

THE IMPACT OF SOCIAL MEDIA ON CONSUMER BUYING BEHAVIOUR

BY

Oluwasemilore Peace ADUMATI

MGS2104969

**DEPARTMENT OF MARKETING
FACULTY OF MANAGEMENT SCIENCE
UNIVERSITY OF BENIN**

NOVEMBER,2025

THE IMPACT OF SOCIAL MEDIA ON CONSUMER BUYING BEHAVIOUR

BY

Oluwasemilore Peace ADUMATI

MGS2104969

**A RESEARCH PROJECT WRITTEN AND SUBMITTED TO THE
DEPARTMENT OF MARKETING, FACULTY OF MANAGEMENT SCIENCES,
UNIVERSITY OF BENIN IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR DEGREE OF BACHELOR OF SCIENCE IN
MARKETING OF THE UNIVERSITY OF BENIN, BENIN CITY.**

NOVEMBER,2025

DECLARATION

I declare that:

This project work is based on a study undertaken by me in the Department of Marketing, University of Benin under the supervision of PROF. E.P.OSEYOMON. This work has not been previously submitted for award of a degree elsewhere.

All ideas and views are product of my personal research effort and all references to works of others have been duly acknowledged.

Oluwasemilore Peace ADUMATI

DATE: _____

CERTIFICATION

We certify that Oluwasemilore Peace ADUMATI with the matriculation number MGS2104969 submitted the research work to the Department of Marketing, Faculty of Management Sciences, University of Benin City.

PROF. E.P OSEYOMON
Project Supervisor

DATE

PROF. E.P OSEYOMON
Project coordinator

DATE

DR. S.J OSIFO
Head of Department of Marketing

DATE

DEDICATION

This project work is dedicated to Almighty God for His Unconditional love, guidance, provision and for seeing me through my academic pursuit. He has been my source of strength and help.

ACKNOWLEDGEMENTS

I express my heartfelt gratitude to God Almighty for His grace, wisdom, strength, sustainable and guidance throughout my research journey.

My sincere gratitude goes to my project supervisor, Prof .E.P. Oseyomon for his invaluable guidance, constructive contributions which were instrumental in the successful completion of this work.

A special thank you to my dear parents, Mr and Mrs Adumati for the unwavering support, prayers, love which had laid the foundation for my achievements.

To my lovely sister, Oluwasekemi I sincerely want to express my gratitude for being there for me, Your words of encouragement and support all through my academic journey has kept me going.

I am deeply thankful to my friends lectures, academic mentor and role models for their invaluable support through out my academic journey.

Finally, I dedicate this work to everyone who has supported me in one way or the other.

Your contributions, no matter how big or small, have played a significant role in my academic success.

Table of Contents

COVER PAGE	i
TITLE PAGE	ii
DECLARATION	iii
CERTIFICATION	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
Table of Contents	vii
ABSTRACT	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background To The Study	1
1.2 Statement Of The Research Problem	4
1.4 The Objectives Of The Study	6
1.5 The Research Hypotheses	7
1.6 Scope Of The Study	8
1.8 Limitations Of The Study	11
1.9.Operational Definition Of Terms	13
CHAPTER TWO	14
LITERATURE REVIEW	14
2.1 Introduction	14
2.2 Conceptual Review	14
2.2.1 Consumer Buying Behaviour	14
2.2.2 Social Media	16
2.2.3 Dark Patterns of Social Media	17

2.2.3.1 Urgency Cues	18
2.2.3.2 Perceived Product Scarcity	20
2.2.3.3 Social Proof	21
2.2.3.4 Hidden Costs	23
2.2.3.5 Confirm Shaming	24
2.3 THEORETICAL REVIEW	26
2.3.1 Theory of Planned Behaviour (TPB)	26
2.3.2 Social Influence Theory (SIT)	28
2.3.3 Uses and Gratifications Theory (UGT)	31
2.3.4 Social Exchange Theory (SET)	34
2.4 Empirical Review	37
2.5. Summary Table of Empirical Review	45
2.6 Research Gaps	49
CHAPTER THREE	51
METHODOLOGY	51
3.1 Introduction	51
3.2 Research Design	51
3.3 Population Of The Study	51
3.4 Sample Size /Sampling Techniques	52
3.5 Research Instrument	55
3.6 Validity of the Research Instrument	56
3.7 Reliability of the Research Instrument	56
3.8 Method of Data Collection	56
3.9 Method of Data Analysis	57
3.10 Model Specification	58
CHAPTER FOUR	60

DATA PRESENTATION AND ANALYSIS	60
4.1 Introduction	60
4.2 Data Presentation And Analysis	60
4.2.1 Demographic Analysis	60
4.2.2 Descriptive Analysis of the Effect of Social Media on Consumer Buying Behaviour among University Students	63
4.2.2.1 Data Presentation and Analysis for the Dependent Variable	63
4.2.2.2 Data Presentation and Analysis for the Independent Variables	65
4.2.4 Multicollinearity	78
4.2.5 Regression Analysis and Test of Hypotheses	79
4.3 Discussion of Findings	85
4.3.1. Urgency Cues and Consumer Buying Behaviour	85
4.3.2. Perceived Scarcity and Consumer Buying Behaviour	87
4.3.3. Social Proof and Consumer Buying Behaviour	88
4.3.4. Hidden Costs and Consumer Buying Behaviour	89
4.3.5. Confirm Shaming and Consumer Buying Behaviour	90
CHAPTER FIVE	92
SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS	92
5.1 Introduction	92
5.2 Summary Of Findings	92
5.3 Conclusion	94
5.4 Policy Recommendations	95
5.5 Contribution To Knowledge	96
5.6 Suggestion For Future Research	97
REFERENCES	98
APPENDIX I	103

ABSTRACT

In today's digital marketplace, social media platforms have become dominant spaces where consumers discover, evaluate, and purchase products. This study investigates the impact of dark patterns on consumer buying behaviour in Benin City, focusing on manipulative design strategies such as urgency cues, perceived scarcity, social proof, hidden costs, and confirm shaming. Anchored in the Theory of Planned Behaviour (TPB) and Social Influence Theory (SIT), the study examines how these deceptive design elements influence consumers' attitudes, perceived behavioural control, and purchase intentions within social media commerce. A descriptive survey design was adopted, and data were collected through structured questionnaires administered to active social media users in Benin City. The responses were analysed using descriptive statistics and multiple regression analysis with the aid of SPSS software. Findings revealed that urgency cues, social proof, and perceived scarcity significantly influence consumer buying behaviour by creating psychological pressure and fear of missing out (FOMO). In contrast, hidden costs and confirm shaming had weaker effects but negatively impacted trust and post-purchase satisfaction. The study concludes that dark patterns effectively drive impulsive buying but undermine consumer autonomy and long-term loyalty. The research provides practical implications for digital marketers, UX designers, and policymakers, highlighting the need for ethical marketing practices and consumer protection policies in Nigeria's growing social commerce environment. It also contributes to academic knowledge by integrating behavioural and ethical perspectives into the understanding of online consumer manipulation and decision-making processes.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The impact of social media on consumer buying behavior has emerged as a significant area of academic and practical interest in recent years. Originating in the early 2000s with platforms such as MySpace and Facebook, social media was initially designed as a medium for interpersonal communication and self-expression (Boyd & Ellison, 2007). However, as these platforms gained popularity and user engagement increased, businesses began to recognize their marketing potential, transforming social media into a dynamic channel for brand promotion and consumer interaction (Kaplan & Haenlein, 2010; Appel et al., 2020).

