The Role of Artificial Intelligence in Shaping Sustainable Consumer Behavior: A Cross-Sectional Study of Southwest, Nigeria

Oke T. T.[1], Ramachandran T.[2], and A. F. Afolayan[3]*, K. C. Ihemereze[4], C. A. Udeh[5]

[1]Yannis Marketing, Lagos, Nigeria

[1]SRM Institute of Science and Technology, Kattankulathur, Chennai, India

[2]Institute for Sustainable Development, First Technical University, Ibadan, Oyo State, Nigeria

[3]Cocharis Motors Ltd, Nigeria

[4]Independent Researcher, Lagos

***Corresponding Author**

DOI: https://doi.org/10.51244/IJRSI.2023.1012021

Received: 04 December 2023; Accepted: 08 December 2023; Published: 07 January 2024

ABSTRACT

Artificial Intelligence (AI) has become ubiquitous leaving imprints in every facet of life even stronger as the growing number of purchases occur online. Despite the associated benefits of AI, little is still known about the relationship between this powerful tool and sustainability in consumer behaviour. This study was, therefore conducted to assess the importance of AI in influencing sustainable consumer behaviour in Nigeria. Data was collected for the research using a pre-tested, well-structured questionnaire administered to 320 respondents. Data collected were analysed using SPSS version 20 and STATA version 12.0. Results of the analysis showed that the experience of the respondents is relatively high at 9.1±4.58, and the mean number of times purchased per month was 5±2.17 while 49 per cent of the respondents are aware of the use of AI in online shopping. About 67.5 per cent of the respondents were familiar with AI while 27.19 per cent carried out a purchasing decision based on AI-generated recommendations related to sustainability. Consumers also believe that the influence of AI on consumer choices is reflected in receiving personalized recommendations for products and services, but believe AI plays moderate role on the level of influence these personalized recommendations have on the decision to purchase a product is relatively low. The results suggest that AI could impact Sustainable consumer behaviour in the study area.

Keywords: Artificial Intelligence, Consumer Behaviour, Sustainability, e-commerce

INTRODUCTION

The human being is a very challenging subject of study to comprehend with its continually evolving nature and idiosyncrasy. This unique trait of man has continually been displayed in the allocation of resources either for production or consumption. The traditional method of getting the produced goods to consumers has since seen changes in the process of marketing (Jia *et a*l., 2023). These changes extend to sustainability in every sphere of life of man including the decision-making process in markets and marketing. This growing global environmental awareness and concerns have triggered a major movement in consumer behaviour toward sustainability of production and consumption in recent years (Vinuesa *et al*., 2020). The growing awareness of the environmental impact of consumer decisions has led to a sustained increase in demand for sustainable products and activities. This trend is captured by Nielsen (2021), showing that 73% of customers worldwide are willing to alter their consumption patterns for sustainability's sake. This fundamental change has made it possible to investigate novel strategies for promoting and maintaining environmentally conscious consumer behaviour (Vinuesa *et al*., 2020, Jiang et al., 2022).

Another game-changer is the continuing role of technology with the specific influence of Artificial

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

Intelligence (AI) applications that cut across every fibre of society's fabric (Beyari and Garamoun, 2022). The role that AI plays in our economy is increasingly important with its potential to power improvement of productivity and economic growth. This is expected to be expressed in the improvement of quality and timeliness of the decision-making processes of both producers and buyers. Data would be transformed by AI to strategically guide meaningful consumer behaviour thus leading to better consumer satisfaction. It is also expected that reaching the right clients at the right moment is made much easier for firms by AI-based digital marketing (Ransbotham, et al. 2017). Considering that we currently sit at the intersection of sustainability and technology, we must investigate the precise role that AI plays in shaping sustainable consumer behaviour.

The predictive power of AI has continued to significantly cause a revolution of product recommendations for buyers and improve customer service interaction. This is expected to provide a level of personalization that will suit consumers in terms of utility and satisfaction thereby affecting purchasing decisions and utility derived. With the continuing deployment of newer and improved AI technologies, the need to understand their influence on helping both suppliers and buyers towards sustainable consumer behaviour is a win-win scenario that the economy requires (Mecula, 2023). Actualizing this will be the beginning of a future where the decision-making process and market strategies are done with the primary intention of meeting environmental challenges while embracing technological advancements (Marcello et al., 2022).

