



Digital Marketing, Perceived Risk, and Purchase Intention of EVs among African Generation Z

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Abstract

This research examines the influence of digital marketing on the purchase intention of electric vehicles (EVs) among African Gen Z, with perceived risk as the mediator. As a result of their digital nativity and environmentally conscious nature, African Gen Z is proposed as the core demographic for EV marketing. The research adopts a quantitative research technique with 382 respondents from various African countries. It has been concluded that digital marketing impacts purchase intention and has an indirect effect through perceived risk among African Gen Z. Perceived risk, including concerns about battery performance, inadequate infrastructure in Africa, and cost, negatively affected purchase intention. Leveraging digital marketing strategies, including influencer marketing and user-generated content tailored to the African context, can address perceived risks and enhance African Gen Z's willingness to adopt electric vehicles. These findings provide valuable insights for marketers and policymakers in Africa promoting EV adoption through targeted digital campaigns.

1. Introduction

In the past, cars whose energy source is fossil-based have met basic transport needs for persons and companies in Africa and worldwide. However, these technologies pollute the physical environment terribly, especially in societies with highly populated central business districts across African cities. To counteract these problems, electric vehicles (EVs) have been developed as a more sustainable solution for African countries and the rest of the world. Data from the IEA shows more than one billion vehicles worldwide, using about sixty million barrels of fuel

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daily, while private cars alone use thirty-six million barrels. This leads to the emission of around 14 million tons of carbon dioxide daily (Jones et al., 2024). In a new study by Jones et al., (2024), we learn that environmental performance is a more critical determinant of electric vehicle (EV) ownership than considerations such as costs or 'range anxiety,' pointing to the opportunities that EVs can offer for the global reduction of greenhouse gas emissions including in Africa. While it is true that fossil fuel vehicles have certain inherent qualities, they cannot compare with the long-run cost efficiency, eco-friendliness, and sustainability of EVs, which should be explained to encourage transition in African markets.

Recent research by Garcia et al., (2023) has identified scarce charging stations, the cost of replacing depleted batteries, battery durability, and capacity as significant challenges in Africa. In addition, high initial costs through acquisition prices and a lack of charging stations have helped keep adoption rates down, but electric vehicles are cheaper to operate in the long run, which is advantageous for African consumers.

Gen Z, born between mid-1995 and the early 2010s, is a vital audience to target in promoting EV sales; this group is the most popular netizen and users of digital platforms. This, coupled with communication, shopping, and services in the digital world, makes digital marketing a leverage that influences the buying behavior of Gen Z. With more organizations migrating their operations online, it becomes crucial for marketing communication to interfere with the online conduct of Gen Z and this is supported by a study done by (Harris et al., 2023). They are Entertainment and Information Seekers through social media and instant messaging, thereby limiting their virtual and actual lives (Martin and Liu (2023). Social networks are already crucial for interacting with the members of the population and setting their attitudes and purchasing behavior, including regarding the purchase of EVs (Adams et al., 2024; Addo et al., 2021).

While the digital space has limited pros for marketing EVs and propagating the personal and environmental values of EVs, the risk associated with the use of EVs cannot be overlooked in the purchase of EVs (Chiu & Nguyen, 2022). This study thus looks at the mediating influence of perceived risk in the relationship between digital marketing and Gen Z's purchase intention toward EVs. In this respect, the study seeks to find out how digital marketing can promote the purchase intention of EVs among African Gen Zs as a developing EV market while mindful of the perceived risks such as costs, charging infrastructure, vehicle performance, availability, and charge anxiety. By identifying this generation's specific behaviors and worries, this research aims to contribute to the comprehension of how to access this young online audience in the EV market.

2. Literature review

2.1 Theoretical Review

The current study explores the impact of digital marketing on the purchase intention of EVs among Gen Z, with perceived risk as a mediator. We also rely on the existing literature, specifically the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). Davis (1989), in developing the technology acceptance model (TAM), posited that perceived usefulness and ease of use were the primary users' 'drive' to accept and use new technologies. In general, EV adoption and digital marketing can impact these factors by making

consumers aware of the long-term environmental and financial benefits of electric vehicles, increasing their relevance. Also, important factors like battery life and the charging infrastructure will enhance the perceived ease of use, which should help incentivize Gen Z towards EVs.

