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An Exploratory Study on the Use of Robotics to Enhance Marketing Strategies in Business Organizations: A Case Study of Selected Firms

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ABSTRACT

With an eye toward companies like Shoprite Nigeria, UBA Bank, Hilton Hotels Nigeria, and MTN Nigeria, this study looks at how robotics may enhance marketing efforts in Nigerian enterprises. The study adopted a descriptive survey methodology to gather data from 200 individuals chosen by a mix of purposeful and proportional stratified sampling. After a standardized questionnaire was sent, descriptive and inferential statistics were used to examine the responses. The findings reveal that improving consumer involvement, brand impression, and the general success of marketing initiatives depends mostly on robots. Improving operational efficiency and customer experience have been noted from technologies including interactive kiosks, automated customer service systems, and in-store service robots. Still, various obstacles high costs, limited technical knowledge, and client resistance limit the general acceptance of robotics in marketing. Strongly positive links between the usage of robotics and gains in marketing effectiveness, customer satisfaction, and brand perception were found by hypothesis testing. Conversely, problems integrating robotics were found to have a detrimental effect on marketing performance. The report advises companies to strategically invest in robots, encourage the growth of technical knowledge, inform the public to increase acceptability, implement policies supporting innovation, and set up systems for ongoing observation and feedback. Following these techniques can help businesses maximize robotics to support marketing initiatives, increase customer happiness, and get a competitive edge. These results have important ramifications for organizations in Nigeria and other comparable developing countries as they offer insightful analysis for those wishing to include robotics into their marketing plans

INTRODUCTION

Organizations are turning to new technology more and more in the fast-paced, competitive corporate environment of today to strengthen their marketing campaigns and enhance consumer contacts. Originally confined to factories and manufacturing lines, robotics has now become a useful tool in marketing and service delivery. Advances in artificial intelligence (AI), machine learning, and human-robot interaction have made robots increasingly relevant for a variety of customer-facing tasks. These include greeting customers, taking part in advertising events, and providing customized marketing experiences spanning retail, banking, hotel, and telecoms. Robotics presents various benefits when included into marketing plans. It improves consumer experiences, simplifies processes, strengthens brand identification, and offers insightful information for use in decision-making. Robots at banks help consumers with simple transactions, for instance; retail outlets utilize them to guide consumers and recommend goods. Robotic systems handle customer service and promotional outreach in telecoms; robotic concierges welcome guests in the hospitality sector. Though robotics for marketing is attracting more and more attention worldwide, little study, especially in developing nations like Nigeria, n how

companies use these technologies to achieve marketing objectives. Although some Nigerian companies are starting to investigate robotics, the degree to which these technologies enhance marketing performance remains mostly unquestioned. This study is to investigate how robots is being used to improve marketing strategies in particular Nigerian companies including MTN Nigeria, UBA Bank, Shoprite Nigeria, and Hilton Hotels. The study aims to clarify how robotics affect marketing operations, the advantages gained, and the pragmatic difficulties companies have during integration.

Statement of the Problem

The application of robotics in marketing has the capacity to transform company processes. Still, including robotics into current plans presents certain difficulties. Common challenges are high implementation costs, technological complexity, consumer resistance, and mismatched organizational goals. Many businesses in Nigeria, where tech adoption usually lags behind more developed countries, still grapple with how best to use robotics for efficient marketing. While some top organizations have included robotics into marketing and customer service, little study has been done to assess the true effects of these programs. Important questions yet remain unresolved:

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Do robots actually raise customer satisfaction? What effects on brand image and revenue increase do they create? What operational modifications call for?

Furthermore, the absence of recorded case studies provides a void in useful knowledge from which other companies can draw inspiration. By looking at actual robotics uses in marketing across a small number of Nigerian companies, this study seeks to close that gap by providing evidence-based insights and workable recommendations.

Purpose of the Study

This paper aims to investigate how robotics could improve marketing plans in particular companies.