For this study, the specific objectives of the study are to examine the influence of AI on consumer choices in the study area and identify the factors affecting AI implementation for Sustainable Behaviour.

LITERATURE REVIEW

Artificial intelligence (AI) as a tool has continued to affect increasing aspects of daily life in recent years with major implications for consumer behaviour and decision-making. This is very important because our lives are dependent on the millions of marketing transactions that occur every second which lays the need for this research. This part of the study prepares the literature review and aims to investigate the relationship between AI and sustainable consumer behaviour (Bawack, 2022).

With a focus on the Southwest area of Nigeria, this seminal effort investigates the dynamic interaction between Artificial Intelligence (AI) and Sustainable Consumer Behaviour. To provide a strong conceptual basis, this theoretical overview states the major concepts and how they relate to one another in the suggested framework.

Artificial Intelligence and Consumer Behavior

The appraisal of AI's influence on consumer behaviour has received increasing attention from the important worlds of academic and industrial scopes. AI technologies, encompassing machine learning algorithms and individualized recommendation systems, have been effectively employed to enrich the consumer experience through the provision of customized suggestions and information. Existing research indicates that AI-driven personalized recommendations play a pivotal role in shaping consumer preferences and decisions across diverse domains (Hosta, 2021; Nekmahmud and Fekete-Farkas, 2020).

However, there exists a notable gap in research concerning the specific ramifications of AI on consumer behaviour within the sustainability context. A comprehensive understanding of how AI technologies contribute to the adoption of sustainable practices becomes especially imperative as societies confront environmental challenges and actively seek innovative solutions.

AI-Sustainable Consumer Behavior Framework

To serve as a guide for this research effort into the influence of AI on shaping sustainable consumer

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

behaviour, we posit a theoretical framework (see Figure 1) showing the various variables for this study and their hypothesized interrelations. This framework is informed by pertinent literature encompassing AI, consumer behaviour, and sustainability.

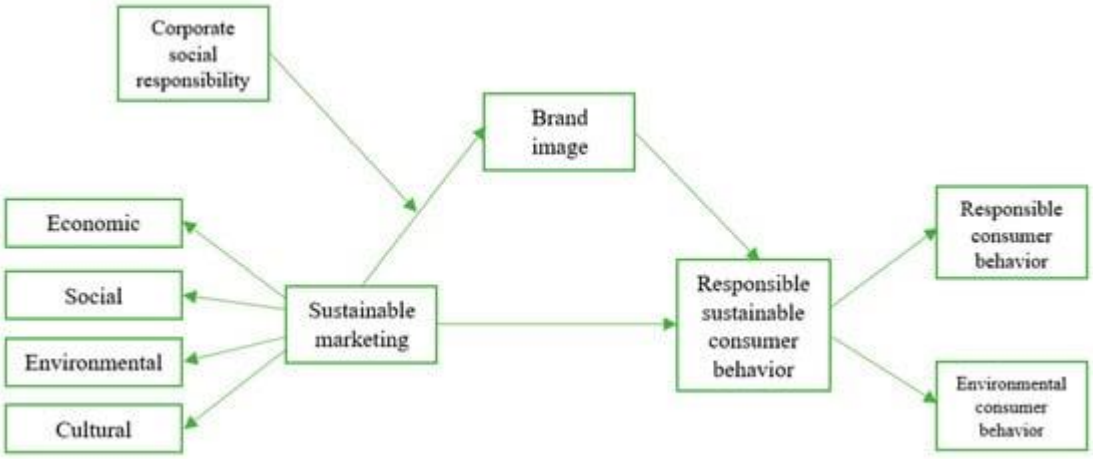


Figure 1: AI-Sustainable Consumer Behavior Framework

1. Independent Variable: Artificial Intelligence (AI) Implementation

In the context of sustainable consumer behaviour, AI implementation is posited as a pivotal factor influencing decision-making processes. We envisage three primary dimensions of AI implementation: personalized recommendations, information accessibility, and trust in AI. These dimensions collectively contribute to the extent to which AI influences consumers to make sustainable choices.

