DESTINATION MANAGEMENT SYSTEMS AND TOURIST BEHAVIOR IN RIVER STATE

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ABSTRACT:

This research explores the relationship between Destination Management Systems (DMS) and tourist behavior in the context of Rivers State, Nigeria, utilizing a mixed research design. A stratified random sample of 500 tourists was surveyed, combining both primary and secondary data sources. Four Likert scale questionnaires were employed to gauge tourist perceptions of DMS features. Quantitative data analysis involved descriptive statistics and inferential techniques, with hypotheses examined using the Pearson Product-Moment Correlation (PPMC).The findings indicate a significant correlation between DMS variables, particularly information availability and transaction ease, and consumer behavior among tourists. This suggests that well-implemented DMS strategies positively influence tourist choices and activities. In conclusion, it is recommended that Rivers State adopts effective DMS strategies to enhance tourism viability and competitiveness. To address the issue of personalization, employing DMS experts to develop innovative solutions is crucial. By improving DMS functionality and personalization, Rivers State can better cater to the diverse preferences and needs of tourists, ultimately fostering a more satisfying and memorable tourist experience. This study contributes to the growing body of research on DMS and tourist behavior, providing valuable insights for destination managers and policymakers seeking to optimize their tourism offerings and attract a broader range of visitors to the region.

KEYWORDS:

Destination Management Systems, Tourist Behavior, Information Availability, Transaction Ease

Introduction

Tourism is a highly networked and information-intensive business, based on the world-wide cooperation of various types of local and international stakeholders (Buhalis 1998). Technology innovations have dramatically changed the way in which tourism organizations process, store, retrieve, and distribute business information through the development of information systems (IS) (Poon 1993; Sheldon 1997) and web-based applications. Horan and Frew (2007) defined destination management systems as systems that "consolidate and distribute a comprehensive range of tourism products through a variety of channels and platforms, generally catering for a specific region and supporting the activities of a destination management organization (DMO) within that region. A DMS is a technology-driven platform that aids in the strategic planning, development, and promotion of tourist destinations by centralizing information, resources, and communication channels (UNWTO, 2018). Destination Management Systems (DMS) are comprehensive software platforms designed to facilitate the efficient planning, coordination, and promotion of tourist destinations. They play a pivotal role in the tourism industry by integrating various aspects of destination management, including marketing, visitor information, logistics, and stakeholder collaboration. DMS systems are critical tools for destination marketing organizations (DMOs) and tourism authorities. The destination management systems innovations have provided tourists, tourist destinations, and tourist organizations with opportunities and new channels through which to empower their interaction processes while reducing search and distribution costs (Minghetti and Buhalis 2010). Destination management systems has reduced operating costs, improving business processes and providing tourism producers' information to present and sell their products, as well as to establish partnerships with carriers, tour operators, tourist destinations, and national tourism offices (UNWTO 2001).

Tourist behavior is a multifaceted and intriguing field of study that delves into the actions, choices, and preferences of individuals and groups when they engage in travel and tourism activities. Understanding tourist behavior is vital for various stakeholders in the tourism industry, including destination managers, marketers, and policymakers, as it provides insights into what motivates tourists, how they make decisions, and how they interact with destinations and services. Tourist behavior encompasses a wide spectrum of aspects, from the initial decision-making process of selecting a destination to the on-site experiences, satisfaction levels, and post-trip evaluations. It involves exploring the psychological, sociological, cultural, economic, and environmental factors that influence tourists' choices and actions. Understanding tourist behavior will help resort developers to tailor their offerings, marketing campaigns, and infrastructure development to better meet the needs and desires of travelers.

The challenge of limited personalization and customization in destination management systems (DMS) is pervasive across the tourism industry. DMS often struggle to provide tailored experiences to meet the diverse preferences of tourists. Common symptoms of this challenge include generic tourist recommendations, lack of real-time personalization, and a one-size-fits-all approach in DMS platforms. Tourists may receive generic itineraries, irrelevant promotions, and inadequate information about local attractions and services. This lack of personalization can result in a less satisfying travel experience. The criticality of this challenge is high, as personalization is increasingly expected by tourists. Failure to address this issue can lead to decreased visitor satisfaction, reduced repeat visits, and negative word-of-mouth. The consequences of inadequate personalization in DMS can impact destination competitiveness and revenue generation. Tourists may not fully engage with the destination, leading to missed opportunities for local businesses and a less enjoyable trip for visitors.

