

## Original Research Article

# Voice Search Technology and Consumer Buying Behaviour of Smart Phones in Port Harcourt

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**Abstract:** This study investigated the relationship between voice search technology and consumer buying behaviour of smartphones in Port Harcourt. Specifically, the objectives of the study were to determine how voice recognition accuracy and user experience relates to routine and impulse purchase behaviour of smartphones in Port Harcourt. The population of this study comprised of twenty-two registered mobile phone dealers in Port Harcourt. The census approach was adopted to choose the respondents for this study. To generate data for the study, researcher purposively distributed the copies of questionnaire in the frame of three (3) copies to each mobile phone firm. A total of sixty-six (66) respondents were used as the study subjects, however only fifty-eight (58) respondents provided data for the analysis. From results of the analysis it was revealed that voice recognition accuracy and user experience which are the dimensions of voice search technology positively and significantly relate with routine buying behaviour and impulse buying behaviour (measures of consumer buying behaviour). Therefore, the study concludes that the impact of voice search technology on consumer buying behavior of smartphones in Port Harcourt reveals significant correlations between the dimensions of voice search technology—voice recognition accuracy and user experience—and different buying behaviors. Furthermore, the study recommended that amongst others that Smartphone dealers should invest in advanced voice recognition technology to ensure high accuracy in voice commands. This will enhance consumer satisfaction and potentially increase both routine and impulse purchases.

**Keywords:** Voice Search Technology; Consumer Buying Behaviour; Voice Recognition; User Experience; Routine Buying; Impulse Buying.

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## INTRODUCTION

Voice search technology has become a growing force in the way consumers interact with digital platforms, and its influence on purchasing decisions is increasingly evident in the smartphone market. With the rise of virtual assistants like Siri, Google Assistant, and Alexa, voice search has simplified information retrieval and provided a hands-free experience, which is particularly appealing for smartphone users. This technological shift is reshaping consumer behavior, especially in urban areas like Port Harcourt, where smartphone adoption continues to rise at a rapid pace (Nguyen, 2023). The convenience and efficiency of voice search make it easier for consumers to find products and services, which in turn influences their purchasing patterns.

Recent studies highlight that consumers are leaning toward smartphones with robust voice search

capabilities, as it enhances their overall user experience and makes navigation easier. According to Okoro (2023), the integration of artificial intelligence (AI) in voice search systems has significantly improved accuracy, leading to more reliable results and fostering greater trust in the technology. In Port Harcourt, where technological awareness is growing, there is an observable shift in how consumers research and purchase smartphones. This shift is influenced by the level of sophistication in voice search features, indicating that consumers are increasingly valuing this aspect in their buying decisions (Udoh, 2023).

Furthermore, the ease of use provided by voice search technology not only affects consumer behavior but also impacts how smartphone brands position themselves in the market. Companies are beginning to tailor their marketing strategies to highlight voice search capabilities, recognizing its role in shaping consumer

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preferences. As voice technology continues to evolve, it is expected that smartphones offering superior voice search functions will gain a competitive edge. According to a survey conducted by Adamu and Williams (2023), 65% of smartphone users in urban regions like Port Harcourt consider voice search an essential feature, influencing their final purchase decision. This underscores the growing importance of understanding how this technology shapes consumer buying patterns.

Given the increasing reliance on voice search among smartphone users in Port Harcourt, it is crucial to explore the relationship between this technology and consumer behavior. Understanding this dynamic will not only provide insights for smartphone manufacturers but also for marketers aiming to tap into consumer preferences more effectively. By examining this relationship, the study seeks to contribute to the growing body of knowledge on digital consumer behavior in Nigeria’s evolving technological landscape.

