the driving force behind the growth of e-business. The relatively low cost and accessibility of the Internet tends to bring all players online i.e. buyers and suppliers, businesses and consumers etc. This has resulted in a new business environment and new ways of doing business. The internet has also improved the speed to market for businesses whilst fostering innovation.

The travel industry is not left behind as the Internet and Information Technology (IT) have been used to improve customer satisfaction and business processes.

According to Werthner and Klein (1999) cited in (Stockdale and Borovicka, 2006), the travel industry was one of the early industries to adopt the use of information technology (IT) and

the industry players were fast in adopting the Internet as a tool for enhancing online sales and information dissemination. Stockdale and Borovicka (2006) further described the Internet as a powerful tool that has the capability of supporting the peculiar nature of the travel industry.

This paper investigates the issues travelers are facing in Nigeria with intent to provide a commercially viable IT based solution. The survey presented in this paper was carried out in order to gain more insight into the problems travelers face while planning their journeys and also to investigate if an internet-based solution in form of a website will be able to mitigate some of the issues. The research explores the scope of IT in creating an enabling and a suitable business environment in form of a website which would bridge the gap between the transport companies and independent traveller's whilst meeting real business needs.

TRANSPORTATION AND NATIONAL DEVELOPMENT

Transportation is a driving force behind the development and the well-being of all people around the world, as it contributes to the economic, industrial, social and cultural development of any country. A functional and integrated transport system in a nation would amongst other things:

1. Stimulate national development and enhance the quality of life of the people;
2. Enable markets to operate smoothly by aiding the seamless movement of goods and people from one place to another;
3. Aid social interactions and contacts
4. Link local, regional and international markets and also increase access to the markets thus promoting economic development which helps in the realization of a country's, comparative advantages (Draft National Transport Policy, 2010).

Therefore, the role of transportation in National development cannot be over emphasized like it has been observed in developed countries like the UK, Germany and the USA. The adoption of IT played a major role in making the transport system in these developed countries functional and integrated. More grounds however need to be covered in developing countries like Nigeria where the transportation system is facing a lot of problems. These problems hinder the citizens travel experience and also affect transport businesses around the country.

Stockdale and Borovicka (2006) have suggested that the travel industry players need to be more flexible in their approach with their customers and also find new ways of interacting with them. However, the current trend in the Nigerian transportation sector indicates that there is a wide gap between the travelers and the transport companies as sometimes, travelers need to physically visit the transport companies just to get the basic travel information they need. This has also resulted to lack of business communication for some of the transport companies in the Nigerian transportation sector.

THE ROLE OF INFORMATION TECHNOLOGY IN TRANSPORTATION

As a result of rapid urbanization taking place in the country, travelers are becoming more sophisticated (especially the business class). The citizenry in general are gradually embracing the use of IT and IT based services in their daily lives evident by the increase in the number of internet users and internet enabled devices in the country. Statistics has also shown a remarkable increase of 2,527.4% in the growth of Internet usage in Africa between 2000 and 2011 (Internet Worldstat, 2011). At the same time, people have the need to travel for either business or pleasure within the country irrespective of their income level or status. Therefore,

Nigerian people stand to benefit from a more unified and integrated road transportation system like it has been observed in other developed countries like the UK and Germany if some of the pressing issues are addressed. More importantly for people who might have more money to travel but not enough to buy a car. It has been recently argued that more people might travel via road if the road transportation system becomes well-coordinated and integrated like in the case of the UK travel industry where the bus services are very efficient. Statistics have shown that about 4.7 billion journeys were made by bus in Great Britain in 2005/06 (Office for National Statistics, 2011). The natural environment would also be impacted positively if more people travel via bus and switch from using their personal cars.

THE NIGERIAN ROAD TRANSPORTATION SECTOR

A major problem with the Nigerian road transportation sector is that it is highly unstructured and fragmented. The National Bureau of Statistics (2010) described the Nigerian road transport system as the most fragmented sector of the travel industry. The fragmented nature of the industry was attributed to the absence of any government agency coordinating road transport activities as in the case of the Nigerian Railway Corporation, Nigerian Ports Authority and the Federal Airports Authority of Nigeria. Some of key problems in the road transportation sector of the travel industry are as follows as:

1. Security Issues
2. Poor institutional framework which lead to poor coordination of urban transit services.
3. Inefficient public transportation system
4. Poor and ineffective transport management system.
5. Poorly maintained urban road network and road complementary facilities (Draft National Transport Policy, 2010).