Aurelien and Herinandrianina (2014) in their study Determinants of Destination Management System (DMS) and CSFs Evaluation for Madagascar asserted that DMOs should put systems in place capable of improving destination experience that can stimulate tourist positive behavioral intention towards the destinationEstavao et al (2014) also in their study on Destination management systems: creation of value for visitors of tourism destinations posited that destination value is dependent on the response of tourists towards destroy nation systems they experienced. Shamine and Mae (2022) posited in their study on Destination management organization and tourist behavior intention in visiting attraction in the province of Camarines Sur those systems put in place to market a destination by DMOs impacts tourist behavioral intention

While there is existing research on both topics individually, there is a lack of in-depth studies that bridge these two areas. There is a need for research that explores how tourist behavior data can be effectively integrated into DMS to enhance personalization and customization. This involves developing models and algorithms that utilize tourist preferences, profiles, and behaviors to provide tailored recommendations and experiences. Hence, further research is required to assess the impact of improved personalization in DMS on tourist satisfaction, loyalty, and destination competitiveness. This would involve longitudinal studies and analysis of real-world implementations. Therefore the core aim of this study is to evaluate the role of DMS in shaping tourists behavior.

Theoretical/Literature Review

Tourist Experience Theory, rooted in the field of tourism studies, focuses on understanding the multifaceted aspects of tourists' encounters with destinations. Scholars like Pine and Gilmore (1999) introduced the concept of the "experience economy," emphasizing that tourists seek memorable and meaningful experiences beyond mere products or services. This theory acknowledges that the quality of these experiences significantly influences tourist behavior and satisfaction. In the context of a study on Destination Management Systems (DMS) and tourist behavior, Tourist Experience Theory plays a pivotal role in enhancing Personalization. Tourist Experience Theory highlights the importance of tailoring experiences to individual preferences (Pine & Gilmore, 1999). When integrated with DMS, this theory guides the development of personalized recommendations and itineraries, aligning DMS offerings with the desire for unique and meaningful experiences (Xiang &Gretzel, 2010). It also aid in understanding tourist experiences aids in predicting behavior. DMS can leverage this knowledge to anticipate tourists' interests and needs, thereby enhancing user engagement and satisfaction (Buhalis&Amaranggana, 2014).

Concept of DMS

Destination management systems are emerging as a notable solution for DMOs that are in charge of managing tourist destinations, which are "some of the most difficult entities to manage and market due to the complexity of the relationships among local stakeholders. Valeri and Baggio (2020) assert that the way information and knowledge are spread among all stakeholders in a destination is one of the factors that has the greatest influence on tourism development. Information technology even has a great impact on possible competitive advantages that a destination can have and on how actions are planned (Valeri and Baggio, 2020). In this case, the destination information system supports DMOS to perform their day-to-day operations more actively, efficiently, and effectively by integrating all information about the resources, products, and services of the destination in one place (Inter-American Development Bank-IADB, 2014).

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Information Availability

Understanding how customers acquire information is important for marketing management decisions. This is especially true for services, travel and tourism products. Research has demonstrated that tourist information is a valuable concept in understanding destination image and the destination choice process of tourists. Information availability and sources have been included in many research works as important factors for the analysis of tourist behavior

The information availability is one of the exciting and innovative information hub facilitating interactive marketing. Kinnard (2000) defines information availability in marketing application as a marketing tool used in conveying marketing communication to recipients who primarily request it, while Roberts and Berger (1999) define information availability as an information-focused interpersonal marketing practice that takes place in a context of accountability for the privacy of the tourists. These definitions show a clear difference between permission-based, focused information availability usage and spontaneous, untargeted mass mailings.