The particular goals are to:

1. Look at how the chosen companies' marketing operations use robotics.
2. Evaluate how well robotics increase customer involvement and happiness.
3. Point out difficulties companies have with using robotics into marketing.
4. Examine how robotics affect competitive positioning and brand image.
5. Provide doable suggestions on how robotics should be used in marketing effectively.

Research Questions

The following questions are aimed to be answered by this research:

1. How are chosen companies using robotics to improve marketing?
2. How successful are robotics seen to be in captivating and fulfilling consumers?
3. What are the primary difficulties businesses face including robotics into their marketing plans?
4. What effects on brand perception and competitive advantage does robotics use have?

Research Hypothesis

Research Tested were the following null hypotheses:

- H₀₁: In certain companies, the efficacy of marketing operations has no appreciable correlation with the employment of robotics.
- H₀₂: Customer involvement and satisfaction are not much improved by robotics.
- H₀₃: The success of marketing plans is not much influenced by difficulties in using robotics.
- H₀₄: Using robotics has no appreciable effect on competitive advantage or brand impression.

Significance of the Study

Different stakeholders benefit from this study:

Business Organizations

It offers useful information on the pragmatic advantages and constraints of applying robotics in marketing, therefore guiding companies toward better strategic choices.

Marketing Professionals

It clarifies how robotics could enhance consumer connection, brand loyalty, and market competitiveness.

Policymakers

It draws attention to areas where favorable legislation may inspire creativity and promote more general acceptance of robotics in marketing.

Scholars

It adds to the expanding but still small corpus of scholarly publications on robotics in marketing, especially in Nigeria and African settings.

Technology Developers

It provides comments on user demands and business expectations, which can direct the design of next robotics applications for commercial uses.

Delimitation of the Study

Study's Delimitation Four particular companies—Shoprite Nigeria (retail), UBA Bank (banking), Hilton Hotels (hospitality), and MTN Nigeria (telecommunications) comprise this study. The research centers on how these companies support marketing initiatives using robotics. Geographically, the study covers just Nigeria. Thematically, it focuses on acceptance, efficiency, difficulties, and influence of robots in marketing.

Limitation of the Research

There were several restrictions on the research:

- Citing privacy issues, some companies were reluctant to reveal specific information about their robots and marketing techniques.
- Given only four companies are investigated, the results might not be applicable to all businesses or economic environments.
- Time and financial restrictions have restrict the depth and extent of main data collecting.

LITERATURE REVIEW

The Study research on the application of robotics in improving marketing plans, It is thoroughly reviewed in this part. It covers important ideas, theories, empirical results, and the recognition of gaps the present work aims to solve.

Theoretical Review

Anchored on the following ideas,

Technology Acceptance Model

TAM Originally put forth by Davis (1989), TAM clarifies how consumers come to embrace and employ a technology. It draws attention to two main elements affecting technology acceptance: perceived ease of use and utility. In the context of robots in marketing, companies and consumers are more inclined to welcome robotics when they see them as useful and easily interacted with.

Diffusion of Innovative Theory

Originally developed by Rogers (1962), this theory explains why, how, and at what pace fresh ideas and technologies proliferate. It stresses elements including relative advantage, compatibility, complexity, trialability, and observability. Using this prism, one may examine the use of robotics in marketing with an eye on company innovation and client acceptance.

Service-Dominant Logic (S-D Logic)

According to Vargo and Lusch (2004), the basic foundation of trade is service rather than goods. By providing value for consumers beyond simple product delivery, robotics fits within this paradigm.

Conceptual Review

Robotics

Robotics is the design, manufacturing, and application of machines (robots) able of autonomous or semi-autonomous task execution. Simple mechanical tools to sophisticated intelligent systems with artificial intelligence (AI) to carry out tasks usually performed by humans range in robots. Service robots in marketing communicate with consumers, provide customized experiences, and support of promotional initiatives. Ideas of Marketing Strategies Marketing plans are all-encompassing plans developed by companies to appeal to and convince possible consumers of buying their goods or services. Good strategies call for market segmentation, targeting, positioning, and the tactical use of the marketing mix that is, the product, price, place, promotion.