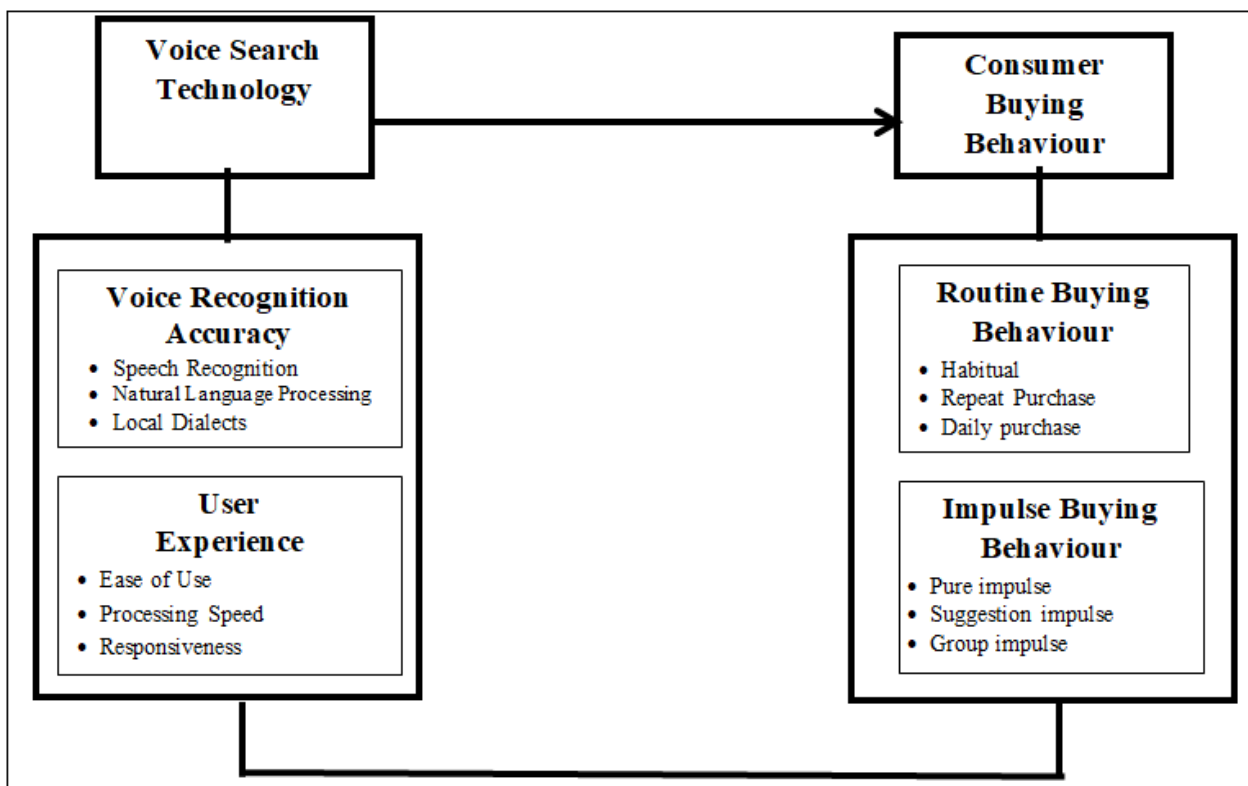
**Statement of the Problem**

The rise of voice search technology has reshaped consumer interaction with smartphones, influencing their buying decisions in significant ways. However, despite its growing adoption, there is limited research on how this technological shift specifically impacts consumer behavior in emerging markets like Port Harcourt, Nigeria. While voice search has been

widely embraced in developed markets, its integration into consumer habits in Port Harcourt remains underexplored, leaving a gap in understanding how local consumers perceive and utilize this feature when making smartphone purchase decisions. Without a clear grasp of how voice search affects buying behavior in this region, smartphone manufacturers and marketers may be missing critical insights that could enhance product development and marketing strategies tailored to local needs.

Moreover, as smartphone penetration increases in Port Harcourt, it becomes essential to investigate whether voice search technology is a decisive factor in consumer choices, or if it is overshadowed by other considerations like price, brand reputation, or functionality. The lack of focused studies on the relationship between voice search technology and consumer buying behavior in this region creates an information vacuum that could hinder businesses from fully leveraging the potential of this technology to influence purchasing decisions. Addressing this gap is crucial for understanding the full scope of how voice search adoption is shaping consumer behavior and guiding the strategic direction of smartphone brands operating in Port Harcourt.