Information availability and source as a product is increasingly being recognized by business organizations as a cost-effective information bank where clients can easily make inquiry and make purchase of products and services. Forrester (Niall 2000) describes information availability and transaction ease as information source as one of the most effective online marketing tools, and this is attributed to its capacity to yield and amass a high response rate, and the scholar expects information availability marketing to be worth 11 billion US dollars by 2022. eMarketer (2008) estimated that 61% of all medium and large US companies make their information accessible on the net. Jupiter (Pastore 2001) predicted that spending on digital marketing initiatives such as information availability advertising, coupons, promotions and e-mail will surpass that of traditional advertising. information availability marketing involves transmitting product information via the information availability to existing and potential Tourists. information availability marketing involves the use of email and online promotional sites to send advertisements and requests for sales while building trust and loyalty with current Tourists to encourage repeat business and also acquire new tourists

Ease of Transaction

The tourism industry no doubt has witnessed advancement in technology just like any other sector; the adoption of electronic service is one of these as it affects tourism operations entirely (Adewoye, 2013). The importance of electronic services in the 21st century cannot be over emphasized because its introduction has given business opportunity to accomplish greater destination visibility and patronage since tourism product purchase and transactions would be carried out through communication network which makes it faster even as distance would no longer be a barrier to effective transaction (Fagbuyi, 2003).In service industry such as tourism and hospitality, customers

are always looking for ease in purchasing products or service due to time and budget constraints. Thus, some customers are no longer buying products in the on-sight as they can now transact online because of added values online shopping brings. It is more convenient and time saving for tourists thus encouraging DMOs to move to online virtual stores which help to strengthen tourist relationship (Seiders, Berry & Gresham, 2000).

Ease of transaction is simply concerned with the provision of quality service to tourists. Tourism service providers' ability to render a more quality services to their customers would definitely be evidenced in their customer base as every customer would want a quality service. Obviously, one of the factors that separate competitors (destinations) from other destination in the tourism industry is their level and quality of services delivery which includes; waiting ease, access ease, transaction ease, benefit ease and non-monetary cost. This is because ease of transaction may determine the level of tourist product consumption and consequently the tourists base of any tourists site. Ease of transaction in relation to tourism service delivery is the tourist's evaluation of the service in terms of whether that service met their needs and expectation (Babatunde and Kemi, 2011).

Tourist Behavior

Consumer behaviour refers to the way in which customers behave according to their attitudes before, during and after using a product or service. Consumers are subject to certain behaviour before, during and after travelling. This is conceptualized as travel behaviour. This behaviour is the direct result of interaction between certain personal and service variables on a continuous basis. Notice is given to influence people and situations on both sides and they react according to these influence. Customer behaviour can therefore be defined as the way consumers behave according to their attitudes towards a certain product and their response by making use of the product (March & Woodside, 2005; George, 2004).

March and Woodside (2005) stated that specific decisions embraces one or more of the behavioral intentions based on the need to behave in a certain way according to highly defined situations. In order to predict customer behaviour it is important to understand how individual characteristics of a person interact with the characteristics of the situation, therefore understanding the positive and negative evaluative factors influencing purchasing choices of the customers (March & Woodside, 2006).

Various researchers have identified factors influencing customer behavior of consumers such as variables motivating the consumers to buy, attitude of the consumers, various situational factors and service delivery factors which influence the personal significance of the consumers (Venkatesh, 2006; Laws, 1995). According to Gartner (as cited by Pike, 2008) motivation initiate the decision-making process. This occurs when a certain need or want cannot be met at home. Motivations surface when a tourist wants to satisfy a need or want and this can be seen as a very important variable in relation to their customer's decisions and the outcome of satisfaction (Chang, 2007; Correia, Oom do Valle &Moço, 2006).

Empirical Review

Information Availability and Tourist Behavior

A study by Johnston and Jonhson (2002) showcased the potential of the adoption of DMS in the South African tourism industry, and the findings showed that information availability has changed the way tourism products are purchased. The study took into account 20 tourist destinations and had 300 respondents. The study used multiple regressions in testing the relationship between the study variables.

In a separate study by Newman and Werbel (2011), they further strengthened the findings of Johnston and Johnson and posited that availability of tourism information on the web environment can empower consumers on three levels: firstly, to make informed purchases as independent reports are now more accessible to them; secondly, to 'join forces' with other tourists and exchange opinions or experiences with consumers from around the world, thus enabling e-word-of-mouth communication at unprecedented levels. This is in line with an earlier study by Choy and Chu (2001) and Johnston and Jones (2004) of banks in Switzerland, who posited that the availability of information in the banking sector in the country has improved the patronage.