Robotics in Industry

Robotics in marketing is a new trend where robots are used to generate creative customer experiences, compile consumer data, enable sales, and boost brand loyalty by means of automation. Robots can be taught to show goods, communicate with consumers, distribute advertising materials, and customize service offers.

Empirical Review

Global Studies in Marketing and Robotics

According to some foreign research, including robotics into marketing improves consumer experiences and brand distinctiveness. Studies by Wirtz *et al.* (2018) and Tung and Au (2018) for example revealed that, when used properly, service robots can raise consumer happiness and loyalty.

Wirtz *et al.* (2018) conducted research on client acceptability of service robots in banks and hotels all around numerous nations. Customer happiness and brand loyalty were found to be much influenced by perceived competence, emotional intelligence, and anthropomorphism.

Comparably, Belanche *et al.* (2020) investigated how robots affect consumer interaction in retail settings. Their results imply that well-designed service robots improve client confidence and perceived service quality, therefore

fostering more repeat business.

Van Doorn *et al.* (2017) conducted a study on robotic marketing campaigns and discovered that customers view interactions with robots as unique and unforgettable, so improving brand memory and good word-of-mouth marketing. Adoption of robotics in Nigerian business environment

Robotics Adoptions in Nigerian Business Context

Okonkwo's 2020 research shows that while using robotics, Nigerian companies deal with issues including poor infrastructure, expensive costs, and customer opposition. Reflecting slow technical adoption, organizations including MTN Nigeria and UBA Bank have started trial projects to automate some customer support tasks. Adoption of robotics in developing nations

A research by Chukwuemeka and Adebayo (2021) looked into Nigerian companies' delayed adoption of robotics. While companies see robotics' ability to increase marketing efficiency, infrastructure issues, cost concerns, and lack of technical knowledge impede broad use, they noted these points of view.

Adeola and Evans (2019) saw researching automation trends in retail and African hospitality. Early adopters of service robots claimed better customer service metrics, but they encountered opposition from consumers who favored human interaction, therefore underscoring the need of combining human and robotic service delivery.

Customer perception of Robotics in Marketing

Lu *et al.* (2019), investigate how service robots impact consumer emotions and buy intentions in hotel environments. Their studies revealed that customer response to robotic marketing initiatives is much influenced by robot friendliness, perceived safety, and utility. McLeay *et al.* (2021) discovered in a retail setting that consumers' inclination to contact with robots rises when the robots' appearances are human-like and their communication skills are quite developed.

Advantages of Robotics in Marketing

Efficiency Gains

According to Huang and Rust (2018), Robot let companies provide 24/7 services, speed up client contacts, and over time lower running costs.

Personalization

Pino *et al.* (2020) claim that service robots fitted with artificial intelligence can customize marketing messages and product recommendations to particular client profiles, hence increasing customer pleasure and loyalty.

Brand Differentiations

Tussyadiah (2020) underlined that companies adopting service robots for marketing are sometimes seen as more innovative, which helps them get a competitive advantage in crowded markets.

Challenges of Using Robotics in Marketing

High Initial Investment

Sung *et al.* (2021) emphasized that, especially for small and medium-sized businesses (SMEs), the cost of acquiring, maintaining, and updating robotic systems may be prohibitive.

Customer Reluctance

Research by Broadbent *et al.* (2019) shown that consumers may first object to robotic interactions, particularly if they view robots as cold, impersonal, or threatening to employment security.

Technical Limitations

Ivanov and Webster (2019) underlined that, in complicated service situations, contemporary service robots still lack emotional intelligence and contextual adaptation, which can influence customer happiness.

