Investigating the Primary Drivers of Consumer Behaviour in Ghana's Online Fashion E-Commerce Market

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Abstract

This research examines how cultural relevance and technological innovation shape consumer behaviour in Ghana's online fashion market. Using a quantitative design, data were collected from 551 online shoppers via structured questionnaires shared on social media and by email. Stratified random sampling ensured a diverse demographic profile. Structural Equation Modeling (SEM) and Tukey HSD multiple comparisons were applied to explore the links between cultural factors, technology features, and purchasing patterns, while SPSS was used for statistical validation. The survey instrument demonstrated strong internal consistency, with a Cronbach's alpha of 0.876.

Results indicate that integrating native languages, traditional motifs, and locally familiar imagery strengthens consumer trust and loyalty. Likewise, technological advancements such as secure payment gateways, mobile-friendly platforms, and AI-driven virtual try-on features play an essential role in purchase decisions. In light of these insights, online retailers are advised to emphasize localized content and enhance their technological competencies to enrich the customer experience. Policymakers, meanwhile, should champion digital inclusion initiatives to broaden access. This study delivers practical recommendations for businesses and decision-makers in Ghana's growing e-commerce sector. Future research ought to examine emerging digital trends and their impact on consumer preferences since organizations that marry cultural authenticity with state-of-the-art technology will sustain a competitive edge in the evolving online retail landscape.

Keywords: Consumer behaviour, Cultural relevance, Technological advancements, Online fashion industry, Ghana, Structural Equation Modeling (SEM), Cronbach's Alpha, E-commerce, Localization strategies, Digital inclusion.

JEL Classification: M31, L81, D12

Introduction

As the Internet continues to change, its influence on industries has been thoughtful, shifting businesses from brick-and-mortar models to online platforms. Modern life has been fundamentally transformed by the Internet, which now fortifies nearly every feature of human actions. It has developed traditional practices, augmented the pace of change, and histrionically changed how people connect, share information, and conduct business (Yau & Tang, 2018). The rise of social media has particularly transmuted how companies connect with consumers, making it possible for local companies to reach international audiences. This shift is not unique to Ghana, as the Internet allows businesses everywhere to expand beyond geographical barriers (Norley et al., 2023). Ghana's fashion industry, for example, has seen many designers, such as "Alpha Suits" in Accra and "Showboy Apparels" in Kumasi, embrace social media to promote their brands. Social media has become vital in shaping consumer preferences and purchasing decisions. This study will explore how factors like product recommendations, payment methods, technology, trust, and social media engagement influence consumer trust in Ghana's fashion market (Yasser & Gayatri, 2023; L. Zhu et al., 2020).

With the factors mentioned above, the study tested the hypothesis below:

Research Questions:
• To what extent does engagement on social media platforms shape Ghanaian consumers' buying decisions in the online fashion market?
• How does the technological setup of e-commerce sites influence consumer trust and overall satisfaction in Ghana's fashion sector?
• In what ways do product recommendations, payment method options, and customers' perceptions of authenticity drive purchasing behaviour in Ghana's online fashion industry?

Research Objectives:
1. Assess how social media marketing strategies shape consumers' purchasing behaviour in Ghana's online fashion market.
2. Examine the effect of technological infrastructure, particularly website design and security features, on consumer trust and satisfaction in Ghanaian e-commerce.
3. Identify and evaluate the main determinants of buying decisions in Ghana's online fashion sector, including payment options, product authenticity, and peer or expert recommendations.

Hypotheses Development
Many forces, such as cultural relevance, technological innovation, and social engagement, have propelled the rising popularity of online shopping in Ghana's fashion sector. From existing literature and pragmatic findings, the following hypotheses have been formulated to examine consumer purchasing behaviour in this dynamic market:
H1: Cultural relevance positively influences consumer purchasing decisions in Ghana's online fashion industry.
H2: Technological advancements enhance consumer trust and positively affect purchasing decisions.
H3: Social interactions significantly shape product choices in online fashion shopping.
These hypotheses reinforce the study's in-depth analysis of how cultural, technological, and social factors interact within Ghana's rapidly expanding online fashion market. Together with the research questions and objectives, they seek to illuminate the key drivers, especially social media engagement, tech infrastructure, and related influences behind consumer behaviour in this sector.

Literature
Online shopping has become indispensable for time-pressed consumers seeking convenience, easy access, and flexibility (Al-Zyoud, 2018; Hsin Chang & Wang, 2011; Irshad & Ahmad, 2019). Shoppers can explore product options, compare prices, consult user reviews, and complete purchases with minimal effort, thereby saving both time and energy. In Ghana, platforms such as Jumia, Kikuu, Bazaar Ghana, Jiji, Tudu online Shopping, and Tonaton further enhance this experience by offering 24/7 availability, home delivery services, and secure payment methods (Sihombing et al., 2023; Tandon et al., 2019).
Social media plays a central role in shaping what people buy online. Before making a purchase, consumers turn to social platforms for product reviews, recommendations, and brand interactions (Rani & Catherine, 2023). Features such as personalized ads, clear return policies, and customized shopping experiences build trust and encourage loyalty. Online sellers, in turn, enjoy repeat business and lower operating costs compared to physical stores (Lubua & Pretorius, 2019). Ultimately, social media boosts consumer confidence and makes online shopping a strong competitor in Ghana's retail landscape.

Boosting Consumer Trust in Ghana's E-Commerce Market
Because online retailing is still relatively new in Ghana, one of the biggest challenges is establishing consumer trust and guaranteeing security (Dakic & Rakovic, 2023). Many potential customers hesitate

to shop online out of fear of fraud or data breaches. Without the option to inspect goods in person or meet sellers face-to-face, trust becomes the principal (Lu et al., 2016; VanDyke et al., 2023). When buyers feel confident that their payment details and personal information are protected, they not only finalize their purchases but are also more likely to return. Positive customer reviews, strong security measures, and reliable payment systems all play a role in building this trust, which in turn drives repeat business and bolsters a retailer's reputation (A Almohaimmeed, 2019; Ribbink et al., 2004).