2. Mediating Variable: Consumer Awareness and Trust in AI

Central to the model is the role of consumer awareness and trust in mediating the relationship between AI implementation and sustainable consumer behaviour. A heightened awareness of AI-driven sustainability information, coupled with trust in AI recommendations, is expected to amplify the impact of AI on shaping sustainable consumer practices.

3. Dependent Variable: Sustainable Consumer Behavior

At the core of the framework lies sustainable consumer behaviour, encompassing two key dimensions: the purchase of environmentally friendly products and the adoption of sustainable practices in daily life. This variable serves as the outcome measure, reflecting the tangible impact of AI on fostering a more environmentally conscious consumer base.

4. Moderating Variables: Cultural, Economic, and Technological Factors in Southwest Nigeria

Recognizing the regional nuances in Southwest Nigeria, cultural, economic, and technological factors are introduced as moderating variables. These factors are anticipated to influence the strength and direction of the relationships within the model, acknowledging the diverse contextual landscape in which the study unfolds.

Synthesis and Implications

The proposed theoretical model aligns with the broader discourse on AI and sustainability, integrating regional considerations to enrich our understanding of the intricate relationships at play. By exploring the interdependence of AI implementation, consumer awareness, trust, and sustainable behaviour, this

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

framework offers a nuanced lens through which to examine the specific dynamics in Southwest Nigeria.

This model not only advances theoretical perspectives but also has practical implications for policymakers, businesses, and technology developers seeking to enhance sustainable practices in the region. As we embark on empirical investigations, this conceptual foundation will guide the interpretation of findings and contribute to the evolving dialogue on AI's role in shaping sustainable consumer behaviour.

Gaps in Existing Literature

While AI's impact on consumer behaviour has been explored, there is a notable gap in understanding how AI specifically contributes to sustainable consumer behaviour, particularly in diverse regional contexts. This study aims to address this gap by focusing on Southwest Nigeria, where cultural, economic, and technological factors may shape the dynamics between AI and sustainable practices.

In summary, this literature review establishes the foundation for our study, emphasizing the need to explore the role of AI in shaping sustainable consumer behaviour in Southwest Nigeria. The proposed theoretical framework provides a structured approach to examining the complex interplay between AI, consumer awareness, trust, and sustainable behaviour in this unique regional context.

DATA AND ESTIMATION METHOD

The population for this study consists of internet users in three States namely Lagos, Oyo and FCT, Abuja. Data were collected from randomly selected 320 students and shoppers using a structured questionnaire. Data were collected on socio-demographic information, risk-related factors, privacy concerns, web-based information, etc. Data collected were estimated using descriptive statistics.

ANALYSIS AND RESULTS

Socio-economic Characteristics

The mean sex value was 0.49, with a standard deviation of 0.40, indicating a relatively balanced distribution of gender within the sample. A mean age of 24 years was also recorded amongst the respondents, with a standard deviation of 10.9, reflecting a diverse age range within the surveyed population. On average, respondents were recorded to have attained at least 9.2 years of formal education, with a standard deviation of 4.91, suggesting variability in educational backgrounds within the sample. The mean monthly income from the table was revealed to be N45,050, with a standard deviation of N10,535.8, indicating variability in the income levels of the respondents. The mean off-schooling work value was also seen to be 0.55, with a standard deviation of 0.24, suggesting a moderate level of participation in off-schooling work among the respondents.

Table 1 revealed that respondents had an average online shopping experience of 9.1, with a standard deviation of 4.58, indicating moderate variability in the level of familiarity with online shopping platforms and that on average, respondents engaged in online shopping five times per month, with a standard deviation of 2.17, suggesting a consistent yet somewhat varied frequency of online shopping. The moderate level of online shopping experience and high frequency of monthly online shopping suggest a growing trend in the adoption of online shopping platforms among the surveyed population. This aligns with the global shift towards e-commerce.

Table 1 also revealed the mean awareness of AI use in shopping to be 0.49, with a standard deviation of 0.28, indicating moderate variability in respondents' awareness of AI applications in the context of online shopping. This awareness level of AI, though moderate, indicates room for improvement. Strategies to

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

enhance awareness and educate consumers about AI applications in online shopping may be beneficial for both consumers and businesses.