The TPB framework takes this understanding further by stating that the intent of performing a particular behavior arises from attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991).

Perceived risk is a critical determinant in the TAM and TPB models when adopting new technologies such as EVs. Perceived risks are directly related to purchase intentions, including financial cost, inadequate infrastructure, and performance risks (Garcia et al., 2023). Sometimes, even when digital marketing has achieved a positive attitude and perceived behavioral control, a high perceived risk may make the consumer shy away from the product (Gunawardane and Dk, 2019). Hence, any digital marketing campaign should not only look at developing the customers' perceptions but equally concentrate on the perceived risks by the customers. Cleaning up misconceptions about the performance of EVs, the cost savings that could be realized by owning such vehicles, and the present myriad of charging stations could well solve most of the concerns that Gen Z might have for EVs.

In summary, with their combined model, TPB and TAM provide a robust theory that explains the role of digital marketing in determining the purchase intention of EVs amongst Gen Z buyers. Drawing on both the TAM theory, digital marketing improves the perceived utility or usefulness of EVs and the perceived ease of use, whereas, in line with the TPB, it influences attitudes, perceived social norms, and perceived control over the drive to perform a behavior. However, perceived risk is found to be one of the most essential moderator variables. Through better management of perceived risks by providing well-coordinated digital marketing stimuli, this study predicts that the acceptance of EVs among the currently young and environmentally conscious Gen Z will be significantly enhanced.

2.2 Digital marketing and purchasing intention of gen z

Digital marketing is selling goods and services through media technologies, which have significantly changed the face of modern marketing. Of these, social media marketing is the most important, with TikTok, Instagram, and Facebook being pivotal in reaching consumers, especially Gen Z, who prefer short video content (Rizomyliotis et al., 2024; Yamagishi et al., 2024).

Current literature suggests that consumers of the Gen Z community are active social media users who spend several hours on it. It increases their capacity to interact with short-form video advertisements, live streaming, short and snappy creative content, and fancy and catchy slogans that catch their attention through its interactivity leading to purchasing emotive responses (Moreno et al., 2023; Tuan et al., 2023; Addo et al., 2021). In addition, social media influencers' entertainment value and perceived credibility are vital because they act as medial relegations that trigger consumer sentiments and make the probability of a purchase likely. Regarding the type of content, it can be noted that information created by ordinary users is significantly more effective than typical commercials. Consumers regard user generated content (UGC) as produced by people in their social circle rather than professionally created

advertisements, thus increasing customer trust in the information they post (Rizomyliotis et al., 2024).

Furthermore, it has been found that short content of videos always helps in enhancing the brand value and probability of purchase, especially if it meets the needs and wants of the Gen Z population in the future (Shen & Wang, 2024). The media through which these videos are published are also famous for Gen Z, whose reactivity is in line with time-generated metrics to collect a vast amount of content within a limited period (Shen & Wang, 2024; Rizomyliotis et al., 2024). As a result, it is future-proof to leverage short-form videos and other UGC and develop a flawless marketing niche that would be attractive to Gen Z consumers in particular. Finally, a study by (Dogbe et al., 2024) reveals that Digital marketing strategies such as social media, email, and mobile marketing enhance consumers' intentions to purchase significantly. This reinforces the argument that increased efforts in digital marketing led to higher levels of consumer engagement, which in turn boosts purchase intentions (Addo et al., 2021).

This study, therefore, opined that.

H1: Digital marketing has a direct positive effect on the purchase intention of EVs among Gen Zs.

H2: Digital marketing has a negative effect on the perceived risk of EVs among Gen Zs.

The conceptual framework showing the hypothesized relationships is shown in Fig 1.