The early phase of marketing on social media involved organic strategies such as community building, branded content, and engagement through company pages. Over time, the availability of tools for data analytics and sponsored content enabled firms to strategically target audiences and measure marketing effectiveness (Tuten & Solomon, 2017). The late 2000s witnessed a significant shift with the rise of influencer marketing, where individuals with substantial followings began to collaborate with brands, thereby

transferring persuasive power from traditional media to relatable digital personalities with niche audiences (Freberg et al., 2011).

As the digital landscape evolved, the 2010s ushered in visual-oriented platforms such as Instagram, Snapchat, and TikTok, which emphasized immediacy, creativity, and visual storytelling (Sheldon & Bryant, 2016). These platforms, coupled with algorithm-driven content delivery, allowed marketers to tailor messages more precisely, aligning with individual consumer interests and behaviours (Boerman et al., 2017). Concurrently, consumers became increasingly reliant on peer-generated content, product reviews, and influencer endorsements to inform their purchase decisions, thereby making social media influential in every stage of the consumer journey from awareness and evaluation to decision-making and post-purchase feedback (Mangold & Faulds, 2009; Hudson et al., 2016).

The advent of social commerce further integrated the shopping experience into social media platforms. With the introduction of features like Facebook Marketplace, Instagram Shops, and TikTok Shop, users could discover, evaluate, and purchase products without leaving the app (Zhang & Benyoucef, 2016). This convergence of social interaction and commerce has significantly altered traditional consumer behavior models by embedding shopping into everyday online social interactions (Hajli, 2020).

In the present context, social media is no longer a peripheral tool for brand communication but a central platform through which consumers especially younger generations such as Millennials and Generation Z engage with brands, gather information, and make purchasing decisions (Djafarova & Bowes, 2021). Despite its growing influence, the social media environment is becoming increasingly complex. Challenges such as consumer skepticism, ad fatigue, misinformation, and data privacy concerns are shaping user interactions and purchase behavior (Bright & Daugherty, 2012; Marwick & Boyd, 2014). Additionally, emerging trends like minimalism, sustainability, and a preference for authenticity are influencing how consumers respond to digital marketing efforts (White et al., 2019).

Technological innovations such as artificial intelligence (AI), augmented reality (AR), and conversational interfaces are continually redefining how consumers interact with products and services online (Lemon & Verhoef, 2016). These advancements contribute to a deeper integration of social media into the fabric of modern consumer behavior, enabling brands to deliver personalized, immersive, and real-time experiences (Kaplan & Haenlein, 2019).

Given the rapid digital transformation and the integral role social media plays in influencing consumption patterns, this study seeks to examine the extent to which social media impacts consumer buying behavior. Specifically, it aims to provide insights into

the mechanisms through which social media shapes consumer choices, preferences, and loyalty in today's highly connected marketplace.

This study therefore focuses on the impact of social media on consumer buying behavior within the Nigerian context, with particular attention to the mechanisms of influence, platform-specific effects, and moderating factors unique to the Nigerian market. The findings are expected to contribute to both academic discourse and practical marketing strategies in Nigeria's dynamic digital marketplace (Eze et al., 2021).

1.2 STATEMENT OF THE RESEARCH PROBLEM

The rapid growth of social commerce has transformed consumer purchasing behavior, with platforms like Instagram, TikTok, and Facebook becoming key drivers of online shopping (Smith & Johnson, 2022; Adebayo & Okafor, 2023). Businesses increasingly rely on these platforms to influence buyer decisions through advertisements, influencer promotions, and interactive shopping features. However, alongside legitimate marketing strategies, many brands and platforms employ "dark patterns" deceptive user interface designs that manipulate consumers into making unintended purchases (Gray et al., 2021; Mathur et al., 2023).

Existing studies have extensively explored the general impact of social media on consumer behavior, including impulse buying (Lee & Kim, 2022), brand loyalty (Okafor

& Eze, 2023), and online trust (Adeleke & Yusuf, 2023). However, while these studies acknowledge the persuasive power of social media marketing, they largely overlook the specific role of dark patterns in shaping purchasing decisions. Prior research has primarily focused on e-commerce websites (e.g., Amazon, Jumia) rather than social media platforms (Nwachukwu & Ibe, 2022; Ogunleye & Bamgboye, 2023), despite the increasing prevalence of in-app shopping features on Instagram, TikTok, and Facebook.

Furthermore, while some studies have examined consumer awareness of manipulative marketing tactics (Ezeh & Amadi, 2023; Ajayi et al., 2024), little attention has been paid to how dark patterns on social media exploit cognitive biases such as urgency, scarcity, and social proof to drive impulsive purchases. Additionally, there is a lack of research investigating whether consumers recognize these manipulative designs and how such awareness affects their long-term trust in brands.

This study seeks to address these gaps by investigating:

How dark patterns on social media platforms manipulate consumer purchasing decisions,

Whether consumers can identify these deceptive tactics and how awareness influences, their buying behaviour, the ethical implications of dark patterns and their impact on brand trust.

1.3 RESEARCH QUESTIONS

The following research questions shall guide this study:

1. How does the use of urgency cues on social media influence consumer buying behaviour?
2. What is the effect of perceived product scarcity on consumer buying behavior on social media?
3. How does social proof (e.g., likes, comments, influencer endorsements) affect consumer buying behavior in social commerce?
4. What is the impact of hidden costs in social media shopping on consumer buying behavior?
5. How does confirmshaming as a marketing strategy influence consumer buying behavior on social media?

1.4 THE OBJECTIVES OF THE STUDY

The main objective of this study is to examine the impact of social media on consumer buying behaviour.

Specifically, the study seeks to:

1. To examine the influence of urgency cues on consumer buying behaviour social commerce.

2. To assess the effect of perceived scarcity on consumer buying behavior on social media platforms.
3. To determine the impact of social proof on consumer buying behavior in social commerce.
4. To investigate how hidden costs affect consumer buying behavior on social media platforms.
5. To explore the influence of confirmshaming techniques on consumer buying behavior on social media.

1.5 THE RESEARCH HYPOTHESES

The following hypotheses, stated in null form, shall be tested in this study:

1. Urgency cues on social media do not significantly influence consumer buying behavior.
2. Perceived scarcity on social media does not significantly affect consumer buying behavior.
3. Social proof on social media does not significantly impact consumer buying behavior.
4. Hidden costs in social media shopping do not significantly influence consumer buying behavior.

5. Confirmshaming techniques do not significantly influence consumer buying behavior on social media.

1.6 SCOPE OF THE STUDY

This study focuses on examining the impact of social media on consumer buying behaviour.

The study will investigate how various elements of social media such as influencer marketing, user-generated content, online reviews, advertisements, and social commerce features affect consumer awareness, interest, purchasing decisions, and post-purchase behavior.

The target population for this study will consist of active social media users, including students, employed individuals, and small business owners. Data will be collected through structured questionnaires administered both online and in-person to ensure broad representation. The study will focus on the current state of consumer behaviour as influenced by popular platforms like Facebook, Instagram, TikTok, and WhatsApp, and is expected to be completed in 2025. A purposive sampling technique will be adopted to ensure that only respondents with relevant social media usage experience are included in the study sample.

1. 7 SIGNIFICANCE OF THE STUDY

This research study holds substantial importance for various stakeholders in the following ways:

1. Social Media Platforms & E-Commerce Businesses:

The findings of this study will provide critical insights for social media platforms (e.g., Instagram, TikTok, Facebook) and online retailers leveraging these platforms for sales. By understanding how dark patterns manipulate consumer behavior, businesses can ethically optimize their user interfaces to enhance conversions without resorting to deceptive tactics. The study will help companies strike a balance between persuasive marketing and consumer trust, ultimately improving long-term customer retention and brand reputation.