Carman (1970) conducted a consumer behavior study on a few select electronic firms; the findings revealed that tourists are loyal to any organization that provides useful information during decision making. Today, tourists require that information should be made available via the information availability, mobile phones, and PDA technology (Luck & Lancaster, 2003).

Zografos and Madas (2002) investigated travel & tourism information system providing real-time, value-added logistical services on the move. The study adopted a cross-sectional survey method and data was generated through a structured questionnaire which was administered to 210 participants. The findings of the study revealed that tourists in particular expect information should be made available to them in a timely and accurate manner.

Ease of Transaction and Tourist Behavior

Confidence (2020) conducted a study on transaction convenience and customer patronage of deposit money banks in Port Harcourt. Data were collected through questionnaire from 91 sampled respondents. The hypotheses were tested with Spearman's rank correlation coefficient with the aid of SPSS, statistical software. It was found that there is a significant relationship between transaction ease and customer patronage.

Bayona and Rua (n.d) in an article examined the importance of online payment on travel and tourism incomes. The article performed a cross-country panel data study to analyze how ease of transaction influences the international travel and tourism patronage. The results show that transaction convenience/ease attracts international tourism and increases tourism patronage

Nizar (2016) investigated convenience store attributes in influencing customers' patronage intention. The researcher was interested to identify what are the most factors that influence consumers' to shop at convenience store. In order to get the information from customers, the researcher had distributed questionnaires randomly to 100 respondents by using questionnaire and online questionnaire. The online questionnaires were distributed through Whatsapp mobile application and also email. Then, the

researcher further analyzed all the data by using Statistical Package for Social Science (SPSS) computer software. All the data were interpreted in the study and ease of transaction was revealed to have a significant influence on patronage of petrol station

Aryasri (2009) examined determinants of shopper behavior in e-tailing: an empirical analysis. The study is purely based on primary data collected from a sample of 135 respondents by using simple random sampling technique from five leading software companies in Hyderabad. Necessary secondary data were used to reinforce the model. A structured non-disguised questionnaire was administered and responses were measured on the seven-point Likert scale. Statistical tools like mean, standard deviation, multiple correlations, multiple regressions, student I-test, and ANOVA were used to find out the strength of relationship and degree of association among the variables entered into the model. The results reveal that transaction convenience, web store environment, online shopping enjoyment, and customer service have significant impact on the willingness to buy from online retail stores and referral intention rather than perceived trust. Except trust and customer service, all other variables are significant with patronage of online retail stores.

Owuso and Ebenuwa (2022) studied transaction convenience and satisfaction of customers of independent petroleum product marketers in Port Harcourt. The study adopted a cross-sectional survey. The population of the study comprised 450 registered independent petroleum marketers in Delta state. A sample size of 212 was determined using the Taro Yamane formula. Primary data was collected using a questionnaire, while data analysis was done using Spearman's Rank Order correlation. The study found that transaction convenience relates to satisfaction of customers of independent petroleum product marketers in Port Harcourt.

Methodology

This study employs a mixed-methods research design, combining both qualitative and quantitative approaches to provide a comprehensive understanding of the relationship between Destination Management Systems (DMS) and tourist behavior (Creswell & Creswell, 2017). The research focuses on tourists visiting three popular destinations in the Rivers state representing a diverse sample of urban and cultural tourism experiences (Saunders, Lewis, & Thornhill, 2019). A sample size of 500 tourists is selected using stratified random sampling, ensuring representation from different demographic groups and travel motivations (Bryman & Bell, 2015). Both primary and secondary data are utilized. Primary data includes surveys and interviews with tourists, while secondary data comprises existing information on destination-specific DMS and tourism trends (Easterby-Smith et al., 2015). Surveys are conducted using a Likert scale questionnaire, measuring tourists' perceptions and experiences with DMS features (1 = Strongly Disagree, 5 = Strongly Agree) (Hair et al., 2018). Interviews provide in-depth qualitative insights into individual behaviors and preferences (Silverman, 2017). Quantitative data are analyzed using descriptive statistics and inferential techniques like regression analysis to identify relationships between DMS utilization and tourist behavior (Field, 2013). Hypotheses will be analyzed using Pearson's product moment correlation (Braun & Clarke, 2006).