Travel in Nigeria is problematic and painful for many and not every experience will be pleasant. This is because there are a lot of uncertainties with respect to travel especially travel via public transportation. These problems range from bad road conditions, lack of access to basic travel information, to inability to book for travel easily and conveniently. Williams (2008) described travel in Nigeria as stressful and frequently stalled by inconveniences and inefficiencies.

This is because the Nigerian travel industry, specifically the road transport system, is characterised by a large number of small scale operators of goods and passenger vehicles, many with a limited business and professional capacity (Draft National Transport Policy, 2010). Their activities and services are also highly uncoordinated which has resulted in inefficient services in the road transportation sector of the travel industry. Other problems associated with road transportation which are beyond the scope of this study includes: insecurity, traffic congestion, road accidents, poor environmental conditions, insufficient right of way, air pollution, environmental pollution, bad road conditions as a result of neglect of periodic and routine maintenance and host of other issues (Draft National Transport Policy, 2010; Lagos Metropolitan Area Transport Authority, 2010).

Nevertheless, majority of Nigerians travel via road because of the ever growing dependence on the road transportation system to meet virtually all the inland transportation needs. This overdependence is as a result of the deterioration on the other modes of transportation such as the railways and inland waterways (Draft National Transport Policy, 2010). A research in the area of urban transportation conducted by (Ogunbodede, 1990; Ogunjumo, 1986; Okpala,

1981; Mrakpor, 1986) as cited in Agunloye (2011), found that more than 75% of population in cities depended on public transportation system while others depend on private transportation.

When intending travelers get to the motor parks, they are often directed to the vehicle boarding for the particular route or destination of interest. The problem with this system is that the vehicles have to be filled to capacity before the driver can commence on any journey. This makes the waiting time for travelers unpredictable as it is subject to the number of passengers already in the vehicle as at the time a traveler gets to the motor park, and also how soon the remaining passengers turn up. This makes the transport management system ineffective. For the travelers, it could be very frustrating and painful as they could end up spending over five hours for a journey that should normally take three hours due to the unpredictable waiting time at the motor parks. Ogunbodede (2008) further described the long waiting time in garages as a serious issue that calls for immediate concern by all parties responsible. Another big problem with this arrangement is that travelers are sometimes intercepted by touts in the motor parks, as most public motor parks are breeding grounds for touts. This puts the travelers at the risk of losing their luggage and other valuable possessions, and also buying their tickets at a higher price. The reason why some travelers use this framework is because it does not require any advance booking which could be advantageous in case of an emergency travel. This advantage could however turn to a disadvantage as the waiting time in the motor parks is highly unpredictable and could turn out to be longer than the travel time, coupled with the insecurity in public motor parks. This has however shifted the attention of travelers to privately owned bus companies.

These privately owned bus companies who operate outside the public motor parks are a little more structured. Majority of them have offices with a large space to serve as loading points or private motor parks. This makes travelers feel more secured while in their premises and this places them high on the preference scale of travelers in Nigeria (Ogunbodede, 2008). Intending travelers however have to book or make reservations a day before the intending date of travelling. Therefore tickets are sold in advance prior to departure in their offices and passengers are advised about the departure time and the time they are expected to be at the loading points to board the buses. The setback however with this system is the booking arrangement whereby travelers have to visit the offices of the transport companies to book for their tickets a day before the travel date. This arrangement is not very convenient and could be problematic for some travelers who might be too busy to find time to go to the offices of the transport companies in order to make an advanced booking for a ticket. These are clear problems that need to be addressed.

RESEARCH METHOD

The qualitative research method was adopted for this study. According to Aaker et al. (2001), primary market research constitutes information that comes directly from potential customers which can be gathered via surveys, focus groups and personal interviews. An online survey approach was chosen for this study because it particularly suits this work as it helps to answer one of the research questions which relates to the level of IT adoption of the stakeholder. It however requires basic IT skills for the respondents to be able to participate.