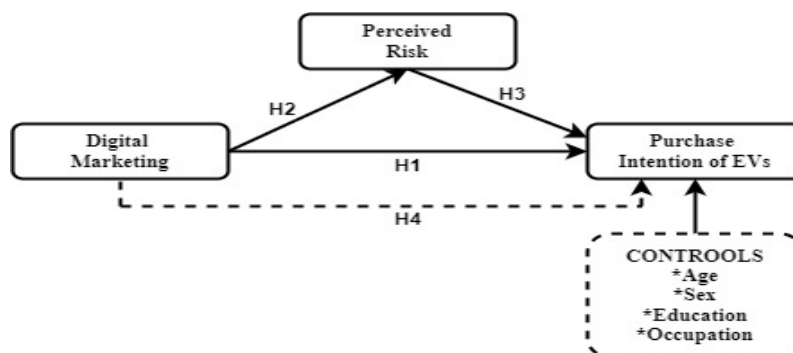


Fig 1 *Conceptual Framework*

2.3 EV perceived Risk Affects the purchasing Intention of gen z

Perceived risk significantly influences Gen Z's purchase intention toward electric vehicles (EVs). Studies have shown contrasting perspectives on the impact of perceived risk, with some indicating a negative effect on purchase intention (Gunawardane & Dk, 2019), others highlight its moderating role in the relationship between emotional value and consumer attitude, some research indicates that greater risk perceptions may not necessarily lead to decreased behavioral intentions (Hewapathirana et al., 2022; Ivanova & Moreira, 2023). Factors such as functional risk, social risk, consumer perception of danger, emotional influences, and personal norms and psychological risk associated with EVs can influence consumers' decision-making processes and attitudes toward adoption (Gunawardane & Dk, 2019). Additionally, the perceived risk associated with the uncertainty of EV performance and social acceptance can shape Gen Z's

attitudes and intentions toward purchasing electric vehicles (Hansaram et al., 2024). Understanding and addressing these perceived risks are crucial for manufacturers, policymakers, and marketers in mitigating and promoting the adoption of EVs and sustainable transportation practices Gen Z's.

H3: Perceived risk has a negative effect on the purchase intention of EVs among Gen Zs.

2.4 Mediating role of perceived risk on the relationship between digital marketing and purchasing intention

Consumer's perception of risk determines how much they buy, especially in internet marketing. According to research, perceived risk, including functional, social, and financial risks, can moderate the association between consumer attitudes and purchase intentions (Gunawardane & Dk, 2019; Hewapathirana et al., 2022). Similarly, it has been emphasized that perceived risk about innovative products such as alternative fuel (electric) vehicles have a significant role in shaping customers' attitudes and thus influencing their behaviors towards them. Finally, some articles studied how perceived values relate to consumer attitudes when confronted by perceived risk; this highlights the importance of addressing consumers' perception of risk to positively influence their purchasing thoughts and views (Hewapathirana et al., 2022). Concerning digital marketing, awareness of managing and reducing perceptive risks can be important for promoting optimistic customer attitudes, thus affecting buying decisions. With efficient marketing techniques, companies that are aware of and control their own perceived risks can turn these possible drawbacks into advantages that set apart their offerings from those of many competitors in the market and foster the trust and integrity that characterize highly successful businesses.

H4: Perceived risk mediates the relationship between digital marketing and purchase intention of EVs among Gen Zs.

3. Methodology

3.1 Research Design and Paradigm

This study uses a quantitative research approach to examine the factors and relationships between digital marketing, perceived risk, and the purchase intentions of electric vehicles (EVs) among Gen Z. The quantitative approach was used for this research because the system of measurement of these variables can be well applied in this type of research to establish correlations and to generalize the results from a sample to the whole population (Creswell, 2014). This paradigm is suitable for the study because it aims to identify cause and effect relationships between the research variables, hypothesis testing, and use quantitative information for more factual, quantitative analysis. By so doing, this research will be able to give conclusions that will support Gen Z's intention to purchase EVs influenced by digital marketing and perceived risk.

3.2 Sampling Size and Sampling Procedure

The target population used for this study was Gen Z individuals who were (born between 1995 and 2012) and are potential consumers of electric vehicles. A convenience sampling technique was used to select 382 respondents in Ghana to participate in the survey. This method

was chosen due to its ease of access for getting the targeted age group online and the cost-effectiveness of using online platforms. The population was first-degree university students since most fall under the target group.