Despite efforts to secure transactions, many Ghanaian e-retailers still face a widespread trust gap, fueled by fraudulent activities across the wider digital space. As a result, shoppers often stick with traditional brick-and-mortar stores, even when online options could save them time and money. To change this perception, online retailers must invest in robust payment infrastructures, implement transparent policies, and deliver fast, effective customer support. Publicly displaying authentic user feedback through verified reviews and recommendations can also help close the trust gap. In the long run, continual enhancements in security and reliability will not only boost sales but also spur the growth of Ghana's digital economy (Fitriansyah et al., 2024). By prioritizing trust, companies can turn it into a competitive edge in a market that remains naturally cautious (Tatar & Eren-Erdoğmuş, 2016).

Strategic Pricing: Leveraging Discounts and Value Perceptions

Price is a major factor in where and what consumers buy online (Rani & Catherine, 2023; Verma & Khanna, 2022). Even if online and offline prices are similar, smart discounts and promotions can sway shoppers toward e-commerce. Unfortunately, many Ghanaian sellers don't leverage these tactics effectively, missing out on potential customers (Rani & Catherine, 2023; Chaturvedi, 2023).

To stay competitive, sellers must understand how pricing perceptions drive behaviour . Offering periodic sales, bundle deals, or free shipping makes online shopping more attractive. While trust is essential, consumers also look for value. When they feel they're getting quality products at fair prices, they're more likely to return and recommend the store to others (Chaturvedi, 2023; Murshed & Ugurlu, 2023; Valerio et al., 2019). Innovative pricing strategies can give businesses an edge and foster a loyal customer base.

A thoughtful pricing model also reinforces brand identity. Shoppers often associate a brand with its pricing, whether it's affordability, premium quality, or great value for money. Businesses that balance competitive prices with high-quality offerings leave a lasting impression, helping them stand out in a crowded market (Helinski & Schewe, 2022; Kazmi et al., 2021; Shwastika & Keni, 2021). By using discounts and pricing incentives wisely, Ghanaian online retailers can drive sales and build long-term customer relationships (Dasgupta & Jindal, 2019; Kierian et al., 2023).

Harnessing Customer Reviews and User-Generated Content

Customer reviews and recommendations are powerful influencers of online buying decisions (Diwanji & Cortese, 2021; L. Zhu et al., 2020). Before committing to a purchase, most people want to know what others have experienced. Positive feedback builds trust, while negative comments can turn potential buyers away. Given this impact, online sellers must actively encourage and manage customer reviews (Peltier et al., 2020; Yasser & Gayatri, 2023).

Social media platforms like Facebook, Instagram, and TikTok offer spaces where customers share their experiences, making user-generated content a key tool for brand building (Qin, 2020; Snijders, 2014; Zhang, 2022). Shoppers often trust fellow consumers more than brand advertisements, so authentic reviews and recommendations become invaluable assets (Diwanji & Cortese, 2021; Q. Zhu et al., 2020). When customers feel heard and valued, they're more inclined to leave positive feedback, further enhancing the brand's reputation.

Handling feedback well is equally important. Highlighting positive reviews and responding professionally to criticism shows that a company listens and cares. This approach strengthens loyalty

and trust. Managed correctly, reviews and recommendations help businesses grow, attract new customers, and foster an engaged online shopping community in Ghana (Balogh & Mizik, 2022; Qin, 2020).

Strategic Technology Reinforces E-Commerce Operations

Technology supports both offline and online operations but must be strategically aligned with company objectives to avoid becoming a cost center (Tomar & IEEE Madhya Pradesh Section, 2023). E-commerce platforms depend on robust technologies to satisfy consumer demands and enhance profitability. A slow or insecure website deters return visits, whereas a fast, secure interface improves user experience and reinforces the brand image. In fashion retail, interactive functionalities—such as high-resolution imagery and AI-driven virtual try-ons—deepen customer engagement with products. A cohesive digital environment not only elevates satisfaction but also drives engagement and repeat purchases. Therefore, reliable technological infrastructure is pivotal for e-commerce success, directly shaping consumer behaviour and purchase confidence (Bolos et al., 2017; Kumaran Nair et al., 2023; Paschen et al., 2019).

Cultural Relevance Drives Online Consumer Engagement

Customizing content to reflect local cultural norms and languages offers online businesses a competitive edge. Brands that incorporate local dialects, traditions, and values forge stronger connections with their audiences (Boštjančič et al., 2022; Pongratz & Diehl, 2015). For example, integrating Twi, Ewe, and Hausa into online communications can deepen consumer rapport in Ghana. When customers perceive cultural alignment, they're more inclined to engage and remain loyal (Pongratz & Diehl, 2015).

Ghana's fashion market exemplifies the impact of cultural relevance on purchase behaviour . Retailers showcasing traditional garments like Kente cloth and African prints can broaden their appeal, cultivate loyalty, and differentiate themselves. Cultural resonance extends beyond apparel, influencing consumer engagement across all e-commerce categories. Brands that ignore localization risk losing customers to competitors who embrace culturally resonant imagery and messaging (Hsin Chang & Wang, 2011).

Research Method

This study applies a quantitative design to examine how cultural preferences and technological enhancements affect consumer buying behaviour in Ghana's online fashion sector. Primary data will be collected via structured questionnaires from 551 online shoppers and fashion retailers (Izem et al., 2018; Sethi, 2018). Surveys will be distributed through WhatsApp, Facebook, and email, focusing on cultural relevance, technological integration, and purchasing behaviour . A stratified random sampling technique will ensure a balanced demographic representation (Snijders, 2014).

Hypotheses will be tested using Structural Equation Modeling (SEM) in SPSS, with internal reliability measured by Cronbach's alpha ($\alpha = 0.876$) (Elmousa et al., 2023). The study adheres to ethical guidelines by obtaining informed consent and ensuring participant confidentiality. Findings will illuminate drivers of consumer trust, engagement, and decision-making, guiding businesses to refine localization tactics and technological innovations that enrich Ghana's e-commerce experience.