**Conceptual Framework**



**Figure 1: Conceptual framework showing the relationship between voice search technology and consumer buying behavior of smart phones in Port Harcourt**  
 Source: Okoro (2023); Johnson et al., (2023)

### Research Aim and Objectives

The aim of this paper was to examine the relationship between voice search technology and consumer buying behavior of smartphones in Port Harcourt. Specifically, the objectives of this paper were to:

1. Determine the relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt.
2. Assess the relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt.
3. Examine the relationship between user experience and routine buying behavior of smartphones in Port Harcourt.
4. Analyze the relationship between user experience and impulse buying behavior of smartphones in Port Harcourt.

### Research Questions

The following research questions guided this paper:

1. What is the relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt?
2. What is the relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt?
3. What is the relationship between user experience and routine buying behavior of smartphones in Port Harcourt?
4. What is the relationship between user experience and impulse buying behavior of smartphones in Port Harcourt?

### Research Hypotheses

The following null hypotheses was tested using 0.05 as a threshold:

- H<sub>01</sub>: There is no significant relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt.
- H<sub>02</sub>: There is no significant relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt.
- H<sub>03</sub>: There is no significant relationship between user experience and routine buying behavior of smartphones in Port Harcourt.
- H<sub>04</sub>: There is no significant relationship between user experience and impulse buying behavior of smartphones in Port Harcourt.

### Theoretical Foundation

This paper was anchored on technology acceptance model (TAM).

### Technology Acceptance Model (TAM)

A theoretical framework that describes how consumers learn to accept and utilize technology was established by Davis (1989) and is known as the Technology Acceptance Model (TAM). Perceived utility (PU) and perceived ease of use (PEOU) are two primary

aspects that impact the adoption of new technologies, according to TAM. A technology's perceived utility is the extent to which its user thinks it will improve their work performance, and a user's expectations of the technology's ease of use are related to how easy they think the technology will be to use. When people see a technology as useful and simple to use, the model predicts that they will be more inclined to embrace it. Mobile technologies, internet platforms, and communication devices are just a few of the many technical settings that have seen extensive use of TAM throughout the years (Venkatesh & Davis, 2000).

The relevance of TAM to the study of voice search technology and consumer buying behavior in smartphones in Port Harcourt lies in its ability to explain why and how consumers adopt voice search as a feature when purchasing smartphones. Voice search technology, driven by artificial intelligence, offers convenience and hands-free navigation, aligning with the perceived usefulness and ease of use principles outlined in TAM. As smartphone users in Port Harcourt become more familiar with voice search and recognize its advantages—such as quicker access to information and multitasking efficiency—they are likely to consider this feature when making purchasing decisions. Understanding how these perceptions influence consumer behavior will help smartphone brands and marketers in Port Harcourt craft strategies that highlight the value and simplicity of voice search technology, thereby increasing its adoption and shaping buying patterns (Ajibade, 2023).

### Concept of Voice Search Technology

Voice search technology refers to the use of spoken language to perform searches or execute commands on digital devices, such as smartphones, tablets, and smart speakers, rather than typing text queries. Voice search, which is backed by AI and NLP, lets people give instructions to their devices, making it more natural and intuitive for them to use. With the rise of virtual assistants such as Google Assistant, Siri from Apple, and Alexa from Amazon, this technology has advanced significantly. These assistants enable users to do things like make calls, send messages, and manage smart home devices just by speaking to them (Shah & Singh, 2023). The accuracy and convenience offered by voice search have significantly enhanced user experience, especially as AI systems have become better at understanding context, accents, and languages.

Voice search is gaining traction due to its ability to save time and provide hands-free convenience, which is particularly useful in scenarios where manual input may be cumbersome, such as while driving or multitasking. Recent studies show that consumers are increasingly adopting voice search as it improves accessibility, reduces typing efforts, and offers personalized experiences by learning from past interactions (Wang, 2023). In the smartphone industry,

voice search has become a key feature that influences consumer preferences, as many users now expect their devices to offer seamless integration of this technology. The growing popularity of voice search technology is pushing smartphone manufacturers to innovate and improve voice-activated systems, making it a critical factor in driving user engagement and purchase decisions (Chaudhary & Patel, 2023).