Table 1: Socio-demographic of the respondents

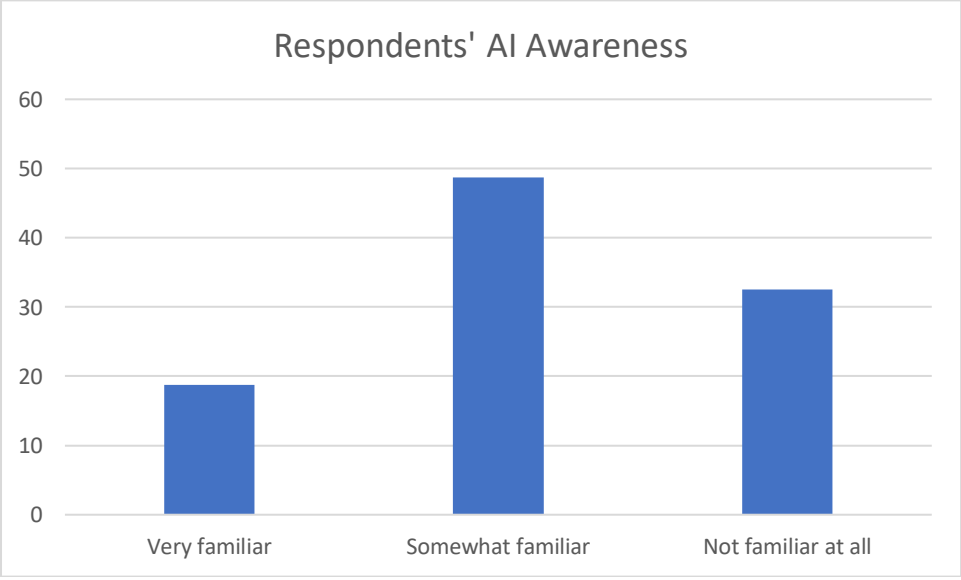
Variables	**Description**	**Mean**	**SD**
Socio-demographic			
Sex	Sex of Respondents (1 = Male, 0 otherwise)	0.49	0.40
Age	Age of respondents in years	24	10.9
Eduyear	Number of years of formal education	9.2	4.91
Monthlyincome	Monthly income (N)	45,050	10,535.8
OffIncome	Off-schooling work (1 if participating in off-schooling work, 0 otherwise)	0.55	0.24
Experience	Online shopping experience	9.1	4.58
Timepurchase	Number of times of monthly online shopping is done	5	2.17
AwareAI	Awareness of the use of AI in shopping (1 if used, 0 otherwise)	0.49	0.28

Level of familiarity with AI

The level of familiarity of consumers to Artificial Intelligence is presented in Table 1.1 and Fig. 1. Results show that a total of 67.50% of the sampled population are familiar with artificial intelligence, with 18.75% being very familiar and 48.75% being somewhat familiar. This implies that the level of familiarity with AI in the study area is moderately high.

Table 1.1: Level of Familiarity with AI

	Freq	**Per cent**
Very familiar	60	18.75
Somewhat familiar	156	48.75
Not familiar at all	104	32.5
Total	320	100



ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

List of AI applications known to and used by respondents

The number of AI applications that consumers are familiar with make use of is presented in Table 1.2. Results show that a *total of 67.50% of the sampled population are familiar with artificial intelligence, with 18.75% being very familiar and 48.75% being somewhat familiar*. This implies that the level of familiarity with AI in the study area is moderately high.

Table 1.2: List of AI applications known to and used by respondents

AI Application known	Freq.	Per cent
Ziva chatbot	39	12.19
Zigi	37	11.56
Leo chatbot	36	11.25
Ivy Chatbot	32	10
Temi Chatbot	35	10.94
Kuda bank app	37	11.56
Flutterwave	29	9.06
Others (Grammarly, Elevenlabs, Midjourney, ChatGPT, Canva)	75	23.44
Total	320	100

AI's Role in Shaping Sustainable Consumer Behavior

Table 1.3 reveals how the respondents perceived artificial intelligence to have a role in shaping consumer behaviour on a long-run scale to which 40.68% (Strongly Agree – 21.25%, Agree – 19.37%) of the respondents attested to being viable.