Analysis and Discussion of Findings

Correlations analysis on the Relationship between Information Availability and Tourist Behavior

		Information Availability	Tourist Behavior
Information Availability	Pearson Correlation	1.000	.857**
	Sig. (2tailed)	.	.001
	N	126	126
Tourist Behavior	Pearson Correlation	.857**	1.000
	Sig. (2-tailed)	.001	.
	N	126	126

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Computation Output 2023

Information availability and referral

Rho = 0.857

P-value = 0.001 (p<0.05)

Where * illustrates significance at 0.05 and **illustrates significance at 0.001.

Interpretation Based on Decision Rule

Since the p-value or "r" calculated (0.001) is less than the level of significance or "r" tabulated (0.05), we reject the null hypothesis and accept the alternative thereby concluding that there is a significant relationship between information availability and referral. However, the result showed a strong positive relationship of 0.852.

The finding established a significant correlation between information availability and referral after statistical analysis was conducted through PPMC with the aid of SPSS, hence the null hypothesis was rejected which informed the acceptance of the alternate hypothesis which states that a clear cut relationship exists between information availability and referral with r^2 determination coefficient value of .857 which translated to 73% which implies that other factors that can influence tourists behavior through information availability is 37%. The findings is in line with the findings of Carman (1970) conducted who posted that tourists are loyal to any organization that provides a useful information during decision making. The finding also gave more flesh to the findings of Zografos and Madas (2002) who asserted that tourists in particular expect information should be made available to them in a timely and accurate manner.

Correlationsanalysis on the Relationship between Transaction Ease and Tourist Behavior

		Transaction Ease	Tourist Behavior
Transaction ease	Pearson Correlation	1.000	.788**
	Sig. (2tailed)	.	.001
	N	126	126
Tourist Behavior	Pearson Correlation	.788**	1.000
	Sig. (2-tailed)	.001	.
	N	126	126

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Computation Output 2018

Transaction ease andtourist Behavior

Rho = 0.788

P-value = 0.001 (p<0.05)

Where * illustrates significance at 0.05 and **illustrates significance at 0.001.

Interpretation Based on Decision Rule

Since the p-value or "r" calculated (0.001) is less than the level of significance or "r" tabulated (0.05), we reject the null hypothesis and accept the alternative thereby concluding that there is a significant relationship between transaction ease and Patronage. However, the result showed a strong positive relationship of 0.788.

The hypothesis sought to investigate the relationship between transaction ease and tourist behavior. This was subjected to statistical analysis for investigation and it turned out positive with an r^2 coefficient determination value of .788 which suggested a positive relationship implying that 62% of tourist behavior could be determined by how easy they were able to complete their transactions while leaving 38% to other actors. This finding supports the arguments made by Confidence (2020) who posited that there is a significant relationship between transaction ease and customer patronage. The study also is in tandem with the finding of Adenekan (2021) whose study revealed that e-retail outlets can easily achieve e-patronage of customers by providing e-transaction ease. Also, Alternative Attractiveness was a quasi-moderator in the relationship between e-service ease and customer loyalty.

Conclusion and Recommendation

In conclusion, the researcher urged tourist's sites in Rivers state to adopt DMS elements so as to improve their brand image which have a significant effect on tourist behavior. The tourism industry is innovating everyday due to the level of competition and this is due to the multiplicity of brands available to customers. In other to survive this brand war and be well positioned, tourist sites will have to embrace the advancements in digital advancements as this will aid destination viability. From the research analysis and conclusions above, the following recommendations were made to enhance the activities of hospitality firms:

i. Management should employ DMS experts who will come up with strategic innovations to solve the challenge of personalization and customization.

ii. DMOs should adapt to the use of transaction ease and every other digital tool in advancing their destinations

iii. Management should invest in the use of tech innovations that ensure convenience for their tourists

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