2. Digital Marketers & UX Designers:

For marketing professionals and user experience (UX) designers, this research highlights the ethical implications of manipulative design techniques. It offers empirical evidence on how dark patterns influence purchasing decisions, allowing marketers to refine their strategies. The study will guide designers in creating transparent, user-friendly shopping experiences that prioritize consumer autonomy while maintaining effectiveness.

3. Policy Makers & Consumer Protection Agencies:

Regulatory bodies, such as Nigeria's Federal Competition and Consumer Protection Commission (FCCPC), can use this research to develop stricter guidelines against deceptive online practices. The findings may inform policies requiring social media platforms to disclose manipulative tactics, ensuring fair digital market practices.

This is particularly crucial in Nigeria, where e-commerce fraud and unethical marketing are growing concerns.

4. Consumers & Online Shoppers:

This study will raise awareness among Nigerian social media users about dark patterns, empowering them to recognize and resist manipulative tactics. Educated consumers can make more informed purchasing decisions, reducing impulsive buying and financial losses. The research may also encourage demand for greater transparency from brands, fostering a more ethical digital marketplace.

4. Entrepreneurs & Startups in E-Commerce:

For emerging digital businesses, this research underscores the risks of relying on dark patterns for short-term gains. Startups can leverage the findings to build trust-based marketing strategies that prioritize customer satisfaction over manipulation.

This approach can enhance brand loyalty and sustainable growth in Nigeria's competitive online retail space.

5. Academic & Research Institutions:

This study contributes to the growing body of knowledge on digital consumer psychology and ethical marketing. It provides a foundation for future research on dark patterns in African e-commerce contexts, where such studies are limited. Academics can use the findings to develop new courses on digital ethics, consumer rights, and behavioral marketing, bridging the gap between theory and real-world business practices.

1.8 LIMITATIONS OF THE STUDY

The study acknowledges certain limitations that may affect the interpretation of its findings:

1. Measurement Errors

Since the study relies on self-reported data through questionnaires, responses may be subject to inaccuracies such as exaggeration, omission, or social desirability bias. This could affect the reliability of the data collected and the validity of the conclusions drawn.

2. Temporal Factors

Social media platforms evolve rapidly with frequent updates in features, algorithms, and user engagement patterns. As a result, findings from this research reflect behaviours at a particular point in time and may not fully capture future trends or shifts in consumer behaviour.

3. External Factors

Consumer buying behavior is influenced by multiple external factors such as cultural norms, economic conditions, peer influence, and government regulations. These variables may interact with social media behavior in ways not fully accounted for in the present study.

4. Geographical Limitation

The study is confined to Benin City, Nigeria, which restricts the generalisability of the findings to other regions with different socio-economic or cultural settings. Consumer behavior in other urban or rural areas may differ significantly.

5. Access to Platform Data

The study does not have access to proprietary platform analytics such as detailed engagement algorithms or purchase conversion rates. Instead, it relies on consumer perceptions, which may not fully reflect actual behavioral pattern.

1.9. OPERATIONAL DEFINITION OF TERMS

1. **Social Media:** Social media refers to digital platforms and applications that enable individuals, communities, and organizations to create, share, and exchange content and information through virtual networks. These platforms, such as Facebook, Instagram, Twitter (X), TikTok, and LinkedIn, facilitate interaction, collaboration, and user-generated content in real time (Kaplan & Haenlein, 2010). Social media is characterized by its interactive, participatory, and network-driven nature, making it a significant tool for communication, marketing, and consumer engagement.

2. **Consumer Buying Behaviour:** Consumer buying behaviour is the study of the decision-making processes and actions individuals undertake when selecting, purchasing, using, and disposing of products or services to satisfy their needs and desires. It involves psychological, social, cultural, and personal factors that influence how and why consumers make purchasing decisions (Kotler & Keller, 2016). Understanding consumer buying behaviour helps businesses predict market trends, design effective marketing strategies, and enhance customer satisfaction.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter is broken down into three sections. They are as follows: conceptual review, theoretical review, and empirical review.

2.2 CONCEPTUAL REVIEW

This section provides the conceptualisation of consumer buying behaviour, social media, as well as dark patterns.

2.2.1 CONSUMER BUYING BEHAVIOUR

Consumer buying behaviour refers to the processes, decisions, and actions individuals undertake when selecting, purchasing, using, and disposing of goods and services to satisfy their needs and desires. It encompasses the psychological, social, cultural, and personal factors influencing these decisions (East et al., 2021; Babin & Harris, 2023). In marketing theory, it is viewed as a dynamic and ongoing process involving need recognition, information search, evaluation of alternatives, purchase, and post-purchase evaluation. Scholars highlight that consumer buying behaviour is not only shaped by individual preferences but is also significantly influenced by social interactions, peer

recommendations, and broader cultural norms (Gbadamosi, 2024). Within this perspective, buying behaviour serves as a bridge between consumer needs and market offerings, translating perceptions, attitudes, and beliefs into purchasing decisions (Barden, 2022).

In the digital era, particularly with the rise of social media, the definition of consumer buying behaviour extends to the ways in which online content, digital communities, and interactive marketing environments shape decision-making patterns. Platforms such as Facebook, Instagram, and YouTube have redefined the scope of consumer decision-making by providing real-time access to product information, peer reviews, and influencer endorsements, which act as critical stimuli in the decision-making process (Lipschultz, 2023; Mahoney & Tang, 2024). Research shows that online reviews, targeted advertisements, and social proof mechanisms within social media ecosystems can amplify brand awareness and trust, thereby altering the consumer's purchase intentions and actions (Abdulraheem & Imouokhome, 2021; Uzodinma, 2021). Consequently, consumer buying behaviour today is understood as a hybrid of traditional behavioural models and digitally mediated interactions, where decision-making is increasingly shaped by algorithm-driven content exposure and participatory consumer-brand engagements (Fuchs, 2021; Rachmad, 2024).

2.2.2 Social Media

Social media can be defined as a set of web-based and mobile technologies that enable individuals, communities, and organizations to create, share, and exchange information and ideas in virtual networks (Luttrell, 2025). It is distinguished from traditional media by its participatory, interactive, and user-generated nature, allowing users not only to consume but also to produce and distribute content (Mahoney & Tang, 2024). Social media platforms such as Facebook, Instagram, YouTube, TikTok, and X (formerly Twitter) operate as interactive spaces where communication occurs in real time, often blurring the line between personal and mass communication (Evans et al., 2021). Unlike one-way broadcasting systems, social media fosters a two-way communication model in which engagement, collaboration, and feedback form the core of interaction (Page et al., 2022). These platforms provide opportunities for individuals to build personal brands, connect socially, and participate in communities that transcend geographic boundaries, thus embedding themselves into everyday social, cultural, and commercial practices.

In addition to being a communication tool, social media is also a socio-technical ecosystem that shapes public discourse, consumer behavior, and cultural trends (Shu & Liu, 2022). It integrates technological features such as algorithms, hashtags, live streaming, and analytics to amplify user engagement and content visibility, thereby influencing what information is consumed and shared (Rachmad, 2024). This capacity to

facilitate viral diffusion, accelerate information flow, and foster networked communities has positioned social media as a critical driver in marketing, political mobilization, and social change (Fuchs, 2021). The participatory affordances of social media empower users to co-create meaning and contribute to shaping narratives, while its commercial applications enable targeted advertising and influencer-driven promotions (Lipschultz, 2023). As a result, social media is not merely a technological innovation but also a transformative social space that restructures how people communicate, consume, and engage with the world.