Table 1.3: Perception of respondents on whether AI shapes sustainable consumer behaviour

AI shapes sustainable consumer behaviour	**Freq.**	**Per cent**
Strongly agree	68	21.25
Agree	62	19.37
Neutral	70	21.88
Disagree	67	20.94
Strongly disagree	53	16.56
Total	320	100

Distribution of Consumers made purchasing decisions based on AI-generated recommendations related to sustainability

According to findings in Table 1.4, approximately 27.19% of respondents reported making purchasing decisions based on AI-generated recommendations related to sustainability. This indicates a notable proportion of the sample actively relies on AI-driven suggestions when considering the environmental and social impact of their purchases.

Table 1.4: Consumers made purchasing decisions based on AI-generated recommendations related to sustainability

	Freq.	**Per cent**
Yes	87	27.19

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

No	133	41.56
Not sure	100	31.25
Total	320	100

Distribution of Consumers according to their trust in AI recommendation related to Sustainability

Table 1.5 also goes further to reveal that 37.82% (Complete Trust – 19.38%, Trust to some Extent – 18.44%) of the responders had trust in the sustainability-driven recommendations generated by AI. This indicates that above a quarter of the sample has a high level of confidence in AI's ability to provide reliable and trustworthy suggestions for sustainable purchasing.

The findings suggest a diverse landscape regarding the integration of AI-generated recommendations into consumers' sustainability-related decision-making processes. While a significant portion remains skeptical or unsure, a noteworthy group actively incorporates AI suggestions into their purchasing decisions.

Table 1.5: Consumers' Trust in AI recommendation related to sustainability

	Freq.	**Per cent**
Completely trust	62	19.38
Trust to some extent	59	18.44
Neutral	82	25.62
Do not trust much	67	20.94
Do not trust at all	50	15.62
Total	320	100

Objective 2: Examine the Influence of Artificial Intelligence on Consumer Choices

Consumers received personalized recommendations for products or services from online platforms

From the findings in Table 2, approximately 57.19% of the respondents reported to receiving personalized recommendations for products or services from online platforms. This indicates a majority of the sample has experienced the integration of AI-driven personalized recommendations into their online shopping experiences.

Table 2.0: Consumers received personalized recommendations for products or services from online platforms

	Freq.	**Per cent**
Yes	183	57.19
No	137	42.81
Total	320	100

Consumers' perception of the level of influence these personalized recommendations have on the decision to purchase a product

From Table 2.1, the findings revealed that approximately 30.31% (Very influential – 14.06%, Influential – 16.25%) of the respondents perceived personalized recommendations to be very influential in their decision

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

to purchase a product. This suggests a notable portion of the sample attributes a high level of impact to AI-generated suggestions on their purchasing choices.

Table 2.1: Consumers' perception of the level of influence these personalized recommendations have on the decision to purchase a product

	Freq.	Per cent
Very Influential	45	14.06
Influential	52	16.25
Neutral	47	14.69
Not influential	39	12.19
Not applicable	137	42.81
Total	320	100

Consumers' being comfortable with AI technologies using their data to provide personalized recommendations

Table 2.2 revealed that approximately 38.44% of respondents were comfortable with AI technologies using their data to provide personalized recommendations. This suggests a substantial portion of the sample is open to and accepting of the use of personal data for personalized AI-driven services.

Table 2.2: Consumers' being comfortable with AI technologies using their data to provide personalized recommendations

	Freq.	Per cent
Yes	123	38.44
No	80	25.0
Not sure	117	36.56
Total	320	100

Types of products or services that consumers believe benefit the most from AI-driven personalized recommendations in promoting sustainable choices

Table 2.3 shows that about 16.88 per cent of the respondents are aware of and make use of Grammarly which is based on AI for writing…

Table 2.3: Types of products or services that consumers believe benefit the most from AI-driven personalized recommendations in promoting sustainable choices

AI Application known	Freq	Per cent
Ziva chatbot	24	7.5
Zigi by MTN	35	10.94
Leo Chatbot	58	18.12
Ivy Chatbot	52	16.25
Temi Chatbot	54	16.88
Kuda bank app	57	17.81
Flutterwave	40	12.5
Total	320	100

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

Types of products or services that consumers believe benefit the most from AI-driven personalized recommendations in promoting sustainable choices

Table 2 revealed that 43.75% (strongly agree – 23.75%, agree – 20.0%) of the sampled respondents view that AI can effectively contribute to raising awareness about sustainable living practices. This suggests a significant portion of the sample holds a positive view of AI's potential role in promoting sustainability awareness.