Gaps in Literature

Limited Empirical Study

With few empirical data from African or Nigerian settings, most of the accessible research concentrates on developed economies.

Sector-Specific Insights

Not many studies specifically looking at robotics in sectors including retail, finance, hotel, and telecoms inside Nigeria.

Customer Perception

Few research in developing markets investigate consumer acceptability and view of robotic interactions in marketing operations.

Strategic Integration

Research is required to grasp how robotics may be strategically included into more general marketing strategy instead of used in isolated projects.

This paper aims to overcome these gaps by offering empirical data from particular Nigerian companies in several areas.

MATERIALS AND METHODS

This section describes the methodology used in the study including the research design, population, sample size and sampling technique, research instruments, validity and reliability checks, data collecting methods, and data analysis.

Research Design

To better grasp the views, experiences, and perceptions of the respondents from a representative group, the study used a descriptive survey design, which is suitable for this regard. This approach lets the researcher investigate how robots is applied to improve marketing plans among particular companies without changing the current surroundings.

Population of the Study

Four chosen companies' personnel engaged in marketing,

customer service, and technological operations made up the target group for this study:

- Shoprite Nigeria;
- UBA Bank;
- Hilton Hotels Nigeria;
- MTN Nigeria

Participants were marketing managers, customer service agents, IT staff in charge of robotics deployment, and pertinent operational staff employed in branches or head offices in Lagos, Abuja, and Port Harcourt.

Sample and Sampling Technique

To offer a varied representation, 200 responders in all were chosen from each of the four companies. Methodologies of Sample Taking were selected staff members particularly engaged in marketing, customer experience, or technology innovation using Purposive sampling and Proportionate stratified sampling which guaranteed fair representation across departments and job functions within every company. Sampling Distribution:

- Shoprite Nigeria: 50 respondents
- UBA Bank: 50 responses
- Hilton Hotels Nigeria: 50 responders
- MTN Nigeria: 50 responders

Research Instrument

Data collecting was mostly done using a standardized questionnaire. It comprised five main parts:

Section A: Demographic Information;

Section B: Application of Robotics in Marketing;

Section C: Effectiveness of Robotics in Customer Engagement;

Section D: Problems of Robotics Integration;

Section E: Impact of Robotics on Brand Perception and Competitive

Questionnaire Responses were gathered on a five-point Likert scale:

- Strongly Disagree (1)
- Disagree. (2)
- Neutral (3)
- Agree (2)
- Strongly Agree (5)

Validity of the Instrument

Subject-matter specialists in marketing, technology management, and research technique read the questionnaire to guarantee content validity. Comment received resulted in required changes that guaranteed congruence with the aims and hypotheses of the research.

Reliability of the Instrument

Twenty workers from companies not included in the main sample were part of a pilot research. Cronbach's Alpha was used to assess the reliability; a coefficient of 0.87 was achieved, thereby suggesting a strong degree of internal consistency.

Method of Data Collection

Together with qualified research assistants, the researcher

personally distributed the questionnaires. Each company's management acquired prior authorization, and questionnaires were sent during break times or business hours. Participants were urged to answer honestly and given assurances of anonymity.

Data Analysis

Both inferential and descriptive statistical techniques were applied: Analyzing demographic facts and research issues using frequency counts, percentages, means, and standard deviations in descriptive statistics. Using Regression Analysis and Pearson Product-Moment Correlation (PPMC), hypotheses were tested with significance set at 0.05. SPSS (Statistical Package for the Social Sciences) version 25 was used in all analyses.

Ethical Considerations

- Before joining the research, participants gave

informed permission.

- Participation was free; one had the freedom to stop at any moment.
- The research was carried out in a way that avoided damage, dishonesty, or coercion;
- The gathered data was handled with great confidentiality and anonymity.

RESULTS AND DISCUSSION

This section presents the analysis and interpretation of the data collected from respondents. It includes demographic information, a breakdown of responses according to the research questions, and the testing of hypotheses. The results are discussed in relation to the literature reviewed earlier.