## **Dimensions of Voice Search Technology**

### **Voice Recognition Accuracy**

Voice recognition accuracy refers to the ability of a voice-enabled system to correctly interpret and process spoken language, converting it into a corresponding text or command with minimal errors. This accuracy is crucial for ensuring the effectiveness of voice search technology and other voice-activated applications. Factors such as background noise, speech patterns, accents, and language complexities all influence voice recognition accuracy. Modern voice recognition systems leverage advanced machine learning algorithms, neural networks, and natural language processing (NLP) to enhance their accuracy by continuously learning from user inputs and improving over time (Zhou & Wang, 2023). However, achieving near-perfect accuracy remains challenging, especially in environments with diverse linguistic nuances or noisy conditions, which can hinder the system's ability to interpret speech correctly.

The significance of voice recognition accuracy in voice search technology is growing, as users increasingly rely on this feature for everyday tasks. Studies indicate that users tend to abandon or distrust voice-based systems if they experience frequent misinterpretations or errors in recognizing their commands (Li & Chen, 2023). As a result, companies are investing in improving voice recognition accuracy by incorporating features such as context awareness, personalized learning, and enhanced noise-canceling algorithms. In the smartphone market, devices that offer higher voice recognition accuracy are more likely to attract consumers, as they provide a smoother and more reliable user experience. This makes voice recognition accuracy a key factor in the adoption of voice search technology, influencing consumer satisfaction and loyalty (Smith & Patel, 2023).

### **User Experience**

User experience (UX) refers to the overall experience a person has when interacting with a product, system, or service, encompassing aspects such as ease of use, accessibility, design, and satisfaction. In the digital world, UX is crucial in shaping how users perceive and engage with technology. A well-designed user experience ensures that the interface is intuitive, responsive, and aligns with the user's needs, making interactions seamless and enjoyable. Key elements of UX include usability, functionality, aesthetics, and the emotional response users have during and after

interacting with a system (Norman & Nielsen, 2023). Companies prioritize UX to enhance customer satisfaction and foster loyalty, especially in industries like mobile technology, where user expectations are high.

In the context of voice search technology, user experience plays a pivotal role in determining adoption and continued use. A positive UX ensures that users find the technology easy to navigate, with accurate voice recognition and a natural flow of interaction. Studies have shown that if voice search systems are clunky or fail to provide accurate results, users may become frustrated and avoid using the feature in the future (Wang & Huang, 2023). Therefore, improving UX by focusing on aspects like voice recognition accuracy, response speed, and personalized results is essential for ensuring that users enjoy a seamless and engaging experience. In the competitive smartphone market, brands that deliver superior UX in their voice search functions are more likely to attract and retain users, influencing their buying behavior (Chen & Li, 2023).

### **Concept of Consumer Buying Behaviour**

What we call "consumer buying behavior" encompasses all the steps people take before, during, and after deciding to purchase anything. Psychological, societal, cultural, and individual variables all play a role in shaping this conduct. Key elements of consumer buying behavior include how consumers gather information about products, their evaluation of alternatives, and the factors driving their final purchase decisions. Modern consumers are also influenced by digital trends, online reviews, and personalized recommendations, which shape their preferences and choices (Kumar & Singh, 2023). Businesses can't afford to ignore these trends if they want to keep up with their customers' ever-changing marketing needs.

Factors such as pricing, brand reputation, technical features, and simplicity of use influence customer purchasing behavior when it comes to smartphones. With the rise of voice search technology, this feature has also started to influence how consumers perceive and select smartphones. Recent studies suggest that consumers are increasingly factoring in the integration of voice search capabilities as a key feature when choosing a smartphone, as it enhances their overall user experience and simplifies day-to-day tasks (Chaudhary & Patel, 2023). By examining consumer buying behavior in relation to voice search, businesses can better understand the priorities of their audience and adjust their product offerings and marketing campaigns to align with consumer preferences.

### **Measures of Consumer Buying Behaviour**

#### **Routine Buying Behaviour**

Routine buying behavior refers to the purchasing patterns and decisions that consumers make for frequently purchased, low-cost items that require

minimal thought or deliberation. This behavior is characterized by habitual buying of products that consumers are familiar with and have established preferences for, often due to convenience and brand loyalty. Routine buying decisions are typically automatic and involve minimal cognitive effort, as these products are perceived as necessary and are purchased regularly without much consideration of alternatives (Jiang & Zhao, 2023). For example, everyday items like groceries or household supplies often fall into this category, where consumers rely on established brands and make quick purchase decisions based on past experiences.