3.3 Measures and Data Collection Procedure

A structured questionnaire was used to gather data on demographic information, digital marketing exposure, perceived risk, and purchase intention for electric vehicles. It covered age, gender, education, digital marketing channels, perceived risks associated with purchasing electric cars, and purchasing intention. This study used Likert scales (ranging from 1 - Strongly Disagree to 5 - Strongly Agree) to measure the responses to digital marketing effectiveness, perceived risk, and purchase intention.

The questionnaire was made up of four (4) sections. Section A contained age, sex, occupation, marital status, and educational background. Section B contained questions on digital marketing, Section C contained questions on perceived risk, and Section D contained questions on purchasing intention. The observed items under digital marketing were adapted from (Bana-Behbahani and Develi, 2023), perceived risk was also adapted from (Al-Maja U, 2020; Raza et al., 2022), and items under purchasing intention were adapted from (Karazoun and Alhussein, 2023). Latent variable digital marketing had five items, perceived risk had five items, and purchasing intention had five items. Each item was answered from the Likert scale of 1 (strongly disagree) to 5 (strongly agree).

The questionnaire was hosted through Google Forms online, and the link was distributed to the target population through social media platforms, email, and other online communities. All responses were screened for completeness and consistency during the data-clearing process to ensure data integrity. Any incomplete or duplicate responses were excluded to maintain the dataset's quality. The data was collected between June 19, 2024, and July 20, 2024, and a total of 382 valid responses were collected (100%).

The collected data was imported into a CSV file and analyzed using statistical software (SPSS). The demographic characteristics of respondents shows that more than 80% were between 18-25 years, with 17.28% and 2.09% for those between 14-17 and 26-29 years respectively. Majority (83.77%) were males, most of which were single (89.01%). In terms of Occupation, 21.99% were unemployed, 24.08% working in the private sector while 53.93% worked in the public sector.

3.4 Ethical Considerations

Data was collected after the research received a green light from the University's Ethics Committee. The Participants were offered complete information on the subject and goal of the study, and the Participants gave signed consent. Data were collected using Google Forms, which were secure and encrypted. The participants could complete the questionnaire using social media, e-mails, or online communities; thus, it was devoid of any pressure or coercion.

3.5 Exploratory Factor Analysis

EFA is a helpful device for researchers as it reveals that other factors, which are not directly observable, impact the measured variables (Mu et al., 2022). The research focus in this study was, therefore, Digital Marketing (DM), Perceived Risk (PR), and Purchase Intention (PI). EFA

was used to determine the dimensionality of these factors with items loading less than 0.5 deleted shown in Table 1. As a result, three components were retained: The questionnaires involved five items under the digital marketing construct, five under the perceived risk construct, and five under the purchase intention construct. The total variance explained (TVE) by these components was 68.61%, above the cut-off of 50%. Also, we have calculated the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for this analysis, which is higher at 0.898 and in line with the benchmark requirement of 0.6 (Cleff, 2015).

Table 1 *Exploratory Factor Analysis (EFA)*

Measurement Items	Components		
	1	2	3
DM1	.754		
DM2	.758		
DM3	.707		
DM4	.693		
DM5	.758		
PR1		.889	
PR2		.867	
PR3		.863	
PR4		.854	
PR5		.798	
PI1			.813
PI2			.777
PI3			.723
PI4			.754
PI5			.748

Bartlett's test of sphericity was also significant ($\chi^2 = 1657.985$, $df = 10$, $sig < 0.0$); this suggests an adequate level of correlation that could warrant the use of factor analysis (Field, 2013). The determinant of the correlation matrix was 0.0003, which is more than zero, further meaning that it is positively defined and, hence, suitable for factor analysis (Field, 2013). These results validate the use of EFA and support the presence of three distinct latent constructs: Digital marketing, perceived risk, and purchase intention.