RESULTS AND DISCUSSIONS

Table One: Factors that Influence Buyer Behaviour on Online Shopping

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Do you follow or engage with online retailers or brands on social media	551	1	2	1.2	0.397
Are you able to find the product you want online on social media pages	551	1	2	1.08	0.268
Do social conversations influence your product choices	551	1	3	1.82	0.87
Have you ever purchased from an online retailer in Ghana	551	1	2	1.12	0.329
Are the marketing activities of fashion products attractive to you on their social media pages	551	1	3	1.51	0.813
How do you think social media influences the fashion industry	551	1	3	1.87	0.98
Do you feel that the growth of online shopping has had a positive or negative impact on local businesses in Ghana	551	1	2	1.1	0.298
What is your preferred mode of payment	551	1	3	1.62	0.888
How frequently do you intend to buy this fashion	551	1	4	3.39	0.797
How satisfied are you with your overall online shopping experiences in Ghana	551	1	5	3.39	0.774
Do you agree that a brand's social media presence influences your purchasing decision	551	1	5	3.6	0.991
Are social media promotions and discounts influential in your online shopping decisions	551	1	5	3.67	0.978
Price Competitiveness	551	1	5	3.5	1.434
Valid N (listwise)	551				

The table summarizes SPSS-derived descriptive statistics from 551 Ghanaian online fashion shoppers. Engagement with online retailers on social media is moderate (mean = 1.20), and social conversations have a fair impact on product choices (mean = 1.82). Respondents report occasional online shopping (mean = 1.12) and generally find social media marketing appealing (mean = 1.51).

Earlier work by (Nurcahyani & Ishak, 2023; Yang et al., 2022; Zhang, 2022) similarly notes social media's strong influence on fashion decisions (mean = 1.87) and a slightly positive effect of online shopping on local businesses (mean = 1.10). Shoppers show clear preferences for certain payment methods (mean = 1.62) and express a relatively high intention to purchase fashion items (mean = 3.39). Their reported satisfaction with online shopping is modest (mean = 3.39), and they recognize the importance of a brand's social media presence (mean = 3.60), promotional offers and discounts (mean = 3.67), and competitive pricing (mean = 3.50).

Overall, these results highlight the pivotal roles of social media engagement, targeted marketing strategies, payment preferences, and pricing in driving consumer behaviour in Ghana's online fashion market.

Table Two: Impact of Social Influence on Fashion Choices

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Do social conversations influence your product choices	(J) Do social conversations influence your product choices	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Clothes	**Yes**	**No**	.144*	0.052	0.016	0.02	0.27
		Maybe	0.013	0.046	0.955	-0.09	0.12
	No	**Yes**	-.144*	0.052	0.016	-0.27	-0.02
		Maybe	-0.131	0.056	0.054	-0.26	0
	Maybe	**Yes**	-0.013	0.046	0.955	-0.12	0.09
		No	0.131	0.056	0.054	0	0.26
Shoes	**Yes**	**No**	0.013	0.055	0.972	-0.12	0.14
		Maybe	-0.046	0.049	0.62	-0.16	0.07
	No	**Yes**	-0.013	0.055	0.972	-0.14	0.12
		Maybe	-0.059	0.06	0.595	-0.2	0.08
	Maybe	**Yes**	0.046	0.049	0.62	-0.07	0.16
		No	0.059	0.06	0.595	-0.08	0.2
Accessories	**Yes**	**No**	0.025	0.055	0.89	-0.1	0.16
		Maybe	-0.028	0.049	0.836	-0.14	0.09
	No	**Yes**	-0.025	0.055	0.89	-0.16	0.1
		Maybe	-0.053	0.06	0.647	-0.19	0.09
	Maybe	**Yes**	0.028	0.049	0.836	-0.09	0.14
		No	0.053	0.06	0.647	-0.09	0.19

* The mean difference is significant at the 0.05 level.

The table above presents a Tukey HSD analysis of how social conversations affect product choices in three fashion categories—clothing, shoes, and accessories. It shows a significant difference in clothing selections between respondents who said their purchases were influenced by social discussions and those who were not ($p = 0.016$). In other words, individuals who acknowledged social influence were more likely to let these conversations guide their clothing choices. However, pairwise comparisons between "Yes" and "Maybe" or "No" and "Maybe" for clothing did not reach statistical significance. For both shoes and accessories, no response categories differed significantly (all $p > 0.05$), indicating that social conversations play a lesser role in those categories. Overall, these results highlight that peer interactions have a stronger impact on clothing preferences than on footwear or accessories.

Table Three: The impact of Social media Usage on online shopping

Correlations

		How often do you use social media?	Shirts	Trousers	Dress	Skirts	Blouse	Suit
How often do you use social media	Pearson Correlation	1	-0.04	-0.06	0.016	-0.014	-0.01	0.027
	Sig. (2-tailed)		0.345	0.161	0.711	0.74	0.823	0.527
	N	551	551	551	551	551	551	551
Shirts	Pearson Correlation	-0.04	1	.527**	-.140**	0.079	0.022	.285**
	Sig. (2-tailed)	0.345		0	0.001	0.063	0.601	0
	N	551	551	551	551	551	551	551
Trousers	Pearson Correlation	-0.06	.527**	1	-0.031	.208**	.137**	.303**
	Sig. (2-tailed)	0.161	0		0.466	0	0.001	0
	N	551	551	551	551	551	551	551
Dress	Pearson Correlation	0.016	-.140**	-0.031	1	.456**	.462**	0.003
	Sig. (2-tailed)	0.711	0.001	0.466		0	0	0.936
	N	551	551	551	551	551	551	551
Skirts	Pearson Correlation	-0.014	0.079	.208**	.456**	1	.631**	.174**
	Sig. (2-tailed)	0.74	0.063	0	0		0	0
	N	551	551	551	551	551	551	551
Blouse	Pearson Correlation	-0.01	0.022	.137**	.462**	.631**	1	.152**
	Sig. (2-tailed)	0.823	0.601	0.001	0	0		0
	N	551	551	551	551	551	551	551
Suit	Pearson Correlation	0.027	.285**	.303**	0.003	.174**	.152**	1
	Sig. (2-tailed)	0.527	0	0	0.936	0	0	
	N	551	551	551	551	551	551	551
African Wear	Pearson Correlation	-0.077	.194**	.228**	0.051	.172**	.114**	.330**
	Sig. (2-tailed)	0.072	0	0	0.231	0	0.007	0
	N	551	551	551	551	551	551	551