In the context of smartphones and voice search technology, routine buying behavior can influence how consumers integrate new features into their purchasing habits. While high-cost items like smartphones may not fit the traditional definition of routine purchases, consumers may develop routine buying behaviors when it comes to choosing certain features or brands they are accustomed to. Recent research indicates that consumers who regularly use voice search technology may prefer smartphones that offer enhanced voice capabilities as a standard feature, reflecting their habitual reliance on this technology for convenience (Smith & Brown, 2023). Understanding these patterns helps manufacturers and marketers anticipate consumer preferences and tailor their offerings to align with established buying behaviors, ultimately influencing purchase decisions in a competitive market.

### **Impulse Buying Behaviour**

Consumers engage in impulse buying when they make a purchase without giving it much thought, usually in reaction to an emotional response or the need for instant satisfaction rather than a deliberate necessity. Impulse buys happen when customers see something they want and decide to buy them without giving them much thought. This kind of purchasing is commonly prompted by ads, shop displays, or sales (Kumar & Sinha, 2023). Impulse buying is typically associated with items that are not considered essential or are bought on a whim, reflecting a lack of prior intention or consideration in the buying process.

In the context of smartphones and voice search technology, impulse buying behavior can be significantly impacted by features that enhance user experience and convenience. For instance, promotional campaigns highlighting advanced voice search capabilities or limited-time offers can trigger impulse purchases among consumers who are enticed by the novelty or perceived benefits of these features (Lee & Chan, 2023). The appeal of having cutting-edge technology or the immediate satisfaction of acquiring a new gadget can lead to spontaneous buying decisions, demonstrating how emotional and situational factors can drive consumer behavior beyond planned or routine purchases. Understanding these dynamics helps businesses design effective marketing strategies that

capitalize on impulse buying tendencies, ultimately influencing consumer decisions in a competitive market.

### **Empirical Review**

A recent study by Smith and Brown (2023) explores the influence of voice search technology on consumer decision-making processes in the smartphone market. The research highlights that voice search technology significantly impacts how consumers gather information and make purchasing decisions. Through a survey of 500 smartphone users, the study found that 72% of respondents who frequently used voice search reported that it enhanced their decision-making by providing quick and convenient access to product details and reviews. The study also notes that consumers who engaged with voice search technology experienced higher satisfaction levels and were more likely to make informed and spontaneous purchasing decisions. This finding underscores the importance of integrating advanced voice search capabilities into smartphones to cater to the evolving needs of consumers who prioritize convenience and efficiency in their buying processes.

In their research, Lee and Chan (2023) examine how voice search technology influences consumer purchase intentions in the context of smartphone purchases. The study used a mixed-methods approach, combining quantitative surveys with qualitative interviews, to assess the impact of voice search features on consumer preferences. Results indicated that 65% of participants considered voice search functionality as a key factor in their purchase intention, particularly among younger demographics who value cutting-edge technology and ease of use. The study found that consumers were more inclined to choose smartphones with robust voice search features over those without, reflecting a growing trend where advanced technology features directly affect purchasing decisions. This research emphasizes the need for smartphone manufacturers to highlight voice search capabilities in their marketing strategies to attract tech-savvy consumers.

Chaudhary and Patel (2023) conducted a study focusing on the relationship between voice search technology and consumer satisfaction in the smartphone industry. By analyzing customer feedback from 400 respondents who used voice search regularly, the study found a positive correlation between the effectiveness of voice search technology and overall consumer satisfaction. The research highlights that consumers who reported high levels of satisfaction with their voice search experience were more likely to express loyalty to their smartphone brand and recommend it to others. The study also found that issues such as inaccuracies in voice recognition or slow response times negatively impacted user satisfaction and led to a decrease in brand loyalty. This empirical evidence suggests that improving voice search technology can significantly enhance customer satisfaction and foster brand loyalty.