2.2.3 Dark Patterns of Social Media

Dark patterns of social media refer to user interface design strategies intentionally crafted to manipulate, coerce, or nudge individuals into making decisions that may not align with their best interests, often to the benefit of the platform or advertisers (Luguri & Strahilevitz, 2021; Mathur et al., 2021). These deceptive design techniques exploit cognitive biases, limit user autonomy, and obscure transparent decision-making, blurring the line between persuasive design and manipulation (Ahuja & Kumar, 2022). On social media platforms, dark patterns can manifest in various forms such as disguised ads, infinite scrolling, deceptive countdown timers, and interface designs that make opting out or managing privacy settings difficult (Gunawan et al., 2021; Tiemessen & Schraffenberger, 2022). They operate within the attention economy by encouraging

prolonged engagement, gathering more user data, and subtly guiding users toward behaviors that maximize commercial outcomes for the platform rather than the individual (Monge Roffarello & De Russis, 2022).

In a broader context, dark patterns in social media exploit psychological triggers such as scarcity, social proof, and fear of missing out (FOMO) to influence user actions and consumption habits (Abbott et al., 2023; Pellegrino et al., 2022). Research shows that these patterns can heighten impulsive buying behaviors, reduce perceived fairness, and increase consumer vulnerability, particularly among users with lower digital literacy or weaker self-regulatory capacities (Kim et al., 2023; Zac et al., 2023). They may also damage trust and long-term relationships between users and platforms by creating feelings of manipulation or loss of control (Bongard-Blanchy et al., 2021). As a result, dark patterns of social media are increasingly viewed not only as a design ethics issue but also as a consumer protection and regulatory concern, prompting calls for greater transparency, accountability, and policy intervention to safeguard user autonomy in digital spaces (Nie et al., 2024; Alberts et al., 2024).

2.2.3.1 Urgency Cues

Urgency cues are a form of persuasive design and dark pattern that leverage time-based pressure to accelerate consumer decision-making, often by suggesting that an offer or

opportunity will expire soon (Tiemessen, Schraffenberger, & Acar, 2023). These cues can be explicit, such as countdown timers and “limited time only” banners, or implicit, such as highlighting that a price will revert to a higher amount shortly (Sin et al., 2025). The central mechanism behind urgency cues is their ability to trigger *fear of missing out* (FOMO), a psychological response that pushes consumers toward immediate action rather than deliberate evaluation (Abbott et al., 2023). While urgency tactics can be legitimate in some marketing contexts, they cross into manipulative territory when the time limit is deceptive—such as when the deal continues after the timer reaches zero—or when artificial deadlines are repeatedly extended to maintain pressure (Tiemessen et al., 2023). This artificial sense of urgency can impair rational choice by reducing the time consumers have to assess product value, compare alternatives, or reflect on whether a purchase aligns with their needs.

Research indicates that urgency cues are particularly effective on digital platforms due to the instantaneous nature of online purchasing and the constant flow of persuasive content (Pellegrino, Abe, & Shannon, 2022). In social media advertising and e-commerce, urgency cues are often integrated with other dark patterns like scarcity cues or social proof to intensify psychological pressure (Al-Tabakhi, Al Khasawneh, & Dandis, 2024). Such combinations not only heighten impulse buying but can also create an environment in which consumers feel chronically rushed, undermining trust in platforms over time.

Moreover, urgency cues have been shown to disproportionately affect consumers with higher susceptibility to impulse buying or lower digital literacy, raising ethical concerns around consumer vulnerability (Kim, Kim, & Lee, 2023). Ultimately, while urgency cues can be powerful tools for driving engagement and conversion, their strategic misuse transforms them into manipulative mechanisms that prioritise immediate commercial gains over consumer autonomy and informed decision-making.

2.2.3.2 Perceived Product Scarcity

Perceived product scarcity refers to the intentional or strategic presentation of goods as being in limited supply to stimulate demand and encourage faster purchasing decisions (Abbott et al., 2023). This tactic exploits scarcity as a psychological trigger rooted in the idea that people assign greater value to items they believe are rare or difficult to obtain (Elisa, Fakhri, & Pradana, 2022). Scarcity cues can take the form of messages such as “Only 3 left in stock” or “Selling out fast,” and can be either genuine—reflecting actual inventory—or fabricated to create a false sense of urgency (Tuncer et al., 2024). In the context of social media and online shopping, perceived scarcity is often integrated into advertising algorithms that display real-time stock levels or highlight high purchase activity from other users to signal popularity and rarity simultaneously (Naeem, 2021). This plays into the consumer’s innate aversion to loss, making the prospect of missing out on the product more salient than the cost or need for the item itself.

Studies have shown that perceived product scarcity is not only effective in boosting short-term sales but also in altering brand perceptions, as scarce products are often viewed as more exclusive or prestigious (Pellegrino et al., 2022). However, when scarcity is artificially induced, it becomes a dark pattern that manipulates consumer decision-making rather than simply informing it (Al-Tabakhi et al., 2024). Such practices can foster compulsive or panic buying behaviors, particularly in high-demand situations such as sales events or during crises, as seen during the COVID-19 pandemic (Elisa et al., 2022). Furthermore, perceived scarcity can amplify competitive shopping behaviors, leading to over-purchasing and post-purchase regret when consumers later realize the urgency was exaggerated. While scarcity-based marketing is deeply embedded in both traditional and digital commerce, the ethical concern emerges when it distorts market transparency, erodes trust, and capitalizes on consumer anxiety rather than authentic product demand.

2.2.3.3 Social Proof

Social proof is a persuasive mechanism where individuals rely on the actions, opinions, or endorsements of others to guide their own behavior, particularly in contexts of uncertainty or incomplete information (Fuchs, 2021; Lipschultz, 2023). In digital environments, especially on social media, social proof manifests through visible metrics such as likes, shares, follower counts, comments, and product reviews, all of which serve

as heuristic signals of popularity, credibility, and desirability (Mahoney & Tang, 2024; Evans, Bratton, & McKee, 2021). This effect is amplified when platforms algorithmically highlight trending products, viral content, or high-engagement posts, which reinforces a perception of consensus and drives conformity (Page et al., 2022; Rachmad, 2024). From a consumer behavior perspective, social proof can accelerate decision-making by reducing perceived risk and uncertainty, as individuals tend to assume that the collective judgment of many others is a reliable indicator of value (East et al., 2021; Babin & Harris, 2023).

Social proof as a dark pattern becomes problematic when it is engineered or manipulated to artificially inflate popularity cues, thereby misleading consumers into overestimating demand, satisfaction, or credibility (Gbadamosi, 2024; Rachmad & MM, 2024). Examples include fake reviews, purchased followers, fabricated testimonials, or misrepresented sales volumes—tactics that create the illusion of widespread approval to trigger impulse purchases (Barden, 2022; Francis et al., 2023). On social media, such deceptive uses of social proof can be coupled with influencer marketing, where endorsements are presented as genuine personal recommendations without adequate disclosure of sponsorship (Luttrell, 2025; Ezenwafor et al., 2021). These practices exploit the trust consumers place in peer validation and can lead to purchasing decisions that are not based on authentic product quality or satisfaction. As a result, while authentic social

proof can foster community trust and guide informed decision-making, manipulated or fabricated social proof erodes consumer confidence and raises significant ethical and regulatory concerns in digital marketing.