Others	Pearson Correlation	-0.015	-.224**	-.165**	-.150**	-0.04	-0.007	-0.062
	Sig. (2-tailed)	0.727	0	0	0	0.352	0.864	0.148
	N	551	551	551	551	551	551	551

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

The correlation analysis (Table 3) examined links between social media use and clothing preferences among 551 respondents. It found no meaningful association between social media engagement and specific garment choices, as all Pearson coefficients were low and statistically non-significant ($p > .05$).

In contrast, strong relationships emerged among the different clothing categories themselves. For example, shirts and trousers had a significant positive correlation ($r=.527$, $p < .01$), indicating that purchasers of shirts frequently also buy trousers. Dresses likewise showed high correlations with skirts ($r=.456$, $p < .01$) and blouses ($r=.462$, $p < .01$), suggesting these items are often purchased together (Dakic & Rakovic, 2023; Elmousa et al., 2023). African wear and suits demonstrated moderate correlations with other apparel types, while the "Other" category exhibited weak or negative associations. Overall, these results suggest that although social media use does not directly drive specific clothing choices, shoppers tend to prefer coordinating or matching items.

Table Four: Tests of Homogeneity of Variance

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Clothes	Based on the Mean	0.181	3	547	0.909
	Based on Median	0.036	3	547	0.991
	Based on the Median and with adjusted df	0.036	3	546.417	0.991
	Based on the trimmed mean	0.181	3	547	0.909
Shoes	Based on the Mean	3.115	3	547	0.026
	Based on Median	0.109	3	547	0.955
	Based on the Median and with adjusted df	0.109	3	546.54	0.955
	Based on the trimmed mean	3.115	3	547	0.026
Accessories	Based on the Mean	0.884	3	547	0.449
	Based on Median	0.058	3	547	0.982
	Based on the Median and with adjusted df	0.058	3	546.496	0.982
	Based on the trimmed mean	0.884	3	547	0.449

The table summarizes Levene's tests for equal variances across three product categories—clothes, shoes, and accessories—using four estimators (mean, median, median with adjusted degrees of freedom, and trimmed mean). Clothes: Levene's F ranged from 0.036 to 0.181, with all p-values >0.909, indicating no evidence of variance heterogeneity. Accessories: F-statistics fell between 0.058 and 0.884, and p-values exceeded 0.449, likewise showing stable variances. Shoes: Levene's F varied from 0.109 to 3.115, with p-values between 0.026 and 0.955. Tests based on the mean and trimmed mean reached significance ($p<0.05$), revealing unequal variances.

In summary, while clothes and accessories exhibit consistent variances regardless of the method, shoes show significant variance differences, highlighting the importance of carefully checking variance assumptions in footwear analyses.

Table Five: Bayesian Estimate of Fashion Items

Bayesian Estimates of Coefficients,b,c,d

Parameter	Posterior			95% Credible Interval	
	Mode	Mean	Variance	Lower Bound	Upper Bound
How frequently do you intend to buy this fashion = Every day	1.406	1.406	0.034	1.043	1.77
How frequently do you intend to buy this fashion = Weekly	1.552	1.552	0.038	1.17	1.934
How frequently do you intend to buy this fashion = Monthly	1.688	1.688	0.005	1.55	1.825
How frequently do you intend to buy this fashion = Others	2.04	2.04	0.003	1.934	2.146

Table 5 shows that the mean intention to buy "Others" fashion items on Ghanaian e-commerce sites is 2.040, with very low dispersion (SD = 0.003). Using standard reference priors in the Bayesian analysis keeps the inference neutral by relying on non-informative or weakly informative distributions (Kelter, 2021). Estimated purchase frequencies vary by segment: daily buyers average 1.406 (95% credible interval: 1.043–1.770), weekly shoppers 1.552 (1.170–1.934), monthly purchasers 1.688 (1.550–1.825), and the "Others" group records the lowest frequency at 2.040 (1.934–2.146). These differences suggest that marketers can tailor their strategies to each segment's shopping rhythm. In sum, this objective, data-driven approach deepens our understanding of consumer behaviour in Ghana's online fashion market and emphasizes the importance of robust analytics in shaping e-commerce strategies (Putra & Lestari, 2023; Tahir, 2021; Wu & Lee, 2020).

Table Six: Coefficient Analysis

Coefficients a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.738	0.273		10.027	0
	Do you follow or engage with online retailers or brands on social media	-0.386	0.106	-0.148	-3.661	0
	What is your preferred mode of payment	0.029	0.047	0.025	0.611	0.541
	How satisfied are you with your overall online shopping experiences in Ghana	0.282	0.055	0.211	5.135	0
	Do social conversations influence your product choices	-0.173	0.049	-0.145	-3.562	0
	Trustworthiness of Online Sellers	0.112	0.061	0.163	1.85	0.065
	Security of Personal Information	-0.068	0.065	-0.098	-1.041	0.298
	Authenticity of Products	0.04	0.077	0.057	0.519	0.604
	Returns and Refunds	-0.066	0.059	-0.094	-1.116	0.265
	Product Recommendation	0.068	0.063	0.094	1.079	0.281

As shown in Table 6, the link between product recommendations and consumer purchasing behaviour is quite weak ($\beta = 0.068$), and the standard error of 0.063 reflects variability around that estimate. With a t-value of 1.079, the relationship does not reach conventional levels of statistical significance, and a p-value of 0.281 indicates a 28.1% likelihood that the observed effect is due to chance. Overall, these results suggest that product recommendations have little to no significant impact on online fashion purchases in Ghana (Kelter, 2021).