RESULTS AND ANALYSIS

Sequel to the comprehensive secondary market research and an in-depth analysis of the existing environment in the Nigerian road transport sector, an online survey targeted at travelers in Nigeria was launched. The questionnaire was structured in a way that will aid the understanding of the people's familiarity with the internet and e-travel services in general. It

was also aimed at ascertaining travelers’ preferences when planning their journeys. The survey was open to answers for five weeks until a large number of participants had responded. The total responses received were 149 in which 147 were completed surveys and 2 were incomplete surveys.

FINDINGS AND DISCUSSION

6.04% (9) of the respondents are under the age of 25, 93.29% (139) are between the age bracket of 26-45, and 0.67 % (1) are between the age bracket of 46-60. Therefore, we infer from the result that the appropriate target market segment for Travelers should be those between the age bracket of 26-45 and those under the age of 25. Statistics has also shown that Internet use is closely linked with a number of socio-economic and demographic indicators such as age, occupation, qualification income etc. (Office for National Statistics, 2010). Also statistics from the Office for National Statistics (2010), shows that majority of people aged above 60 have never used the internet while the adoption of internet use is dominated by people aged between 16 and 54.

59.73% (89) of the respondents are currently Employed, 24.83% (37) of the respondents are Students. This is followed closely by 10.07% (15) respondents who are self employed. This result further shows the target market for travellers, as it shows the that this groups of people use the internet in their daily lives, and would be more familiar with e-travel services in general.

Figure 1 shows the income level distribution of the respondents. 11.41% (17) of the respondents are Very high income earners, 44.97% (67) of the respondents are high income earners. 16.11% (24) of the respondents are average income earners while 27.52% (41 respondents) are low income earners. This result shows that the internet is used by people irrespective of their level of income, as the result clearly shows the majority as high income earners, closely followed by the low income earners. This implies that the income level of travellers does not necessarily have any effect on their need to travel and also does not impact on their level of internet usage.

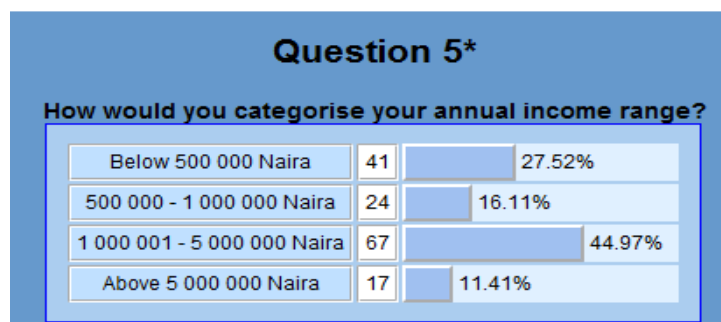


Figure 1. Categorisation of Respondent by Income Earned

Figure 2 below shows that people always have the need to travel via road all year round. Therefore the travel industry is not affected by seasonailty issues. 33% (49) of the respondents travel via road everyday while 12% (18) travel via road on a weekly bases. 19% (19) travel via road on a monthly bases, 25% (37) on a quarterly bases and 11% (16) on a yearly bases.

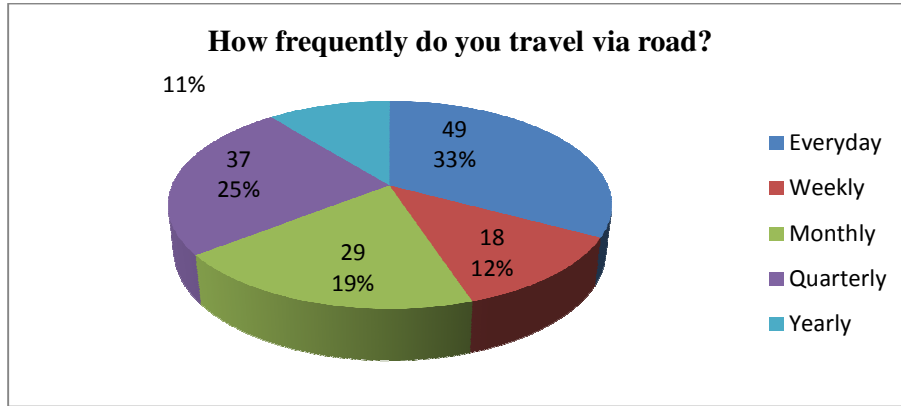


Figure 2. Categorisation of Respondent by frequency of travel.