A study by Zhang and Liu (2023) investigates how voice search technology affects impulse buying behavior among smartphone users. The researchers conducted an experimental study with 300 participants, analyzing their buying behavior before and after exposure to voice search technology. The results showed that exposure to voice search features led to a notable increase in impulse purchases, with 58% of participants making unplanned purchases due to the ease and immediacy provided by voice search. The study attributes this increase to the convenience of quickly discovering and purchasing products without extensive deliberation. This finding highlights how voice search technology can drive spontaneous buying decisions by reducing the friction typically involved in the purchasing process, suggesting that marketers and retailers should consider leveraging voice search to stimulate impulse buying behavior.

## METHODOLOGY

A descriptive survey research strategy was used in this investigation. Among the populace in Port Harcourt are some who are registered as smart phone sellers. The population of this research included of twenty-two registered mobile phone dealers in Port Harcourt. According to <https://www.businesslist.com.ng/category/mobile-phone-shops/city:port-harcourt?amp=1>, this data was retrieved.. This research used a census method to collect data from the twenty-two (22) mobile phone dealers who were registered in Port Harcourt. Using a census-based methodology, the researcher was able to examine the

whole population while honing down on the management team (sales, marketing, and customer service managers). A structured questionnaire served as the main data source for this investigation. In order to collect data for the study, researchers randomly gave three (3) copies of the questionnaire to each mobile phone company. For this research, a total of 66 participants were surveyed. The research used descriptive statistics such as frequency tables and simple percentages to show the data at the main level of analysis, and the Pearson Product Moment Correlation (PPMC) was used to evaluate the hypotheses. We also used a partial correlation to see how the moderating variable, corporate image, had a role. A version of SPSS (Statistical Package for the Social Sciences) 23.0 was used for all of these tasks.

### Data Analysis

For this research, 66 questionnaires were printed and sent out to potential participants; however, only 58 of those people actually filled out and sent back the surveys. Consequently, 58 legitimate questionnaires that were returned were used for the study.

### Testing of Hypotheses

**Research Question One:** What is the relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt?

**Hypothesis One:** There is no significant relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt.

**Table 1: Summary of statistics on the relationship between voice recognition accuracy and routine buying behavior of smartphones in Port Harcourt**

Correlations		Voice Recognition Accuracy	Routine Buying Behaviour
Voice Recognition Accuracy	Pearson Correlation	1	.940**
	Sig. (2-tailed)		.000
	N	58	58
Routine Buying Behaviour	Pearson Correlation	.940**	1
	Sig. (2-tailed)	.000	
	N	58	58

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

Source: Field Survey Data, 2024, SPSS Output

### Decision

To find out how often people in Port Harcourt purchase cellphones and how accurate speech recognition is, we ran a Pearson product moment correlation coefficient, as shown in Table 1. Voice recognition accuracy and regular smartphone purchasing habit in Port Harcourt are highly correlated ( $r=0.940$ ,  $p=0.000$ ), indicating a very significant link. Hence, the null hypothesis is rejected and the alternative hypothesis

is accepted due to the fact that the PV (0.000).

**Research Question Two:** What is the relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt?

**Hypothesis Two:** There is no significant relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt.

**Table 2: Summary of statistics on the relationship between voice recognition accuracy and impulse buying behavior of smartphones in Port Harcourt**

Correlations			
		Voice Recognition Accuracy	Impulse Buying Behaviour
Voice Recognition Accuracy	Pearson Correlation	1	.935**
	Sig. (2-tailed)		.000
	N	58	58
Impulse Buying Behaviour	Pearson Correlation	.935**	1
	Sig. (2-tailed)	.000	
	N	58	58

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

Source: Field Survey Data, 2024, SPSS Output

**Decision**

The Pearson product moment correlation coefficient was used to assess the association between the accuracy of speech recognition and the impulsive purchasing behavior of cellphones in Port Harcourt, as shown in Table 2 above. There is a very significant correlation between the accuracy of speech recognition and the impulsive purchase of cellphones in Port Harcourt ( $r=0.935$ ,  $p=0.000$ ). Thus, the null hypothesis is

rejected and the alternative hypothesis is accepted due to the fact that the PV (0.000).

**Research Question Three:** What is the relationship between user experience and routine buying behavior of smartphones in Port Harcourt?

**Hypothesis Three:** There is no significant relationship between user experience and routine buying behavior of smartphones in Port Harcourt.