3.6 Confirmatory Factor Analysis (CFA)

The next step was to carry out a CFA because it checks the factor structure obtained from the EFA. According to Solberg et al., (2022), CFA is a robust statistical approach with the potential to determine the relationships between the measured variables and the marketing constructs that underpin them. This method assists in validating if the theoretical model obtained from the EFA holds ground in the current data set (Li, 2021). The results of the CFA shown in Fig 2 indicates that all standardized factor loadings are significant than (CMIN/DF=2.371; GFI=.822; TLI=.916; CFI=.925; RMSEA=.061; RMR=.057)

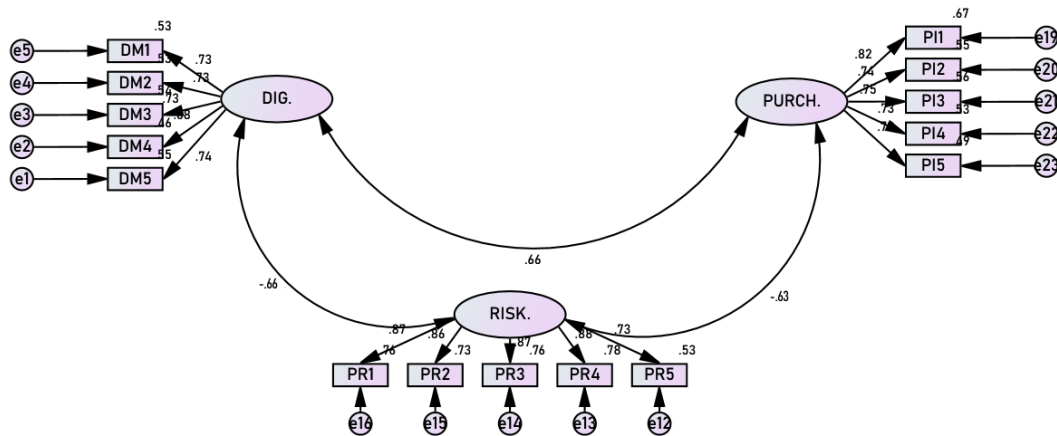


Fig 2 *Confirmatory Factor Analysis*

The Cronbach's Alpha (CA) test was also performed using the retained measurement items. The results indicated that all latent variables—Digital Marketing (DM), Perceived Risk (PR), and Purchase Intention (PI)—achieved CA values above the minimum threshold of 0.7, confirming strong internal reliability among the items. In line with (Fornell and Larcker, 1981), all the CR values for the constructs were above 0.7, while the AVE values were above 0.5, which suggests that the model had sufficient convergent validity.

Moreover, some metrics were calculated to evaluate the model fits suggested by (Hair et al., 2010). Values used include CMIN/DF below 3, GFI above the 0.80 level, TLI and CFI over the 0.90 level, and RMSEA and RMR below the 0.08 level. As shown in the model-fit summary, the results indicated an acceptable model fit: CMIN/DF = 2.371, GFI = .822, TLI = .916, CFI = .925, RMSEA = .061, RMR = .057. All the fit indices meet the recommended criteria, which provided evidence that the collected data fits nicely into the tested hypothesized model. In conclusion, this study's findings on the factor structure are in accordance with those identified by the EFA. Resultantly, the reliability of all three constructs – Digital Marketing, Perceived Risk, and Purchase Intention were found to be satisfactory reliability, convergent validity, and model fit.

3.7 Normality and Discriminant Validity Tests

As a measure of distribution, the tests for skewness and kurtosis were conducted to test the normality of the distribution. To qualify a distribution as standard it is expected that the skewness to be +/- 2 and kurtosis to +/- 7 (Hair et al., 2010). The scores obtained in this finding indicates that all variables had close to normal distribution and the values in the acceptable range. The distributions for the key variables are; DIG (Mean = 3.572, SD = .854, Skewness = -.612, Kurtosis = -.031); RISK (Mean = 2.890, SD = 1.010, Skewness = -.386, Kurtosis = -1.295); PURCH (Mean = 3.865, SD = .729, Skewness = -1.604, Kurtosis = 2.455);

4. Results

The study path diagram gives details of the relationships among three latent variables (Digital marketing, Perceived risk, And Purchasing intentions) and their respective observed indicators.