Table 2.3: Consumers' perception that AI can effectively contribute to raising awareness about sustainable living practices

	Freq.	Per cent
Strongly agree	76	23.75
Agree	64	20.0
Neutral	69	21.56
Disagree	45	14.06
Strongly disagree	66	20.63
Total	320	100

Consumers' ability to trust the information provided by AI about the sustainability of a product or service

Table 2.4 revealed that approximately 43.75% (Very likely – 24.69%, and likely – 19.06%) of respondents stated that they are very likely to trust the information provided by AI about the sustainability of a product or service. This indicates a substantial portion of the sample that has high confidence in the reliability of AI-generated information regarding sustainability.

Table 2.4: Consumers' ability to trust the information provided by AI about the sustainability of a product or service

	Freq.	Per cent
Very likely	79	24.69
Likely	61	19.06
Neutral	53	16.56
Unlikely	58	18.13
Very unlikely	69	21.56
Total	320	100

Objective 3: Identify Regional Factors Affecting AI Implementation for Sustainable Behavior

Consumers' perception of the role of government policies in influencing sustainable consumer behaviour in the study area

Table 3.0, from the findings, revealed that 36.56% (very influential – 17.81%, influential – 18.75%) of the sampled respondents perceived government policies as very influential in influencing sustainable consumer behaviour in the study area. This suggests a moderate proportion of the sample attributes a high level of impact to government interventions in shaping sustainability practices.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

Table 3.0: Consumers' perception of the role of government policies in influencing sustainable consumer behaviour in the study area

	Freq.	Per cent
Very influential	57	17.81
Influential	60	18.75
Neutral	58	18.13
Not very influential	67	20.94
Not influential at all	78	24.37
Total	320	100

Specific technological challenges in the study area that consumers believe that effective AI implementation could induce sustainable behaviour

From Table 3.1, respondents identified specific technological challenges in the study area that they believe effective AI implementation could address to induce sustainable behaviour which was power supply improvement (11.56%), traffic management (14.06%), educational dimension (12.19%), financial planning and access (15.94%), security purposes (17.50%), environmental dimension (12.50%) and access to timely Information (16.25%). These findings indicate that respondents recognize a range of technological challenges that, if effectively addressed through AI implementation, could contribute to sustainable behaviour in the study area.

Table 3.1: Specific technological challenges in the study area that consumers believe that effective AI implementation could induce sustainable behaviour

	Freq.	Per cent
Power Supply improvement	37	11.56
Traffic Management	45	14.06
Educational dimension	39	12.19
Financial planning and access	51	15.94
Security purposes	56	17.5
Environmental dimension	40	12.5
Access to timely information	52	16.25
	320	100

Consumers' perception of the role of economic factors in influencing their ability to adopt sustainable behaviour

From Table 3.2, findings revealed that 59.68% (strongly influence – 36.56%, influence – 23.13%) of the sampled respondents Approximately 36.56% of respondents strongly believe that economic factors strongly influence their ability to adopt sustainable behaviour. This suggests a significant portion of the sample perceives a strong connection between economic conditions and their capacity to engage in sustainable practices.

Table 3.2: Consumers' perception of the role of economic factors in influencing their ability to adopt sustainable behaviour

	Freq.	Per cent
Strongly influence	117	36.56
Influence	74	23.13

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

Neutral	61	19.06
Do not influence	68	21.25
Total	320	100

Importance of community awareness and participation in promoting sustainable behaviour

From Table 3.3, the findings revealed that 44.69% (very influential – 23.75%, influential – 20.94%) of the sampled respondents perceived community awareness and participation as very influential in promoting sustainable behaviour. This suggests a significant portion of the sample recognizes the importance of community engagement in fostering sustainability practices.