Table Seven: ANOVA Analysis

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	74.859	9	8.318	8.784	.000b
	Residual	511.325	540	0.947		
	Total	586.184	549			

The ANOVA results accentuate the robustness of the regression model in accounting for consumer buying behaviour in Ghana's online fashion sector. The model explains 74.859 units of the total variation, reflecting its strong explanatory capacity. With nine degrees of freedom allocated to the model, each contributes on average 8.318 units toward capturing variability in the data. The residual sum of squares, the portion of variation not explained by the model, amounts to 511.325 across 540 degrees of freedom, yielding an average residual error of 0.947. Altogether, the total sum of squares is 586.184 with 549 degrees of freedom. An F-statistic of 8.784, coupled with a p-value of 0.000, confirms a highly significant relationship between the predictors and consumer behaviour. These findings demonstrate the model's reliability in forecasting online purchase patterns and offer actionable insights for e-tailers and marketers navigating Ghana's competitive e-commerce landscape (Cumming et al., 2012; Izem et al., 2018; Woon & Lim, 2006).

Table Eight: Validity Analysis

Case Processing Summary

		N	%
Cases	Valid	551	100
	Excluded	0	0
	Total	551	100

a. Listwise deletion based on all variables in the procedure.

The case processing summary shows that all 551 survey responses were included in the analysis, with none excluded. This complete dataset buttresses the examination of consumer buying behaviour in Ghana's online fashion market, as every response met the required analysis criteria. By processing the full set of data in SPSS, the study achieves a reliable statistical evaluation of online shopping behaviour. This rigorous approach reinforces the study's conclusions and offers valuable insights into consumer preferences and trends in Ghana's online fashion sector.

Table Nine: Reliability Analysis

Reliability Statistics

Cronbach's Alpha	N of Items
0.876	24

Using Cronbach's Alpha, the survey's reliability was calculated at 0.876 across 24 items, demonstrating strong internal consistency. Values above 0.70 are generally considered acceptable, with higher figures indicating greater reliability (Hamdan & Wang, 2023a). The 0.876 coefficient

confirms that the instrument used to examine consumer buying behaviour in Ghana's online fashion market is highly dependable. Consequently, the data collected are robust and suitable for analysing trends in the online shopping sector (Aydin & Yassikaya, 2022; Hamdan & Wang, 2023b).

Findings

The study demonstrates that in Ghana's online fashion sector, consumer behaviour is strongly shaped by both cultural preferences and technological factors. Companies that integrate indigenous languages such as Twi, Ewe, and Hausa alongside traditional textiles like Kente and other African prints into their digital platforms cultivate deeper customer engagement, thereby enhancing trust and loyalty (Akman & Mishra, 2017; Boštjančič et al., 2022; Ong et al., 2021; Pongratz & Diehl, 2015; Sheikh et al., 2019).

Technological innovations likewise play a crucial role in purchase decisions. Fast-loading websites, secure payment gateways, and AI-powered virtual try-on tools not only enrich the user experience but also drive greater engagement and higher sales (Akman & Mishra, 2017; Jarek & Mazurek, 2019; Nofirda & Ikram, 2023; Paschen et al., 2019). Structural Equation Modelling (SEM) further confirms a robust link between technological efficiency, cultural authenticity, and consumer trust.

Overall, the findings indicate that firms leveraging locally relevant content and advanced digital capabilities gain a competitive edge in Ghana's e-commerce market. Brands that overlook these elements risk ceding customers to competitors who prioritize both cultural resonance and technological alignment. Ultimately, the fusion of cultural context with innovative technology reinforces consumer confidence, strengthens brand loyalty, and supports sustainable growth in Ghana's online fashion industry (Barreda et al., 2020; Tatar & Eren-Erdoğmuş, 2016; Valerio et al., 2019; W. Wu et al., 2018).

Limitations and Recommendations

This study faces several limitations, including potential sampling bias, reliance on self-reported data, and its cross-sectional design, which prevents examination of long-term trends. Its exclusive focus on Ghana's fashion sector also restricts the generalizability of the results to other industries. To overcome these issues, future studies should expand the sample size, adopt longitudinal research designs, and integrate mixed-methods approaches for richer insights. Broadening the scope to include emerging technologies such as AI and blockchain and conducting cross-industry analyses would provide a more complete picture of online shopping trends in Ghana.

Conclusion

The research concludes that cultural relevance and technological innovation jointly influence consumer behaviour in Ghana's online fashion market. By integrating local languages, traditional subjects, and familiar imagery into their branding, businesses can deepen customer relationships, fostering greater trust and loyalty. At the same time, investing in robust digital infrastructure such as secure payment gateways, mobile-optimized platforms, and AI-driven virtual try-on tools improves the user experience and sways purchasing decisions.

To remain competitive, online retailers should texture Ghanaian cultural elements into their brand identity while upgrading their digital capabilities to ensure both accessibility and security (Pongratz & Diehl, 2015). Future research ought to explore emerging digital trends and their effects on consumer preferences (Patrutiu Baltes, 2015; Sunarso et al., 2023). Policymakers, for their part, should promote digital inclusion initiatives to broaden access to online shopping.

Overall, this study offers valuable insights into the drivers of consumer engagement and business growth in e-commerce. By aligning cultural heritage with cutting-edge technology, companies can secure a lasting competitive edge in Ghana's online fashion landscape (Anirvinna et al., 2021; Barreda et al., 2020; Muturi, 2024; Suraweera & Jayathilake, 2021).