Table 2 gives a Relationship Analysis of Age, Sex, Education, Occupation, DIG, and RISK influencing PURCH behavior. This paper elaborates on the concept of purchase intention for electric vehicles and how digital marketing and perceived risk affect purchasing intention among Gen-Z.

Table 2 Path Coefficients

Paths	Unstd. Estimates	S. E.	C. R.
Age → PURCH	-0.112	0.109	-1.028
Sex → PURCH	-0.115	0.105	-1.094
Educ → PURCH	0.289	0.104	2.768**
Occup → PURCH	-0.018	0.040	-0.450
DIG → PURCH	0.728	0.119	6.118**
RISK → PURCH	-0.915	0.107	-8.551**
DIG → RISK	-1.073	0.088	-12.193**
Indirect Effect		LBC	UBC
DIG → RISK → PURCH	.982	.628	1.916

Bootstrap Bias-Corrected Confidence Interval at 95%; **-Sig. at 1%

The direct relationship between Digital Marketing (DIG) and Purchase Behavior (PURCH) is strong and statistically significant. The unstandardized estimate of 0.728 and a critical ratio (C.R.) of 6.118 suggest that digital marketing has a positive and significant direct effect on purchase intention, supporting hypothesis 1. This finding indicates that Gen Z individuals more engaged with digital platforms are more likely to consider purchasing EVs (Fig 3).

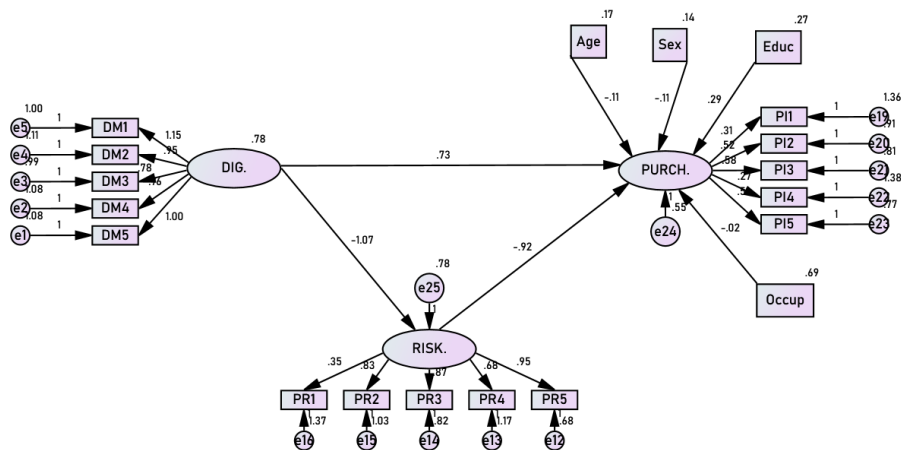


Fig 3 Structural Equation Model

The analysis also shows a significant negative relationship between Digital Marketing (DIG) and Perceived Risk (RISK), with an estimate of -1.073 and a C.R. of -12.193. This result, therefore, validates hypothesis 2. The data imply that extensive digital activities in sharply defined campaigns, social networks, or content contribute to a similarly sharp decline in perceived risk related to the purchase of EVs.

Also, the model displays statistical evidence that Perceived Risk (RISK) has negative effects on Purchase Behavior (PURCH), which supports hypothesis 3. The unstandardized estimate of 0.915 and a highly significant C.R. of -8.551 suggest that purchasing intention reduces as perceived risk significantly increases. When perceived risk decreases, the purchase intention is increased. This brings out the need to create awareness of any issues or uncertainties hindering Generation Z's adoption of EVs.

The table also demonstrates the indirect effect of Digital Marketing on Purchase Behavior through Perceived Risk. The estimate of this indirect effect is 0.982, with a lower bound confidence (LBC) of 0.628 and an upper bound confidence (UBC) of 1.916, indicating a positive and statistically significant mediation. This supports the idea that perceived risk mediates the relationship between digital marketing and the purchase intention of EVs among Generation Z, which also supports hypothesis 4. Digital marketing has a direct positive effect on purchase intention and reduces perceived risk, which further increases the likelihood of purchasing EVs.