2.2.3.4 Hidden Costs

Hidden costs refer to undisclosed or insufficiently disclosed fees, charges, or conditions that are revealed only late in the purchasing process, often after a consumer has committed time or effort toward completing a transaction (East et al., 2021; Babin & Harris, 2023). Common examples include unexpected shipping fees, handling charges, subscription renewals, or add-on costs that were not presented in the initial product listing (Evans et al., 2021; Mahoney & Tang, 2024). In online and social media commerce, hidden costs are often embedded in “drip pricing” strategies, where the total purchase price is disclosed incrementally rather than upfront (Fuchs, 2021; Gbadamosi, 2024). This approach leverages psychological commitment—once consumers have invested effort into browsing, adding to cart, and entering payment information, they are more likely to proceed despite higher final costs (Barden, 2022; Francis et al., 2023). While not all delayed cost disclosures are inherently deceptive, when the omission is intentional to manipulate consumer decision-making, it is classified as a dark pattern.

The strategic use of hidden costs can distort competitive comparisons, as consumers often base purchase decisions on initial displayed prices without realizing that competitors might have more transparent total cost presentations (Luttrell, 2025; Rachmad, 2024). In social media advertising, where short-form and visually focused promotions dominate, such cost details are frequently omitted in favor of attention-grabbing price anchors, leaving the full financial obligation undisclosed until the final purchase step (Page et al., 2022; Rachmad & MM, 2024). This can result in consumer frustration, perceptions of dishonesty, and reduced long-term loyalty (Babin & Harris, 2023; East et al., 2021). Regulatory authorities in multiple jurisdictions have begun addressing hidden costs in e-commerce by mandating full price disclosure before the point of sale, emphasizing that transparency is a core component of consumer protection. Ethically, eliminating hidden costs supports fair competition and ensures that consumers can make informed purchasing decisions without being subject to manipulative last-minute pricing tactics.

2.2.3.5 Confirm Shaming

Confirm shaming is a dark pattern in digital interface design where users are guilt-tripped, shamed, or emotionally manipulated into making a decision that benefits the platform or seller, typically by framing the alternative choice in a negative, socially undesirable, or self-deprecating way (Gray et al., 2021; Alberts, Lyngs, & Van Kleek, 2024). Instead of presenting options neutrally, confirm shaming embeds persuasive language in rejection

buttons, such as “No thanks, I hate saving money” or “I don’t care about my health,” which creates a subtle psychological pressure to conform to the intended choice (Nie et al., 2024; Bongard-Blanchy et al., 2021). On social media and e-commerce platforms, this tactic exploits social influence cues and self-image concerns, making users feel that opting out signals ignorance, selfishness, or lack of responsibility (Kim, Kim, & Lee, 2023). The manipulative force of confirm shaming lies in its ability to provoke discomfort or fear of social judgment, prompting compliance even when users would otherwise reject the offer.

Within the broader context of consumer behavior, confirm shaming operates by leveraging principles of loss aversion, social proof, and identity signaling to steer decisions without explicitly restricting choice (Mathur, Kshirsagar, & Mayer, 2021; Zac et al., 2023). In social media marketing, confirm shaming is often combined with scarcity cues, exclusive offers, or moralized language to intensify urgency and guilt (Al-Tabakhi, Al Khasawneh, & Dandis, 2024; Sin et al., 2025). For example, a pop-up for a donation campaign might pair the “No” option with a phrase implying a lack of empathy or community spirit, subtly framing refusal as socially or morally deviant. While such framing can increase short-term conversions, it risks long-term reputational harm by eroding user trust and fostering resentment (Gunawan et al., 2021; Mildner et al., 2023). Regulators and scholars argue that confirm shaming undermines informed consent by

manipulating affective responses rather than facilitating autonomous decision-making, making it a focal point in current discussions on ethical interface design and dark pattern regulation (Ahuja & Kumar, 2022; Luguri & Strahilevitz, 2021).

2.3 THEORETICAL REVIEW

The following theories will be discussed in relation to the impact of social media on consumer buying behaviour:

2.3.1 Theory of Planned Behaviour (TPB)

Propositions

The Theory of Planned Behaviour (TPB), developed by Ajzen (1985, 1991), extends the Theory of Reasoned Action (Fishbein & Ajzen, 1975) by incorporating the construct of perceived behavioural control to account for situations where individuals may not have complete volitional control over their actions. It proposes that an individual's behavioural intention is shaped by three primary factors: attitude toward the behavior (personal evaluation of the act), subjective norms (perceived social pressures), and perceived behavioural control (perceived ease or difficulty of performing the behavior). In consumer research, these constructs have been widely used to understand purchase intentions and decision making processes (Rozenkowska, 2023; East et al., 2021).

Principles

The principle underlying TPB is that individuals are rational actors who base their decisions on systematic consideration of available information. Attitudes are formed by evaluating the likely outcomes of the behavior, subjective norms emerge from perceived expectations of significant others, and perceived control is shaped by past experiences and anticipated obstacles (Ajzen, 1991). In digital contexts, this means that persuasive content, social proof, and interface design can act as determinants of attitudes, norms, and perceived control (Gbadamosi, 2024; Mahoney & Tang, 2024).

Applications

Applying TPB to social media-driven consumer buying behaviour reveals the intricate interplay between digital marketing stimuli and psychological determinants of purchase decisions. Social media platforms influence attitudes through visually appealing content, product demonstrations, and emotionally resonant narratives (Luttrell, 2025; Evans et al., 2021). Subjective norms are reinforced through signals of collective approval, such as likes, shares, comments, and follower counts, which create perceptions of product desirability (Fuchs, 2021; Rachmad, 2024). Perceived behavioural control may be strengthened by seamless purchasing interfaces and targeted recommendations, but can also be undermined by dark patterns such as confirm-shaming, countdown timers, and hidden costs that pressure consumers into decisions (Al-Tabakhi et al., 2024; Kim et al., 2023). In emerging markets like Nigeria, these TPB elements are particularly relevant

because social media serves not only as a marketplace but also as a primary source of product validation and trust (Abdulraheem & Imouokhome, 2021; Uzodinma, 2021).

Justification

From a critical perspective, TPB's predictive power in digital consumer contexts must consider the role of technological affordances and persuasive interface design, which actively manipulate the antecedents of intention. Studies show that platforms can artificially inflate subjective norms through fabricated engagement metrics, bias attitudes via algorithmic content curation, and distort perceived control using deceptive design (Nie et al., 2024; Gray et al., 2021). This aligns with critiques that TPB's rational choice assumptions may be compromised in environments where choice architecture nudges or coerces consumer action (Lipschultz, 2023; Page et al., 2022). Nonetheless, TPB remains a robust theoretical framework because it integrates both cognitive and social dimensions of behavior. When combined with insights from digital marketing and dark pattern research, TPB provides a nuanced framework for understanding how consumer intentions are formed and manipulated within online commercial ecosystems.

2.3.2 Social Influence Theory (SIT)

Propositions

Social Influence Theory—originally formalised through the works of Kelman (1958) and later expanded in persuasion and communication literature—explains how individuals’ thoughts, feelings, and behaviours are shaped by the real or perceived presence of others. The theory proposes three core processes: compliance (behaviour change due to external expectations or rewards), identification (alignment with individuals or groups for relational or aspirational reasons), and internalisation (adopting beliefs because they are congruent with personal values). In digital marketing contexts, these processes operate at scale through social media platforms, where “others” may be peers, influencers, or algorithmically amplified majorities (Fuchs, 2021; Mahoney & Tang, 2024).

Principles

The principle underpinning Social Influence Theory is that individuals adapt their behaviours and beliefs to align with perceived social norms, trusted figures, or aspirational models. Compliance reflects external conformity, identification reflects relational alignment, and internalisation reflects deep congruence between external influence and personal values (Kelman, 1958). On social media, these principles are manifested through visible consensus cues such as likes, shares, and follower counts, which signal what others approve of. Influencer endorsements also leverage identification by fostering parasocial relationships that combine aspirational and personal dimensions (Rachmad, 2024; Evans et al., 2021).