Figure 3 below indicates that 93.96% which represents 140 respondents have direct access to an Internet enabled PC or other Internet enabled devices while 6.04% representing 9 respondents indicated that they do not have direct access to an Internet enabled device. The result clearly shows the level of IT adoption of the citizenry in Nigeria particularly the business class. An in-depth analysis of the type of device revealed that hand held devices such as Blackberry smart phones and mobile internet devices are amongst the most common types of internet-enabled devices used. Others includes both desktops and Laptop computers. Statistics has also shown a remarkable increase of 2,527.4% in the growth of Internet usage in Africa between 2000 and 2011 (Internet Worldstat, 2011). This also gives the assurance of a bright future for the proposed website as more people embrace the use of the internet particularly in e-travel services in Nigeria.

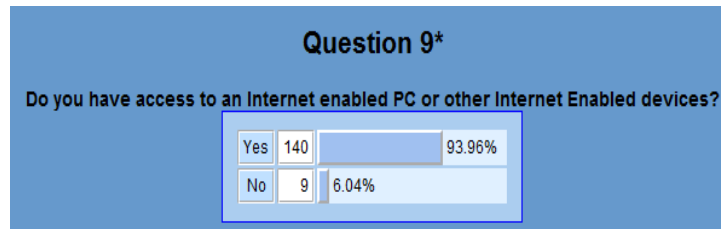


Figure 3. Categorization of Respondents based on Access to Internet

Majority of the respondents 24.09% (132) indicated that they use the internet to seek information amongst other things. This result also validates one of the purposes of the proposed website as it is intended to be a means for travellers to seek basic travel information in a efficient and effective manner. Thus this result validates the need for the service. This is also an indication that the proposed website will drive web traffic of visitors seeking travel information. This web traffic is very important in order to justify value for the advertisers on the website. Similarly, 41.15% (93) respondents indicated their use of the internet for payment for services including e-travel services. This result also shows the level of awareness of the travellers.

The results to questions 12 and 13 of the survey indicates how people usually search for information about transport companies and how they do purchase their tickets. 32.71% indicated the internet as the source of information. 63.91% of the respondents replied that they have to visit the transport company's offices and garage physically. This result shows the norm in the country. A fewer percentage indicated that they do get information via TV/Radio adverts, Magazines and Travel Agencies. 41.07% of the respondents replied they have to physically visit the offices and garages to book in advance and 44.18% of the

respondents who indicated purchase at the point of departure while 13.93% of the respondents use travel agencies.

98.66% (147) of the respondents indicated their preference for using the internet for their travel plans including the purchase of tickets as against 1.34% (2) who indicated otherwise as depicted in Figure 4 below. Some of their reasons for preferring to use the internet was that the use of the Internet could be easier, cheaper and stress-free. Others think it could be convenient if reliable and less time consuming. The respondents who indicated otherwise gave reasons such as security breaches and the fact that the internet connection could be very unstable in some locations in Nigeria, which could cause unsuccessful or incomplete transactions that might result in debits without remitting to merchant's account. Few respondents were of the opinion that it can be very disappointing if unreliable. These are some of the reasons highlighted by respondents in Question 15. These findings will help in the development of the website by incorporating some level of integrity on the website. This could translate to verification of the authenticity of the transport companies that gets registered on the website. On the issue of security on the internet, it would be of paramount importance to incorporate the right security features which are up-to-date for the users to be rest assured of their safety on the website.

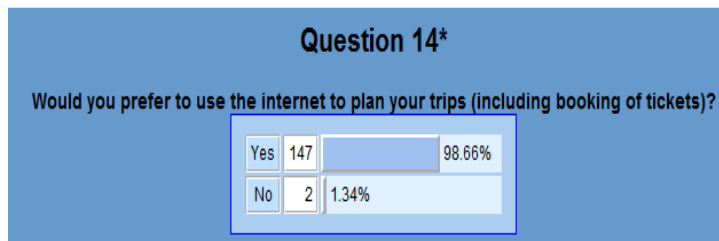


Figure 4. Respondents' preference with respect to using internet to plan trips

The findings also revealed that one of the greatest issues travellers have with employing the services of travel agents has to do with the high charges involved and the fact that they have to go there physically. 19.62% (41) of the respondents also indicated that agents do not always have the best offers. Other respondents indicated that their lack of control of the process is a major limiting factor as agents could sometimes delay or end up replanning their journey.