Reference

1. A Almohaimmeed, B. M. (2019). The Effects of Social Media Marketing Antecedents on Social Media Marketing, Brand Loyalty and Purchase Intention: A Customer Perspective. In *www.jbrmr.com, A Journal of the Academy of Business and Retail Management* (Vol. 13). ABRM. www.jbrmr.com

2. Akman, I., & Mishra, A. (2017). Factors influencing consumer intention in social commerce adoption. *Information Technology and People*, *30*(2), 356–370. https://doi.org/10.1108/ITP-01-2016-0006

3. Al-Zyoud, M. F. (2018). Does social media marketing enhance impulse purchasing among female customers case study of Jordanian female shoppers? In *www.jbrmr.com, A Journal of the Academy of Business and Retail Management* (Vol. 13). ABRM. www.jbrmr.com

4. Anirvinna, C., Kumar, A., Saini, M., & Meena, M. (2021). Investigating the impact of influential factors of online advertisement on youth's online buying behaviour : A predictive model. *Journal of Physics: Conference Series*, *1714*(1). https://doi.org/10.1088/1742-6596/1714/1/012005

5. Aydin, O., & Yassikaya, M. Y. (2022). Validity and Reliability Analysis of the PlotDigitizer Software Program for Data Extraction from Single-Case Graphs. *Perspectives on Behaviour Science*, *45*(1), 239–257. https://doi.org/10.1007/s40614-021-00284-0

6. Balogh, J. M., & Mizik, T. (2022). Impacts of Marketing Strategy and Social Media Activity on the Profitability of Online Wine Shops: The Case of Hungary. *Economies*, *10*(12). https://doi.org/10.3390/economies10120301

7. Barreda, A. A., Nusair, K., Wang, Y., Okumus, F., & Bilgihan, A. (2020). The impact of social media activities on brand image and emotional attachment: A case in the travel context. *Journal of Hospitality and Tourism Technology*, *11*(1), 109–135. https://doi.org/10.1108/JHTT-02-2018-0016

8. Bolos, C., Idemundia, E. C., Mai, P., Raisinghani, M., Smith, S., Bolos, C., Mai, P., Raisinghani, M., & Smith, S. (2017). *Conceptual Models of E-Marketing: Conceptual Models on the Effectiveness of E-Marketing Strategies in Engaging Consumers.* https://meclabs.com/about/methodology

9. Boštjančič, E., Ismagilova, F. S., & Milijašević, S. P. (2022). The Role of Managers' Cultural Intelligence and Demographic Variables in Building Trust in Business Relations. *Changing Societies and Personalities*, *6*(4), 927–944. https://doi.org/10.15826/csp.2022.6.4.210

10. Chaturvedi, A. (2023). Exploring the Complexities of Online Shopping: An Analysis of Consumer Behaviour and Decision-Making Processes. *Www. Ijsdr. Org International Journal of Scientific Development and Research*, *8*. www.ijsdr.org

11. Cumming, G., Fidler, F., Kalinowski, P., & Lai, J. (2012). The statistical recommendations of the American Psychological Association Publication Manual: Effect sizes, confidence intervals, and meta-analysis. *Australian Journal of Psychology*, *64*(3), 138–146. https://doi.org/10.1111/j.1742-9536.2011.00037.x

12. Dakic, S., & Rakovic, L. (2023). A Comparative Analysis of Social Media Usage: The Case of Social Media Use by USA and Brazilian Capital Cities. *Electronic Government, an International Journal*, *1*(1), 1. https://doi.org/10.1504/eg.2023.10045806

13. Dasgupta, S., & Jindal, O. P. (2019). Impact Of Digital Strategies On Consumer Decision Journey: Special. In the *Academy of Marketing Studies Journal* (Vol. 23, Issue 1).

14. Diwanji, V. S., & Cortese, J. (2021). *Comparing The Impact Of Presentation Format Of Consumer-Generated Reviews On Shoppers' Decisions In An Online Social Commerce Environment.*

15. Elmousa, H., Hwa, C. J., & Yee, W. F. (2023). Effectiveness of Social Media Influencers and Their Impact on Customers' Attitudes and Buying Intention. *International Journal of Internet Marketing and Advertising*, *1*(1), 1. https://doi.org/10.1504/ijima.2023.10050994

16. Fitriansyah, F., Lesmana, D., & Yudaruddin, R. (2024). The Impact of Social Media on Online Shopping Behaviour of Gen Z Consumers In the Time of Covid-19 Pandemic; The Moderating Role of Celebrity Endorsements. *WSEAS Transactions on Business and Economics*, *21*, 266–279. https://doi.org/10.37394/23207.2024.21.24

17. Hamdan, B., & Wang, P. (2023a). Multi-Fidelity Modeling and Reliability Analysis of Off-Shore Production Wells. *Proceedings - Annual Reliability and Maintainability Symposium*, *2023-January*. https://doi.org/10.1109/RAMS51473.2023.10088274

18. Hamdan, B., & Wang, P. (2023b). Multi-Fidelity Modeling and Reliability Analysis of Off-Shore Production Wells. *Proceedings - Annual Reliability and Maintainability Symposium*, *2023-January*. https://doi.org/10.1109/RAMS51473.2023.10088274

19. Helinski, C., & Schewe, G. (2022). The Influence of Consumer Preferences and Perceived Benefits in the Context of B2C Fashion Renting Intentions of Young Women. *Sustainability (Switzerland)*, *14*(15). https://doi.org/10.3390/su14159407

20. Hsin Chang, H., & Wang, H. W. (2011). The moderating effect of customer-perceived value on online shopping behaviour. *Online Information Review*, *35*(3), 333–359. https://doi.org/10.1108/14684521111151414

21. Irshad, M., & Ahmad, M. S. (2019). Impact of Consumers' Online Motivations on the Online Purchase Intentions: Mediating Role of Consumers' Attitudes towards Social Media Marketing. *Business & Economic Review*, *11*(3), 89–112. https://doi.org/10.22547/ber/11.3.4