Applications

Applied to social media persuasion and dark patterns, Social Influence Theory helps explain why manipulative interface designs leveraging social proof, urgency, or scarcity are effective. Dark patterns that exaggerate popularity metrics or simulate limited availability create the impression of normative behaviour what “most people” are doing which increases compliance and reduces deliberation (Kim et al., 2023). Tactics such as countdown timers, “only 2 left” tags, or high-demand badges act as conformity triggers that shift decision-making away from personal evaluation toward alignment with group norms (Tuncer et al., 2024; Nie et al., 2024). In Nigerian e-commerce, celebrity endorsements and micro-influencer campaigns intensify identification effects, with local influencers often outperforming global ones due to cultural proximity and trust (Idris & Ladan, 2025). This aligns with Page et al. (2022) and Lipschultz (2023), who highlight how hashtags, memes, and comment threads create feedback loops of visible approval that blur organic consumer sentiment with engineered persuasion.

Justification

From a critical standpoint, Social Influence Theory highlights the ethical complexities of online consumer manipulation. While earlier research acknowledged voluntary adoption of group norms, social media increasingly merges influence with coercion through hidden design features. Algorithmically amplified social proof can fabricate consensus, inflating

compliance without genuine peer endorsement (Luguri & Strahilevitz, 2021; Zac et al., 2023). In such cases, internalisation the deepest form of influence may occur under false premises, with consumers believing in a product's desirability because platform architecture repeatedly frames it as socially validated. This is especially relevant in Nigeria's digital retail sector, where rapid adoption of social commerce coincides with weaker institutional consumer protections and reliance on social networks for purchase validation (Uzodinma, 2021; Gbadamosi, 2024). Thus, Social Influence Theory provides not only an explanation of how peer, influencer, and algorithmic signals shape consumer behaviour but also a framework for evaluating policy and design interventions to curb exploitative uses of social proof in online marketplaces.

2.3.3 Uses and Gratifications Theory (UGT)

Propositions

The Uses and Gratifications Theory (UGT), developed by Katz, Blumler, and Gurevitch (1974), proposes that audiences are active participants in media consumption. Unlike passive models of media influence, UGT assumes that individuals purposively select media based on their ability to satisfy personal and social needs (Rubin, 2009). The theory shifts the question from "What do media do to people?" to "What do people do with media?" (Katz et al., 1974). Media use is thus goal-directed, and consumers

continuously evaluate whether media experiences meet their expectations, which shapes future engagement patterns.

Principles

UGT is guided by four core principles. First, audience activity: individuals consciously select and engage with media rather than being passive recipients. Second, needs fulfillment: media use is motivated by specific needs categorized into cognitive (information and knowledge), affective (emotions and pleasure), personal integrative (credibility and self-confidence), social integrative (relationships and belonging), and tension release (escape and relaxation) (Katz et al., 1974). Third, gratifications sought versus gratifications obtained: expectations prior to media use shape satisfaction outcomes, with discrepancies influencing future choices (Palmgreen & Rayburn, 1985). Fourth, situational variability: motivations and gratifications vary across cultural, technological, and social contexts, making the theory adaptable to both traditional and digital platforms.

Applications

UGT has been applied extensively to explain audience behavior across television, radio, and digital platforms. In social media contexts, Whiting and Williams (2013) identified motivations such as entertainment, social interaction, self-expression, information sharing,

and passing time as central drivers of participation. These gratifications explain why users repeatedly engage with platforms like Instagram, TikTok, and Twitter, which simultaneously satisfy emotional, social, and informational needs (Quan-Haase & Young, 2010). In the Nigerian digital marketplace, UGT explains consumer reliance on social media for both product discovery and validation, as platforms serve as spaces where entertainment, trust-building, and purchase decisions intersect (Uzodinma, 2021). Furthermore, marketers leverage UGT by tailoring content such as influencer endorsements, interactive videos, and personalized advertisements to align with consumer motivations, thereby increasing engagement and purchase intentions.

Justification

The relevance of UGT to this study lies in its ability to explain why consumers actively engage with social media platforms that are infused with marketing content and dark patterns. Since Nigerian consumers increasingly rely on digital media to fulfill cognitive and social needs while making purchase decisions, UGT provides a robust lens for analyzing how gratifications influence buying behavior (Whiting & Williams, 2013; Quan-Haase & Young, 2010; Uzodinma, 2021). Prior research shows that gratifications such as entertainment, social interaction, and information seeking are closely tied to purchase intentions in online environments (Shao, 2009; Sundar & Limperos, 2013; Ruggiero, 2000). This suggests that dark patterns often exploit these motivations urgency

cues and scarcity tactics, for instance, appeal to tension release and social integrative needs by creating pressure to conform or act quickly (Kim et al., 2023; Tuncer et al., 2024). Moreover, empirical evidence from African digital markets highlights that consumers' loyalty to social platforms is largely based on the gratifications obtained, which can make them vulnerable to manipulative strategies that blur the line between genuine satisfaction and engineered engagement (Abdulraheem & Imouokhome, 2021; Gbadamosi, 2024). By emphasizing consumer agency while also acknowledging vulnerability to manipulation, UGT justifies its inclusion as a framework for examining the dual role of social media as both a source of value and a site of exploitative marketing strategies (Lipschultz, 2023; Nie et al., 2024).

2.3.4 Social Exchange Theory (SET)

Propositions

The Social Exchange Theory (SET), originally advanced by Homans (1958) and further refined by Blau (1964), proposes that human interactions are guided by a rational evaluation of rewards and costs. The theory assumes that individuals continue relationships or transactions when the perceived benefits exceed the associated costs, but withdraw when costs outweigh benefits (Emerson, 1976). In the consumer context, rewards may include satisfaction, trust, and value-for-money, while costs often involve time, effort, financial risk, or exposure to deceptive marketing practices. Thus, consumer

decisions are based on a cost benefit calculation that shapes purchase, loyalty, and brand relationships.

Principles

Three key principles underlie SET. First, self interest and rationality: consumers act with the aim of maximizing benefits and minimizing costs. Second, interdependence: consumer outcomes are contingent on the behavior of firms, platforms, and social groups that provide or withhold value. Third, reciprocity: sustainable relationships rely on a balance of give-and-take, where consumers expect fairness, transparency, and continued delivery of value in exchange for loyalty and patronage (Cropanzano & Mitchell, 2005).

Applications

In the digital marketplace, SET explains how consumers evaluate online interactions. Platforms create favorable exchanges by offering rewards such as discounts, convenience, loyalty points, or social validation while reducing perceived costs through secure payments and user-friendly interfaces (Molm, 2006). Nigerian e-commerce studies show that trust in sellers and value-for-money strongly influence consumer engagement, given high concerns about fraud and deceptive practices (Omoriegbe et al., 2019). Moreover, dark patterns in digital commerce exploit the cost-benefit framework by amplifying

perceived rewards (e.g., “limited-time offers” or “exclusive access”) while obscuring hidden costs, such as recurring subscriptions or data misuse (Luguri & Strahilevitz, 2021).