Respondents' Demographic Information

Table 1: Distribution of Respondents' Demographics

S/N	Variables	Category	Frequency	Percentage (%)
1	Gender	Male	112	56.0
1	Gender	Female	88	44.0
2	Age	18-30 years	76	38.0
2	Age	31-45 years	96	48.0
2	Age	46 years and above	28	14.0
3	Department	Marketing	84	42.0
3	Department	Customer Services	58	29.0
3	Department	IT/Technology	58	29.0
4	Years in Organization	Less than 5 years	124	62.0
4	Years in Organization	5 years or more	76	38.0

Source: Author's field report, April 2025

Analysis According to Research Questions

Research Question 1: How are robotics used to improve marketing strategies in selected firms?

Table 2: Use of Robotics for Marketing

Item	SA	A	N	D	SD	Mean	Std. Dev.
Robotics are used for customer interaction	92 (46.0%)	70 (35.0%)	20 (10.0%)	10 (5.0%)	8 (4.0%)	4.13	0.89
Robots help in product demos	78 (39.0%)	74 (37.0%)	22 (11.0%)	14 (7.0%)	12 (6.0%)	4.02	0.98
Robots are used to collect customers feedback	88 (44.0%)	76 (38.0%)	16 (8.0%)	12 (6.0%)	8 (4.0%)	4.12	0.86

Source: Author's field report, April 2025. Grand mean = 4.09, SD = 0.91

Table 2 shows a grand mean of 4.09, which is significantly higher than the average of 2.50. The findings suggest that robotics are frequently utilized in customer interaction (4.13), product demonstrations (4.02), and gathering

feedback (4.12) as part of marketing strategies in the selected firms.

Research Question 2: How effective is robotics in improving customer engagement?

Table 3: Effectiveness of Robotics on Customer Engagement

Item	SA	A	N	D	SD	Mean	Std. Dev.
Customers respond positively to robotic tools	90 (45.0%)	78 (39.0%)	18 (9.0%)	8 (4.0%)	6 (3.0%)	4.18	0.82

Robotic support leads to faster resolution	94 (47.0%)	72 (36.0%)	20 (10.0%)	8 (4.0%)	6 (3.0%)	4.20	0.87
Robotics increase personalized interaction	85 (42.5%)	76 (38.0%)	18 (9.0%)	12 (6.0%)	9 (4.5%)	4.08	0.95

Source: Author Field report: April, 2025. Grand mean = 4.15, SD = 0.88

With a grand mean of 4.15, which is well above the 2.50 threshold, the results suggest that robotics significantly enhance customer engagement, particularly by speeding up responses, improving service quality, and personalizing

marketing efforts.

Research Question 3: What challenges do firms face when adopting robotics for marketing?

Table 4: Challenges in Robotics Adoption

Item	SA	A	N	D	SD	Mean	Std. Dev.
High cost of deployment	106 (53.0%)	64 (32.0%)	12 (6.0%)	10 (5.0%)	8 (4.0%)	4.25	0.88
Lack of skilled technical staff	88 (44.0%)	76 (38.0%)	14 (7.0%)	12 (6.0%)	10 (5.0%)	4.10	0.93
Resistance from customers unfamiliar with tech	72 (36.0%)	80 (40.0%)	20 (10.0%)	18 (9.0%)	10 (5.0%)	3.98	1.01

Source: Author's field report, April 2025. Grand mean = 4.11, SD = 0.94

Table 4 reveals a grand mean of 4.12, indicating that challenges like high costs, customer resistance, and a shortage of technical staff are key barriers to the

successful adoption of robotics in marketing.

Research Question 4: How do robotics impact brand perception and competitive advantage?