22. Izem, R., Sanchez-Kam, M., Ma, H., Zink, R., & Zhao, Y. (2018). Sources of Safety Data and Statistical Strategies for Design and Analysis: Postmarket Surveillance. *Therapeutic Innovation and Regulatory Science*, *52*(2), 159–169. https://doi.org/10.1177/2168479017741112

23. Jarek, K., & Mazurek, G. (2019). Marketing and artificial intelligence. *Central European Business Review*, *8*(2), 46–55. https://doi.org/10.18267/j.cebr.213

24. Kazmi, S. H. A., Ahmed, R. R., Soomro, K. A., Hashem E, A. R., Akhtar, H., & Parmar, V. (2021). Role of augmented reality in changing consumer behaviour and decision making: Case of Pakistan. *Sustainability (Switzerland)*, *13*(24). https://doi.org/10.3390/su132414064

25. Kelter, R. (2021). Bayesian Hodges-Lehmann tests for statistical equivalence in the two-sample setting: Power analysis, type I error rates, and equivalence boundary selection in biomedical research. *BMC Medical Research Methodology*, *21*(1). https://doi.org/10.1186/s12874-021-01341-7

26. Kierian, N. U., Mboho, M., Umoren, P. E., & Essien, G. B. (2023). The Influence of Social Media On the Globalization of Body-Shaper Advertisements: A Comparative Study of Online Marketing Strategies. *International Journal of International Relations, Media and Mass Communication Studies*, *9*(3), 30–39. https://doi.org/10.37745/ijirmmcs.15/vol9n33039

27. Kumaran Nair, S. S., Orim, S.-M., Kaur, A., & Amoakohene, G. (2023). Collaborative Online International Learning: Case studies of HEIs in the Sultanate of Oman, the UK, and Ghana. *SHS Web of Conferences*, *156*, 06002. https://doi.org/10.1051/shsconf/202315606002

28. Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in Human Behaviour*, *56*, 225–237. https://doi.org/10.1016/j.chb.2015.11.057

29. Lubua, E. W., & Pretorius, P. D. (2019). Factors determining the perceived relevance of social commerce in the African context. *SA Journal of Information Management*, *21*(1). https://doi.org/10.4102/sajim.v21i1.959

30. Murshed, N. A., & Ugurlu, E. (2023). Navigating the Digital Marketplace: A Holistic Model Integrating Social Media Engagement and Consumer Behaviour Factors to Enhance Online Shopping Adoption. *Jurnal Manajemen Teori Dan Terapan| Journal of Theory and Applied Management*, *16*(3), 542–559. https://doi.org/10.20473/jmtt.v16i3.52059

31. Muturi, H. (2024). Impact of Social Media on Fashion Trends and Consumer Behaviour in Kenya. *International Journal of Fashion and Design*, *3*(1), 24–36. https://doi.org/10.47604/ijfd.2386

32. Nofirda, F. A., & Ikram, M. (2023). *The Use of Artificial Intelligence on Indonesian Online Shopping Application in Relation to Customer Acceptance* (pp. 642–651). https://doi.org/10.2991/978-94-6463-158-6_56

33. Norley, M. N., Jianfeng, W., Phili, A. S., Thomas, M., & Ophelia, A. (2023). Determinants Of Customer Loyalty In The Ghanaian E-Commerce: A Pls-Sem Approach. *International Journal of Research In Commerce and Management Studies*, *05*(05), 59–81. https://doi.org/10.38193/ijrcms.2023.5503

34. Ong, A. K. S., Cleofas, M. A., Prasetyo, Y. T., Chuenyindee, T., Young, M. N., Diaz, J. F. T., Nadlifatin, R., & Redi, A. A. N. P. (2021). Consumer behaviour in the clothing industry and its relationship with open innovation dynamics during the COVID-19 pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(4). https://doi.org/10.3390/joitmc7040211

35. Paschen, J., Kietzmann, J., & Kietzmann, T. C. (2019). Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. *Journal of Business and Industrial Marketing*, *34*(7), 1410–1419. https://doi.org/10.1108/JBIM-10-2018-0295

36. Patrutiu Baltes, L. (2015). Content is the fundamental tool of digital marketing. In *Bulletin of the Transilvania University of Braşov Series V: Economic Sciences* • (Vol. 8, Issue 57).

37. Peltier, J., Dahl, A. J., & VanderShee, B. A. (2020). Antecedent consumer factors, consequential branding outcomes, and measures of online consumer engagement: current research and future directions. *Journal of Research in Interactive Marketing*, *14*(2), 239–268. https://doi.org/10.1108/JRIM-01-2020-0010

38. Pongratz, N., & Diehl, S. (2015). Global Fashion Consumption Motives: A Cross-Cultural Comparison Of Apparel Consumer Decision-Making Characteristics In The US, France, Germany, And Austria. *Global Fashion Management Conference*, *1*(2), 47–50. https://doi.org/10.15444/GFMC2015.01.02.02

39. Putra, H. T., & Lestari, D. (2023). The Influence of Perceived Service Quality on Purchase Intention with Trust Plays a Mediating Role and Perceived Risk Plays a Moderating Role in Online Shopping. *Asian Journal of Economics, Business and Accounting*, *23*(8), 64–80. https://doi.org/10.9734/ajeba/2023/v23i8956

40. Qin, Y. S. (2020). Fostering brand-consumer interactions in social media: the role of social media uses and gratifications. *Journal of Research in Interactive Marketing*, *14*(3), 337–354. https://doi.org/10.1108/JRIM-08-2019-0138

41. Rani, N. M., & Catherine, S. (2023). A Study On Impulsive Buying Behaviour In Online Shopping. In *International Journal of Professional Business Review* (Vol. 8, Issue 3). AOS-Estratagia and Inovacao. https://doi.org/10.26668/businessreview/2023.v8i3.1237

42. Ribbink, D., Streukens, S., Van Riel, A. C. R., & Liljander, V. (2004). Comfort your online customer: Quality, trust, and loyalty on the internet. *Managing Service Quality: An International Journal*, *14*(6), 446–456. https://doi.org/10.1108/09604520410569784

43. Sethi, R. S. (2018). Purchase Intention Survey Of Millennials Towards Online Fashion Stores. In the *Academy of Marketing Studies Journal* (Vol. 22, Issue 1).