Justification

Social Exchange Theory is highly relevant to this study because it highlights how consumers’ online purchase decisions are shaped by the perceived balance between value and risk. In the Nigerian social commerce environment, where consumers rely heavily on trust, reciprocity, and social endorsements for purchase validation, SET provides a robust lens for understanding both positive consumer engagement and susceptibility to manipulative marketing practices (Omoregie et al., 2019; Abdulraheem & Imouokhome, 2021). Scholars argue that online consumers remain engaged when they perceive fairness, transparency, and mutual benefit in digital exchanges but withdraw when hidden costs or deceptive practices increase perceived risks (Molm, 2006; Luguri & Strahilevitz, 2021). Furthermore, recent studies show that SET is particularly effective in explaining loyalty and retention behaviors in e-commerce, since consumers evaluate whether long-term benefits (e.g., discounts, trust, convenience) outweigh short-term costs (Zhang & Kim, 2020; Choi & Burnes, 2022). In Nigeria, where institutional consumer protection is weak, reciprocity and perceived fairness strongly influence repeat purchases and word-of-mouth referrals (Uzodinma, 2021; Gbadamosi, 2024). Therefore, SET offers a strong theoretical

foundation for analyzing the dynamics of consumer behavior in the presence of both transparent and manipulative strategies in social media driven commerce.

2.4 EMPIRICAL REVIEW

Abdulraheem and Imouokhome (2021) examined the influence of social media sites on consumer buying behaviour in Shoprite Nigeria Limited, focusing on platforms such as Twitter, Facebook, Google+, blogs, and YouTube. Using a descriptive design and a structured questionnaire with a five-point Likert scale, data were collected from 321 respondents in Ibadan and Lagos, selected via Cochran's (1977) sample size formula. Multiple regression analysis revealed a significant influence of social media sites on consumer buying behaviour, leading to the rejection of the null hypothesis. The authors concluded that social media is an important tool for influencing consumer purchasing decisions and recommended that organizations invest more in social media platforms to enhance audience engagement and competitive advantage.

Olaitan (2021) investigated the impact of Twitter, Facebook, and Instagram on consumer behaviour in Nigeria, with specific attention to both young and older consumer segments. The study adopted the Model of Consumer Behaviour, using a quantitative, cross-sectional survey design with convenience sampling to select 128 participants through an online questionnaire. Data analysis using correlation and multiple regression revealed no

statistically significant association between social media usage and consumer purchase decisions, leading to the rejection of the first hypothesis. The author concluded that while social media is widely used for buying and selling, security concerns on platforms like Instagram, Twitter, and WhatsApp hinder trust. It was recommended that social media companies invest in improved security infrastructure to build consumer confidence and encourage e-commerce adoption.

Uzodinma (2021) explored the influence of social media on consumer buying behaviour in Lagos State, focusing on four major e-commerce platforms—Wakanow, Jumia, Kaymu, and Konga. Adopting a quantitative, descriptive design and positivist approach, data were collected via Google Forms from online shoppers who use these platforms. Statistical analysis using SPSS indicated that social media networks significantly influence customer patronage, decision-making processes, and purchase intentions, with marketing channels exerting a mediating effect on buying behaviour. The study recommended that e-commerce companies strengthen data security measures to address consumers' concerns about fraud and privacy, as these factors heavily influence online purchase decisions in Nigeria.

Oranye and Nwachukwu (2025) assessed the effect of social media marketing strategies on the purchase of kitchen equipment by mobile phone users in Anambra State, focusing on Facebook, X Premium, Instagram, YouTube, and Business WhatsApp marketing.

Using the uses and gratification theory, a survey design, and a sample of 368 respondents, multiple regression analysis showed that Facebook, X Premium, YouTube, and Business WhatsApp marketing significantly influenced purchase behaviour, while Instagram marketing had no significant effect. The study concluded that social media marketing channels substantially shape consumer purchasing decisions and recommended tailored campaigns that foster brand awareness, favourable brand image, and community engagement to enhance online sales performance.

Idris and Ladan (2025) investigated the relationship between social media content types—such as sponsored posts, user reviews, and interactive campaigns—and consumer purchase decisions in Kano State, with celebrity endorsement as a moderating variable. Findings indicated that while social media promotions positively affect buying behaviour, endorsements from locally recognised celebrities have a stronger impact than those from global figures due to cultural proximity and trust. The study concluded that authentic celebrity associations enhance brand popularity and loyalty, particularly when aligned with cultural identity and economic conditions. It recommended that businesses in digital marketplaces strategically utilise local influencer marketing combined with brand authenticity and data-driven evaluation to strengthen consumer engagement and purchasing behaviour.

Ezeh, Anah, Arinze, and Odunukwe (2025) investigated the effects of social media marketing variables—specifically interaction and collaboration—on consumer purchase of electronic products in Anambra State, Nigeria. Anchored in the Uses and Gratification theory, the study surveyed the total population of 622 electronic product users, retrieving 592 questionnaires, of which 587 were valid for analysis. Using multiple regression, the findings revealed that both interaction ($t = 4.694, p < 0.05$) and collaboration ($t = 3.624, p < 0.05$) had significant positive effects on consumer purchasing behaviour. The authors concluded that active engagement and collaborative promotion strategies via social media significantly drive consumer electronics purchases. They recommended personalised engagement, influencer partnerships, and educational initiatives such as webinars to foster trust, loyalty, and product awareness.

Okeke (2025) examined social media usage preferences and demographic patterns influencing sustainable consumer behaviour in Nigerian e-commerce. Drawing data from a survey of 400 participants, the study profiled respondents based on gender, age, educational level, income, and preferred social media platforms. Results indicated that young adults (18–34 years), predominantly undergraduate students with incomes below ₦50,000, constituted the majority of respondents. Facebook and Instagram emerged as the most used platforms, followed by WhatsApp as a direct consumer engagement tool. The study concluded that marketing strategies should be tailored to distinct demographic

segments, with affordable product offerings for low-income groups and more sophisticated, knowledge-driven content for educated consumers, to enhance targeted engagement and long-term sustainable consumption patterns.

Miah, Hossain, Shikder, Saha, and Neger (2022) explored the impact of social media on online shopping behaviour during the COVID-19 pandemic from a Bangladeshi perspective. Employing a quantitative descriptive research design, data were collected from 350 consumers via online purposive sampling and analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results revealed that celebrity endorsements, promotional tools, and online reviews significantly and positively influenced online shopping behaviour during the pandemic. The authors highlighted the role of persuasive digital content in shaping consumer purchase intentions under crisis conditions, emphasising the need for marketers to strategically combine trust-building and promotional elements to sustain online retail growth.

Abbott et al. (2023) applied the Stimulus–Organism–Response (S-O-R) model to examine the influence of dark pattern stimuli and personality traits on online impulse shopping. Using machine learning (XGBoost) and latent profile analysis, the study investigated consumer reactions to three dark patterns—social proof, limited-quantity scarcity, and high-demand indicators—while factoring in the Big Five personality traits. Findings showed that susceptibility to impulse purchasing varied according to personality

profiles, with certain traits predicting higher responsiveness to specific dark patterns. The authors concluded that personalising interventions to individual psychological predispositions could reduce vulnerability to manipulative digital marketing tactics, providing important consumer protection and ethical marketing implications.

Pellegrino, Abe, and Shannon (2022) examined the “dark side” of social media by analysing the effect of materialism on compulsive, conspicuous, and impulsive buying, mediated by social media intensity (SMI) and attitudes toward social media content (SCM). Using a convenience sample of 400 Thai social media users and structural equation modelling, results confirmed positive relationships between materialism and the three forms of negative consumption behaviour. SMI emerged as a strong predictor of all three behaviours and significantly mediated the relationship between materialism and consumption patterns, whereas SCM was often non-significant. The study concluded that high engagement with social media amplifies the materialism–consumption link, underscoring the need to address the psychological drivers of excessive online purchasing behaviours.