Table 5: Robotics' Impact on Brand Perception and Competitive Edge

Item	SA	A	N	D	SD	Mean	Std. Dev.
Robotics strengthen brand image	98 (49.0%)	74 (37.0%)	16 (8.0%)	8 (4.0%)	4 (2.0%)	4.24	0.84
Robotics create a competitive advantage	92 (46.0%)	76 (38.0%)	18 (9.0%)	10 (5.0%)	4 (2.0%)	4.20	0.88
Firms using robotics are viewed as innovative	104 (52.0%)	70 (35.0%)	12 (6.0%)	8 (4.0%)	6 (3.0%)	4.31	0.83

Source: Author's field report, April 2025. Grand mean = 4.25, SD = 0.85

Table 5 shows a grand mean of 4.25, which is higher than the average mean of 3.50. The findings indicate that robotics not only enhance the perception of a brand as innovative but also provide firms with a significant competitive advantage.

Hypotheses Testing

Hypothesis 1

H₀₁: There is no significant relationship between the utilization of robotics and the effectiveness of marketing strategies.

Table 6: Shows the correlation analysis between utilization of robotics and effectiveness of marketing strategies

Variables	N	Mean	SD	Df	r-val	P-val
Utilization of Robotics / Effectiveness of marketing strategies	200	4.09 / 4.15	0.91 / 0.88	198	0.712	0.000

P < 0.05 significance level

Table 6 shows that utilization of robotics (4.09) and effectiveness of marketing strategies (4.15), since r-value = 0.712 > P-value = 0.000. Therefore, they have a strong, positive, and statistically significant correlation. Thus, the null hypothesis is rejected.

Hypothesis 2

H₀₂: The use of robotics does not significantly improve customer engagement and satisfaction in selected firms

Table 7: Correlation between Use of Robotics and Customer Engagement and Satisfaction

Variables	N	Mean	SD	Df	r-val	P-val
Use of Robotics / Customer engagement and satisfaction	200	4.09 / 4.15	0.91 / 0.88	198	0.611	0.000

P < 0.05 significance level

Table 7 shows the use of robotics (4.09) and customer engagement and satisfaction (4.15). Since $r\text{-val} = 0.611 > p\text{-val} = 0.000$, this implies that greater adoption of robotics is associated with higher levels of customer engagement and satisfaction in the selected firms.

Therefore, the null hypothesis is rejected.

Hypothesis 3 (H₀₃)

Challenges in integrating robotics do not significantly affect the success of marketing strategies in selected firms.

Table 8: Shows the Correlation between Robotics integration challenges and marketing strategy Success

Variable	N	Mesn	SD	df	r-val	P-val	Decision
Robotic integration	200	4.12	0.90				
				198	-0.53	0.000	Reject
Marketing strategy success	200	4.25	0.85				

Significance level: $p < 0.05$

Interpretation

The correlation analysis in Table 8 reveals a significant negative relationship ($r = -0.533, p < 0.05$) between challenges in robotics integration and the success of marketing strategies. This implies that the more challenges firms face in implementing robotics, the lower

their success in marketing strategies. Therefore, the null hypothesis is rejected.

Hypothesis 4 (H₀₄)

Adoption of robotics does not significantly impact brand perception among customers.

Table 9: Shows the linear regression Analysis of adoption of robotics and impact of brand perceptions among customers

Variables	N	Mean	SD	df	Beta(β)	t-val	P-val	Decision
Adoption of Robotic	200	4.09	0.91					
				198	0.693	13.45	0.000	Sig
Brand perception	200	4.25	0.85					

Significance level: $p < 0.05$

Interpretation

The regression results in Table 9 indicate that the adoption of robotics significantly predicts customer brand perception ($\beta = 0.693, t = 13.45, p < 0.05$). This shows a strong positive effect of robotics adoption on how customers perceive the brand. Consequently, the null hypothesis is rejected.

intuitive robots inside the customer experience that boost customer satisfaction.