In conclusion, the analysis supports the hypothesis that digital marketing positively influences Generation Z's purchase intention for EVs, directly and indirectly, by reducing perceived risk. Perceived risk, in turn, has a significant negative impact on purchase intention. These findings underscore the importance of digital marketing strategies in promoting EVs and addressing perceived risks to drive purchase decisions. Enhancing digital Marketing can thus be crucial in increasing EV adoption among Gen Z by building consumer confidence and reducing uncertainties.

5. Discussions and theoretical implication

The conclusions derived from the current study afford specific significant theories concerning the impact of digital marketing and perceived risk on the purchase intention of electric vehicles among African Gen-Z consumers. The findings confirm other theoretical accounts, which stress the role of Information Technology in the construction of many contemporary consumer practices, especially among younger consumers in Africa. Gen Z in African countries is highly receptive to any marketing activities carried out through digital channels. The results clearly show that digital marketing influences Gen Z's purchase decisions directly and indirectly within the African context.

First, the direct positive influence of digital touchpoints, including adverts, social media, influencers, and reviews, indicates that interaction with digital content significantly influences African Generation Z's purchasing decision of an EV. This effect can be attributed to the generation's dependency on the internet, specifically social media networks, for information, decision-making, and social approval in the African setting. Therefore, the positive and significant coefficients strengthen the notion that firms must dedicate ample attention to digitally integrated marketing communication applications in the quest for the above target demographic in Africa.

Second, it emerges that digital marketing lowers perceived risk—a significant concern factor that might stunt the growth of new technology such as EVs in African markets. That the level of engagement correlates inversely with perceived risk means that properly informing and reassuring customers with digital content can reduce their uncertainty related to EVs. This is important since Gen Z consumers of automotive products in Africa may be preoccupied with electric cars' costs, usability, and durability within the context of African infrastructure and economic conditions. Contending that perceived risks are one of marketers' key concerns when promoting EVs, the author shows that by using web-based technologies to disseminate clear information about the benefits of EVs and possible risks associated with their use, marketers can manage such risks more effectively in African markets.

Third, the negative impact of perceived risk on the purchase intention aligns with the general theoretical framework that posits that those with higher perceived risks tend to have lower purchase intention and often do so in high-involvement products such as EVs. The highly significant negative coefficients in the analysis support the effort to break psychological and informational hurdles to purchasing among African Gen-Z consumers. Since Gen Z might see EVs as a massive financial or practical investment, meeting these considerations becomes essential for this generation in Africa, where economic factors and infrastructure challenges may amplify perceived risks.

Last but not least, it also proved that perceived risk plays a moderate role between digital marketing and purchase intention and confirmed that digital marketing, directly and indirectly, affects purchase intention by lowering the perceived risk. This mediation effect is significant, as it underscores the dual role of digital marketing: It creates awareness and interest and acts as a solution to issues that might prevent its purchase. For marketers, this means that digital marketing needs to be holistic, whereby marketers aim to promote their products and are willing to educate their clients and help them minimize associated risks specifically tailored to the African context.

Theoretical Implications

The findings of this study extend the research on consumer attitude in the social media context and digital marketing regarding EVs, especially focusing on African Gen-Z consumers. The research supports and builds on past theories to show that digital marketing, directly and indirectly, influences purchase intention in the African market.

First, the results reflect the Theory of Planned Behavior (TPB) that presupposes that intentions and behaviors can be explained with the help of such factors as an attitude towards the activity, perceived norms, and an individual's perceived control. In so doing, digital marketing boosts positive attitudes toward EVs, promotes social influence, and increases perceived behavioral control by diminishing risk and uncertainty among African Gen-Z consumers. The study's conceptual framework can comfortably accommodate the strong relationship between digital marketing and purchase intention, highlighting digital marketing as an influential factor in consumers' attitudes and behavior in today's digital world within Africa.