44. Sheikh, Z., Yezheng, L., Islam, T., Hameed, Z., & Khan, I. U. (2019). Impact of social commerce constructs and social support on social commerce intentions. *Information Technology and People*, *32*(1), 68–93. https://doi.org/10.1108/ITP-04-2018-0195

45. Shwastika, R., & Keni, K. (2021). *The Effect of Brand Awareness, Social Media Marketing, Perceived Quality, Hedonic Motivation, and Sales Promotion Towards Consumers' Intention to Purchase in the Fashion Industry*.

46. Sihombing, J. C., Bangsawan, S., & Mahrinasari, M. S. (2023). The Effect of Shopping Orientation, Product Attributes, and Electronic Word of Mouth (E-WOM) on Online Purchase Intent in The Marketplace. *Journal Research of Social Science, Economics, and Management*, *2*(9), 2234–2251. https://doi.org/10.59141/jrssem.v2i10.447

47. Snijders, R. (2014). *Analyzing Social Influence Through Social Media, A Structured Literature Review*. https://blog.twitter.com/2013/celebrating-twitter7,

48. Sunarso, B., Tusriyanto, & Mustafa, F. (2023). Analysing the Role of Visual Content in Increasing Attraction and Conversion in MSME Digital Marketing. *Journal of Contemporary Administration and Management (ADMAN)*, *1*(3), 193–200. https://doi.org/10.61100/adman.v1i3.79

49. Suraweera, S., & Jayathilake, W. (2021). Do Social Media Impact Consumer Buying Decisions in the Fashion Industry during the COVID-19 Pandemic? *International Journal of Engineering and Management Research*, *11*(4). https://doi.org/10.31033/ijemr.11.4.27

50. Tahir, M. (2021). A Study Of Factors Affecting Customers' Purchase Intention For Online Shopping Of Fashion Products Among Omani Customers. *International Journal of Management & Entrepreneurship Research*, *3*(7), 266–276. https://doi.org/10.51594/ijmer.v3i7.247

51. Tandon, U., Mittal, A., & Manohar, S. (2021). *Examining the impact of intangible product features and e-commerce institutional mechanics on consumer trust and repurchase intention*. https://doi.org/10.1007/s12525-020-00436-1/Published

52. Tatar, Ş. B., & Eren-Erdoğmuş, İ. (2016). The effect of social media marketing on brand trust and brand loyalty for hotels. *Information Technology and Tourism*, *16*(3), 249–263. https://doi.org/10.1007/s40558-015-0048-6

53. Tomar, G. S., & Institute of Electrical and Electronics Engineers Madhya Pradesh Section. (2023). *2023 12th IEEE International Conference on Communication Systems and Network Technologies, Madhya Pradesh Section flagship conference : venue: Technocrat Institute of Technology (Excellence), Bhopal, India : proceedings*.

54. Valerio, C., William, L., & Noémier, Q. (2019). The Impact of Social Media on E-Commerce Decision-Making Process. *International Journal of Technology for Business*, *1*(1), 1–9. https://doi.org/10.5281/zenodo.2591569

55. VanDyke, M. S., Lee, N. M., Abitbol, A., & Rush, S. W. (2023). How message appeals and prior product use influence information processing, risk perceptions, trust, attitudes, and genetic test purchase intentions. *PLoS ONE*, *18*(3 March). https://doi.org/10.1371/journal.pone.0283102

56. Verma, R., & Khanna, M. (2022). A Study on Consumer Behaviour Towards Online Shopping with Special Reference to Himachal Pradesh. In *International Journal for Research Trends and Innovation (www.ijrti.org)* (Vol. 7). www.ijrti.org

57. Woon, Y.-K., & Lim, E.-P. (2006). *An Association Rule Mining*. www.igi-global.com/chapter/association-rule-mining/10566?camid=4v1

58. Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: the moderating role of experience. *Information Technology and People*, *31*(3), 688–711. https://doi.org/10.1108/ITP-10-2016-0236

59. Wu, Y., & Lee, Y. (2020). A Comparative Study on the Effects of Risk Perception and Quality Perception on the Purchase Intention of Fashion Products in Online and Offline Shopping. *Asia-Pacific Journal of Convergent Research Interchange*, *6*(10), 109–121. https://doi.org/10.47116/apjcri.2020.10.09

60. Yasser, A. S., & Gayatri, G. (2023). The Role of Live Streaming in Building Consumer Trust, Engagement, and Purchase Intention in Indonesian Social Commerce Thrift Clothes Sellers. *ASEAN Marketing Journal*, *15*(2). https://doi.org/10.21002/amj.v15i2.1224

61. Yau, H. K., & Tang, H. Y. H. (2018). Analyzing the ecology of Internet marketing in small- and medium-sized enterprises (SMEs) with the unsupervised learning algorithm. *Journal of Marketing Analytics*, *6*(2), 53–61. https://doi.org/10.1057/s41270-018-0030-1

62. Zhang, Y. (2022). Precise Dissemination of E-commerce Information and Behaviour of Social Media Users. In *Journal of Control Science and Engineering* (Vol. 2022). Hindawi Limited. https://doi.org/10.1155/2022/1831581

63. Zhu, L., Li, H., Wang, F. K., He, W., & Tian, Z. (2020). How online reviews affect purchase intention: a new model based on the stimulus-organism-response (S-O-R) framework. *Aslib Journal of Information Management*, *72*(4), 463–488. https://doi.org/10.1108/AJIM-11-2019-0308

64. Zhu, Q., Zuo, R., Liu, S., & Zhang, F. (2020). Online dynamic group-buying community analysis based on high-frequency time series simulation. *Electronic Commerce Research*, *20*(1), 81–118. https://doi.org/10.1007/s10660-019-09380-5