Still, the studies revealed some fairly notable obstacles. Among concerns include low employment of qualified professionals, early client resistance, and expensive setup fees. This captures the difficulties noted in the Nigerian IT sector by Adeola and Evans (2019), stressing related limitations. Overall confidence in robotics, Lu *et al.* (2019) found, is also hampered by security, job loss, and data exploitation of personal information.

Discussion

According to the research, several companies nowadays naturally incorporate robotics into their marketing plans. Among the several technologies it makes use of are in-store service robots, interactive kiosks, and automated customer support systems. These instruments improve customer experiences and help to streamline processes. These results complement prior studies by Wirtz *et al.* (2018), who underlined the importance of tailored interactions and real-time data use in enhancing marketing efficiency via means of service robots. Ivanov and Webster (2019) also underlined how robotics in consumer interface helps to boost brand impression and service performance.

Moreover demonstrated were the consequences of robotics use on brand impression. Tussyadiah (2020), who noted early adoption helps companies stand out in competitive markets, supports enterprises who apply these technologies; sometimes they are seen as forward-looking and customer-centric. Kim *et al.* (2021) therefore discovered that consumer loyalty usually becomes stronger when robotics help to assist branding aims.

More findings showed that robotic technologies greatly raise client involvement. Respondents noted that due of their speedier reaction times, around-the-clock service availability, and individualized communication, robots are a good engaging tool. This confirms the results of Belanche *et al.* (2020), who noted that in crowded sectors robots particularly help retail and telecoms. Furthermore claimed by Gursoy *et al.* (2019) are well-integrated and

Testing the hypotheses of the research found a very strongly positive link between the degree of robots use and marketing success ($r = 0.682, p = 0.05$). This echoes other studies by Wirtz *et al.* (2018) and Belanche *et al.* (2020), which indicated that data-driven strategies and automation aided to increase market reach and consumer targeting.

Customer satisfaction and robots clearly indicate another important link ($r = 0.611, p = 0.05$). This implies that skillfully implemented robotic technology helps users to feel confident and happy. Underlining the need of functional and tailored robotic interactions, the findings

coincide with those of Pino *et al.* (2020) and Lu *et al.* (2019). On the other hand, a negative association ($r = -0.533$, $p = 0.05$) was found in between problems with robots integration and marketing success. Studies by Okonkwo (2020) and Chukwuemeka & Adebayo (2021) stressing that high costs, skill shortages, and public uncertainty could limit marketing efficacy would correlate with this result. Sung *et al.* (2021) have observed how restricted technical infrastructure limits the possible uses of robotics in industry.

At last, consumer view of a brand is statistically strongly influenced by robots acceptability ($p < 0.05$). When implemented correctly, robotics not only improves the quality of services but also helps the company to project modern and innovative vision. This supports Tussyadiah's (2020).

Conclusion

The robotic contact increases brand recognition and client confidence—a perspective that Ivanov and Webster's (2019) study of its symbolic relevance in corporate identity affirms. This paper generally powerfully illustrates how robotics can be revolutionary factor in determining marketing results. From enhancing consumer interaction to increasing brand visibility, these technologies give companies a strategic advantage in an ever-competitive environment. Among other tools, automated kiosks, chatbots, and service robots greatly increase consumer happiness and brand loyalty. Still, some difficulties still exist. Particularly in underdeveloped nations like Nigeria, early client mistrust, high beginning expenses, and limited supply of qualified specialists remain important challenges. Notwithstanding these challenges, smart and strategic investments made by companies indicate great future possibilities based on the favorable link between the acceptance of robotics and marketing performance.

RECOMMENDATION

Make Smart Robotics Investments

Businesses should set aside specific funds for robotics infrastructure, maintenance, and upgrades strengthening long-term marketing plans.

Gain Technical Skills

Get skill through Course of Instruction. Established in partnership with academic institutions and tech centers should be set to give staff members required robotics management abilities by means of ongoing education programs.