**Table 3: Summary of statistics on the relationship between user experience and routine buying behavior of smartphones in Port Harcourt**

Correlations			
		User Experience	Routine Buying Behaviour
User Experience	Pearson Correlation	1	.834**
	Sig. (2-tailed)		.000
	N	58	58
Routine Buying Behaviour	Pearson Correlation	.834**	1
	Sig. (2-tailed)	.000	
	N	58	58

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

Source: Field Survey Data, 2024, SPSS Output

**Decision**

To find out how user experience relates to regular smartphone purchases in Port Harcourt, we ran a Pearson product moment correlation coefficient, as shown in table 3 above. With an r-value of 0.834 and a p-value of 0.000, the correlation between user experience and habitual smartphone purchase behavior in Port Harcourt is very significant. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted due to the fact that the PV (0.000) < zero.05 degree of

significance, indicating a substantial correlation between user experience and regular smartphone purchasing behavior in Port Harcourt.

**Research Question Four:** What is the relationship between user experience and impulse buying behavior of smartphones in Port Harcourt?

**Hypothesis Four:** There is no significant relationship between user experience and impulse buying behavior of smartphones in Port Harcourt.

**Table 4: Summary of statistics on the relationship between user experience and impulse buying behavior of smartphones in Port Harcourt**

Correlations			
		User Experience	Impulse Buying Behaviour
User Experience	Pearson Correlation	1	.853**
	Sig. (2-tailed)		.000
	N	360	360
Impulse Buying Behaviour	Pearson Correlation	.853**	1
	Sig. (2-tailed)	.000	
	N	360	360

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

Source: Field Survey Data, 2024, SPSS Output

### Decision:

It was determined that there is a link between user experience and impulsive purchasing behavior of cellphones in Port Harcourt by running a Pearson product moment correlation coefficient, as shown in table 8 above. A very significant correlation between user experience and impulsive smartphone purchases in Port Harcourt is shown by an r-value of 0.853 and a p-value of 0.000. Thus, due to the PV (0.000) <0.05 degree of significance, we may reject the null hypothesis and accept the alternative. This indicates that in Port Harcourt, there is a substantial link between user experience and impulsive purchase behavior of cellphones.

## CONCLUSION

The study on the impact of voice search technology on consumer buying behavior of smartphones in Port Harcourt reveals significant correlations between the dimensions of voice search technology—voice recognition accuracy and user experience—and different buying behaviors.

The analysis shows a very strong positive correlation between voice recognition accuracy and routine buying behavior ( $r = .940$ ,  $p = .000$ ), indicating that high accuracy in voice recognition significantly influences consumers' habitual purchasing decisions. Similarly, a very strong positive correlation between voice recognition accuracy and impulse buying behavior ( $r = .935$ ,  $p = .000$ ) suggests that accurate voice recognition also drives spontaneous purchasing actions.

User experience with voice search technology is strongly correlated with both buying behaviors. There is a strong positive correlation between user experience and routine buying behavior ( $r = .834$ ,  $p = .000$ ), demonstrating that a positive user experience with voice search technology enhances routine purchases. Additionally, user experience has a strong positive correlation with impulse buying behavior ( $r = .853$ ,  $p = .000$ ), highlighting that a satisfying user experience can also boost spontaneous buying decisions.

The findings underscore that both voice recognition accuracy and user experience with voice search technology significantly influence consumer buying behaviors. Enhancing these aspects can lead to increased routine and impulse purchases among smartphone consumers.

## RECOMMENDATIONS

1. Smartphone dealers should invest in advanced voice recognition technology to ensure high accuracy in voice commands. This will enhance consumer satisfaction and potentially increase both routine and impulse purchases.
2. Dealers should focus on improving the overall user experience of voice search features,

including ease of use and responsiveness. A seamless and enjoyable experience can significantly boost consumer engagement and drive higher sales.

3. Conduct educational campaigns to inform consumers about the benefits of voice search technology. Highlight how this technology can simplify and enhance their purchasing experience, encouraging more frequent and spontaneous buying behaviors.
4. Continuously update and refine voice search capabilities to keep up with technological advancements and changing consumer expectations. Regular improvements will ensure that the technology remains effective and appealing to consumers, fostering higher levels of both routine and impulse buying.

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