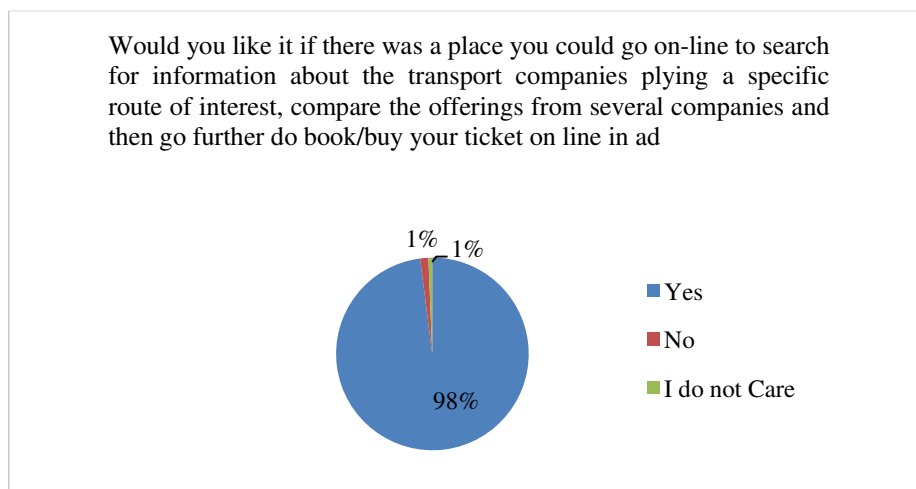


Figure 5. Respondents' perceptions of the proposed website

97.99% of the respondents indicated that they would like if there was a place they could go online to search for information about the transport companies, compare the offerings from different companies and then go further to book/buy their tickets online in advance as depicted in Figure 5.

Finally, the findings also showed that travellers will like to write reviews on the services offered by transport companies and share travel experiences with other travellers as 76.51% (114) respondents were of this opinion as depicted in Figure 6 below. This feature could be helpful to other travelers if made available on the proposed website.

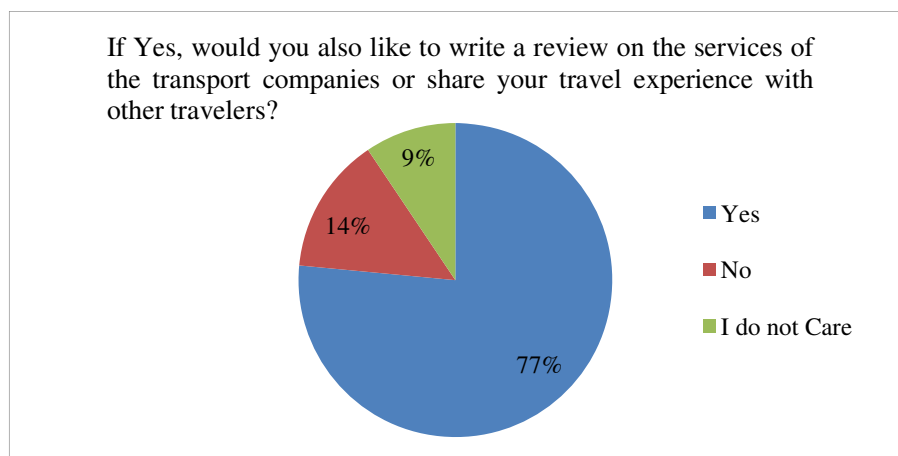


Figure 6. Respondents' perceptions on writing reviews

CONCLUSION

The internet was found to be an effective communication channel to be used by travelers in Nigeria to enable them seek basic travel information needed and also plan their journeys effectively. The study aided in establishing the target market for the proposed website to be people within the age bracket of 26-45 years old as this group were found to be the most active in using the internet and also familiar with e-travel services. The internet is to a great extent used by Nigerians for seeking information. This study revealed that there is a need for a website where travelers in Nigeria can search for basic information about transport companies and compare offerings from different transport companies. In future, we will use the information gathered from this study to develop the proposed website.

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