Table 3.3: Importance of community awareness and participation in promoting sustainable behaviour

	Freq.	**Per cent**
Very influential	76	23.75
Influential	67	20.94
Neutral	59	18.43
Not very influential	58	18.13
Not influential at all	60	18.75
Total	320	100

CONCLUSION

The increase in the use of the internet is enhancing the growth of e-commerce in Nigeria. However, the rate of increase in e-commerce, especially online purchasing can be shaped by the workings of AI in influencing Sustainable Consumer behaviour in the country.

Several ways were identified as the different uses of AI in the country presently and the consumers agree that AI plays a role in influencing sustainable consumer behaviour by suggesting recommendations for them to purchase related to sustainability and their trust in AI's recommendation to make purchase decisions related to sustainability. Consumers also believe that the influence of AI on consumer choices is reflected in receiving personalized recommendations for products and services, but believe AI plays a moderate role in the level of influence these personalized recommendations have on the decision to purchase a product is relatively low. Retailers should, therefore, build on the influence of AI in facilitating sustainable consumer behaviour and thereby attracting and holding on to consumers through online purchasing.

REFERENCE

1. Jia, T.; Iqbal, S.; Ayub, A.; Fatima, T.; Rasool, Z. (2023). Promoting Responsible Sustainable Consumer Behavior through Sustainability Marketing: The Boundary Effects of Corporate Social Responsibility and Brand Image. Sustainability, 15, 6092. https://doi.org/10.3390/ su15076092
2. OECD (2021), Artificial Intelligence, Machine Learning, and Big Data in Finance: Opportunities, Challenges, and Implications for Policy Makers, https://www.oecd.org/finance/artificial-intelligence-machine-learningbig-data-in-finance.htm.
3. Vinuesa R., H. Azizpour, I. Leite, M. Balaam, V. Dignum, S. Domisch, A. Felländer, S. D. Langhans, M. Tegmark and F. F. Nerini (2020). The Role of Artificial Intelligence in Achieving the Sustainable Development Goals, Nature Communications, 11:233, https://doi.org/10.1038/s41467-019-14108-y, nature.com/naturecommunications

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume X Issue XII December 2023

4. Jiang S., Jotikasthira N. and R. Pu (2022). Toward Sustainable Consumption Behavior in Online Education Industry: The Role of Consumer Value and Social Identity. Front. Psychol. 13:865149. doi: 10.3389/fpsyg.2022.865149
5. Beyari, H., and Garamoun (2022). The Effect of Artificial Intelligence on End-User Online Purchasing Decisions: Toward an Integrated Conceptual Framework. Sustainability 2022, 14, 9637. https://doi.org/10.3390/su14159637
6. Necula, S. (2023). Exploring the Impact of Time Spent Reading Product Information on E-commerce Websites: A Machine Learning Approach to Analyze Consumer Behavior. Behav. Sci. 2023, 13, 439. https://doi.org/10.3390/bs13060439
7. Marcello M. M., Rodrigo P. V, and W. Jochen (2022). AI in marketing, consumer research, and psychology: A systematic literature review and research agenda, Psychol Mark. 2022;39:755–776.
8. Bawack R.E. , S. F. Wamba, K. D. A. Carillo and S. Akter (2022). Artificial intelligence in E-Commerce: a bibliometric study and literature review, Electronic Markets, 32:297–338
9. Hosta, M., and V. Zabkar (2021). Antecedents of environmentally and socially responsible sustainable consumer behavior. J. Bus. Ethics, 171, 273–293
10. Souto, J.E. (2022). Organizational creativity and sustainability-oriented innovation as drivers of sustainable development: Overcoming firms' economic, environmental and social sustainability challenges. J. Manuf. Technol. Manag., 33, 805–826
11. Nekmahmud, M.; Fekete-Farkas, M. (2020). Why not green marketing? Determinates of consumers' intention to green purchase decisions in a new developing nation. Sustainability, 12, 7880.
12. Nielsen (2021). 88 percent of Consumers trust word of mouth, https://www.buyapowa.com/blog/88-of-consumers-trust-word-of-mouth/ accessed 30th October 2023
13. Ransbotham, S., Gerbert, P., Reeves, M., Kiron, D., and Spira, M. (2018). Artificial intelligence in business gets real. MIT Sloan Management Review