Public Awareness and Advance Acceptability

Starting awareness campaigns can help consumers to realize the dependability and value of robotic systems, hence lowering opposition.

Offer Laws Promoting Innovation

Supported by well-defined KPIs to assess the deployment of robotics, corporate leaders should apply regulations

allowing integration of new technology.

Construct Systems of Monitoring and Feedback

By means of methodical feedback channels and consistent performance assessments, companies should routinely track the efficiency of robotics in marketing.

Suggestions for Further Research

- Particularly in developing countries, take long-term financial gains of robotics for marketing return on investment (ROI) into account.
- Under human-led rather than robotic-led marketing techniques, compare consumer satisfaction.
- Learn how robotics integration affects many different corporate operations like customer service and logistics in many different spheres.

REFERENCES

- Adeola, O., & Evans, O. (2019). Digital finance and economic development in sub-Saharan Africa. *Technological Forecasting and Social Change*, *146*, 111–120. <https://doi.org/10.1016/j.techfore.2019.05.009>
- Belanche, D., Casaló, L. V., Flavián, C., & Schepers, J. (2020). Service robot implementation: A theoretical framework and research agenda. *The Service Industries Journal*, *40*(3–4), 203–225. <https://doi.org/10.1080/02642069.2019.1676070>
- Chukwuemeka, E., & Adebayo, S. (2021). Barriers to robotics adoption in Nigerian retail firms. *Nigerian Journal of Business and Innovation*, *10*(2), 88–101.
- Gursoy, D., Chi, C. G., Lu, L., & Nunkoo, R. (2019). Consumers' acceptance of artificially intelligent (AI) device use in service delivery. *International Journal of Information Management*, *49*, 157–169. <https://doi.org/10.1016/j.ijinfomgt.2019.03.008>
- Ivanov, S., & Webster, C. (2019). Robots in tourism: A research agenda for tourism economics. In J. Neidhardt & W. Wörndl (Eds.), *Information and Communication Technologies in Tourism 2019* (pp. 281–293). Springer. https://doi.org/10.1007/978-3-030-05940-8_22
- Kim, J., Kim, S., & Park, E. (2021). Can smart technologies enhance customer relationship management? Understanding the roles of personalization and privacy. *Technological Forecasting and Social Change*, *170*, 120899. <https://doi.org/10.1016/j.techfore.2021.120899>
- Lu, L., Zhang, P., & Gursoy, D. (2019). Impact of service robots on consumers' attitudes and behavioral intentions in a hospitality setting. *International Journal of Hospitality Management*, *83*, 33–43. <https://doi.org/10.1016/j.ijhm.2019.04.004>
- Okonkwo, C. (2020). Robotics adoption in Nigerian SMEs: Challenges and future prospects. *African Journal of Science, Technology and Society*, *7*(1), 45–59.
- Pino, G., Peluso, A. M., & Guido, G. (2020). Replacing humans with robots in hospitality services: A value-based approach to customer acceptance. *Journal of Business Research*, *117*, 311–320. <https://doi.org/10.1016/j.jbr.2020.05.009>

- org/10.1016/j.jbusres.2020.05.049
- Sung, J., Jeong, S., & Kim, Y. (2021). Exploring the barriers to the adoption of service robots: A customer perspective. *Technology in Society, 64*, 101478. <https://doi.org/10.1016/j.techsoc.2020.101478>
- Tussyadiah, I. P. (2020). A review of research into automation in tourism: Launching the Annals of Tourism Research Curated Collection on artificial intelligence and robotics in tourism. *Annals of Tourism Research, 81*, 102883. <https://doi.org/10.1016/j.annals.2020.102883>
- Wirtz, J., Patterson, P. G., Kunz, W. H., Gruber, T., Lu, V. N., Paluch, S., & Martins, A. (2018). Brave new world: Service robots in the frontline. *Journal of Service Management, 29*(5), 907–931. <https://doi.org/10.1108/JOSM-04-2018-0119>