Second, the study provides evidence and elaborates on the Technology Acceptance Model (TAM), where perceived risk is central to consumer acceptance of innovative products like EVs. In its basic formulation, TAM identifies perceived usefulness and ease of use as critical

determinants of usage intentions; this research contributes to the literature by including perceived risk as a negative moderator of the adoption process in the African context. From the analysis of perceived risk brought about by digital marketing, it is evident that marketers can control perceived risk, thus making new technologies more acceptable to risk-shy consumers in Africa.

Finally, the research fills the gap in knowledge regarding the effect of digital marketing on the buying behavior of consumers, especially Gen Z in African countries. This group, marked by its constituting components of sparse use of traditional media and total dependence on networking platforms, represents a generational shift of consumer behavior toward product or service brands, toward sources of information, and even their purchasing attitudes and decisions. Therefore, the results are consistent with emerging literature on the use of digital marketing tools to reach this generation in a manner relevant to scholars and practitioners in the African context.

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6. Practical Implications

This paper offers practical implications for marketers, businesses, and other stakeholders interested in the Gen Z population in Africa, especially in the electric vehicle (EV) ecosystem on the continent. Marketing to this demographic, which is fully immersed in digital platforms, needs to be carried out creatively and tailored to the target's interests, addressing their concerns and potential fears specific to the African context.

First, digital marketing has been found to have an enormously positive direct relationship with purchase intention, which means that firms operating in Africa must earmark a considerable chunk of their marketing budgets towards digital marketing. It is imperative to focus on digital communication and engagement plans, including social media, influencer

marketing, online ads, and engaging content that resonates with African youth.

Second and most notably, the study uncovers that digital marketing effectively minimizes perceived risk, which remains a critical barrier to increased EV adoption in Africa. Generation Z consumers in Africa may have anxieties towards EV technology, including battery power, charging infrastructure, durability, and usage cost specific to African conditions.

Third, the perceived risk harms the purchase intention, implying that risk reduction should be a primary concern for marketers in Africa. Companies need to focus on the threats that directly eliminate the chances of consumers purchasing EVs.

Fourth, since perceived risk influences the relationship between digital marketing and purchase intention, it is clear that digital marketing strategies must adopt a dual approach tailored to African consumers. Components should directly relate to potential buyers' concerns and hesitations by providing explanatory and stimulating content relevant to the African context. Marketers need to pay particular attention to the fact that, unlike traditional advertising paradigms for digital campaigns, obstacles are not only perceived but communicated and, therefore, should be addressed as such in African markets.

Finally, the findings conclude that strong synergy between EV manufacturers, marketers, and online platforms is essential in formulating a strategic marketing approach in Africa. Involving people who are close to the audience and who share their beliefs can also contribute to sending the message to African Gen Z.

7. Conclusion

The study shows that digital marketing not only directly impacts purchase intention but also moderates perceived risks concerning the use of EVs among African Gen-Z consumers. Gen-Z information searches are primarily conducted online for all sorts of decisions, and therefore, ensuring digital marketing becomes a strategic weapon in advancing EV adoption in Africa.

However, perceived risk continues to act as a hindrance to purchase intention in African markets. This fear of the practicality of use, the cost of the technology, and the reliability of electric vehicles can erode the interest of consumers in African countries. Still, digital marketing can reduce this by providing consumers with clear, compelling information tailored to the African context. Thus, it was found that the reduction of perceived risk emerged as an important factor in changing intention to purchase into an actual purchase, and thus, the use of digital marketing was found to be twofold important to converse with consumers and allay their unexpected doubts in Africa.

8. Limitations and suggestions for further research

The limitations of this study are consolidated in the fact that it is conducted solely among Generation Z in Africa and only measures purchase intention instead of actual purchases. The findings of this study should be extended to a broader range of demographics within African markets; actual purchase behavior should be evaluated through longitudinal research, and the possible differences in markets geographically should be looked at across different African regions. Moreover, the further breakdown of distinct elements of digital marketing techniques and the second and third levels of perceived risk in combination with psychological factors such as trust and brand loyalty would give a more robust insight into drivers of EV adoption in the African

context. Overcoming these limitations will improve the understanding of consumers' behavior and enhance strategic marketing communication efforts targeted at African consumers.

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