Tiemessen, Schraffenberger, and Acar (2023) explored the impact of deceptive countdown timers—a type of dark pattern—on consumers’ buying behaviour and perceptions. In a simulated online shopping experiment involving 245 participants, the authors compared three conditions: no special offer, a discount only, and a discount with

a deceptive countdown timer. Results showed that both discounts and deceptive timers increased preference for the discounted product, but deceptive timers triggered negative emotional responses, including perceptions of manipulation and unethical practice. The findings indicate that while deceptive timers can induce fear of missing out and encourage purchases, they also risk damaging brand trust and consumer willingness to engage with websites using such tactics.

Al-Tabakhi, Al Khasawneh, and Dandis (2024) investigated the role of dark patterns on social media in influencing user engagement and impulse buying in Jordan. Using a Google Forms survey of 492 participants and structural equation modelling (SEM), the study found that time pressure, perceived effort, pleasure, and social acceptance positively influenced user engagement, while non-routine behaviour had a negative effect. Engagement, in turn, significantly increased impulse buying tendencies. The authors emphasised that while dark patterns can be effective in boosting short-term sales, they undermine trust and long-term customer relationships. The study recommended ethical marketing practices, transparency, and culturally relevant social proof to maintain sustainable consumer engagement.

Sin, Harris, Nilsson, and Beck (2025) conducted two experiments to evaluate both the effectiveness of dark patterns and the potential of behavioural interventions to mitigate their effects on impulse buying. The first experiment, in a single-product online shopping

scenario, confirmed that all tested dark patterns increased purchase impulsivity compared to a control. The second experiment, in a multi-product context, tested three interventions and found that although their effectiveness varied across different dark patterns, all interventions significantly reduced impulsive purchases compared to no intervention. The study concluded that while dark patterns are potent drivers of impulse buying, strategic interventions—such as choice architecture adjustments—can help protect consumers without entirely diminishing engagement.

Elisa, Fakhri, and Pradana (2022) examined the moderating role of social media usage in impulsive buying of personal protective equipment during the COVID-19 pandemic in Indonesia, using the Scarcity Model and Stimulus–Organism–Response (SOR) framework. Data from 320 respondents, analysed with SmartPLS, revealed that scarcity messages significantly increased perceived value and, consequently, impulsive buying. Social media use strengthened the relationship between scarcity cues and impulsive purchases, while perceived value mediated the scarcity–buying relationship. The authors suggested that marketers and policymakers should be mindful of how scarcity-driven messaging can heighten consumer vulnerability, particularly during crises.

Naeem (2021) explored the ways in which social media contributes to consumer panic buying during the COVID-19 pandemic. Using telephonic interviews with 34 social media users, the study identified multiple social proof and influence cues—such as

product unavailability proof, authoritative communications, and expert opinions—that fuelled panic buying. The research also proposed a consumer panic buying theory integrating perspectives from global capitalism, information society risk theory, social influence, and social proof. Findings highlighted that while real-time information can help consumers make better decisions, it can also heighten anxiety and stockpiling tendencies, underscoring the dual role of social media as both an informational and emotional trigger.

2.5. Summary Table of Empirical Review

S/NO	Author(s)	Year	Topic	Methodology	Findings	Recommendations
1	Abdulraheem, M., & Imouokhome, E. O.	2021	Influence of social media sites on consumer buying behavior in Shoprite Nigeria Limited	Descriptive design; Structured questionnaire (Likert scale); Multiple regression; 321 respondents from Ibadan and Lagos	Social media sites (Twitter, Facebook, Google+, blogs, YouTube) significantly influence consumer buying behavior in Shoprite Nigeria Limited	Invest more in targeted social media marketing to enhance customer engagement and influence purchase decisions
2	Olaitan, O.	2021	Impact of Twitter, Facebook, and Instagram on	Quantitative cross-sectional survey; Convenience	Social media networks widely used for buying/selling, but no	Improve security and trust features of platforms like Instagram, Twitter, and WhatsApp to

			consumer behaviour in Nigeria	sampling; 128 participants; Correlation and multiple regression	significant association between use of platforms and purchase decision	encourage e-commerce adoption
3	Uzodinma, C. D.	2021	Influence of social media on buying behaviour of consumers in Lagos State	Quantitative descriptive design; Google Form survey; SPSS analysis; Online buyers from Wakanow, Jumia, Kaymu, and Konga	Social media networks significantly impact customer patronage, decision-making, and purchase intentions; marketing channels mediate buying behavior	E-commerce platforms should ensure data privacy and security to boost consumer trust and online purchase rates
4	Oranye, I. H., & Nwachukwu, B. C.	2025	Social media marketing strategies and purchase of kitchen equipment by mobile phone users in Anambra State	Survey design; Sample of 368; Multiple regression via SPSS	Facebook, X Premium, YouTube, and WhatsApp marketing significantly affect purchases; Instagram marketing not significant	Focus on platforms with proven effectiveness; create brand communities; launch awareness campaigns tailored to consumer behaviour
5	Idris, A., & Ladan, Z. A.	2025	Social media content and consumer purchase decisions with celebrity	Conceptual framework; Literature review and survey evidence	Social media promotions influence buying behavior; local celebrity endorsements	Leverage local influencers for authenticity; align brand identity with relatable celebrity endorsements; use analytics to

			endorsement as moderator		more effective than global ones	measure impact
6	Ezeh, M. U., et al.	2025	Social media marketing variables and consumer purchase of electronic products in Anambra State	Survey; Census approach (587 valid responses); Multiple regression	Social media interaction and collaboration positively affect consumer purchases	Personalize engagement via direct responses; collaborate with influencers; hold educational webinars on products
7	Okeke, L. N.	2025	Social media and sustainable consumer behaviour in e-commerce	Survey of 400 participants; Demographic and preference analysis	Young adults dominate social media use; Facebook and Instagram most popular; WhatsApp effective for direct interaction	Tailor strategies to demographic segments; adjust product affordability for low-income groups; create educational content for educated consumers
8	Miah, M. R., et al.	2022	Impact of social media on online shopping during COVID-19 in Bangladesh	Quantitative descriptive design; 350 responses; PLS-SEM	Celebrity endorsements, promotions, and online reviews positively affect online shopping	Integrate trustworthy celebrity endorsements; enhance promotional content; encourage verified customer reviews
9	Abbott, R., et al.	2023	Dark pattern stimuli, personality, and online impulse shopping (SOR	Machine learning (XGBoost); Personality profiling; Analysis of responses to	Personality traits influence susceptibility to different dark patterns	Develop personalized interventions to reduce consumer vulnerability to manipulative online marketing

			theory)	social proof, scarcity, and demand cues		
10	Pellegrino, A., et al.	2022	Social media content effects on materialism and consumption	SEM on 400 Thai social media users	Materialism linked to compulsive, conspicuous, and impulsive buying; social media intensity mediates relationship	Promote digital literacy to mitigate materialism-driven overconsumption; regulate manipulative social media practices
11	Tiemessen, J., et al.	2023	Effect of deceptive countdown timers on buying behavior	Experimental design (N=245); Three treatment conditions	Discounts and timers increase product preference; deceptive timers perceived as manipulative and unethical	Avoid deceptive countdown timers; use transparent urgency cues to maintain consumer trust
12	Al-Tabakhi, R. R., et al.	2024	Dark patterns on social media, engagement, and impulse buying	Survey (N=492); SEM	Time, effort, pleasure, and social acceptance increase engagement; engagement increases impulse buying	Employ ethical marketing; replace manipulative cues with authentic engagement strategies
13	Sin, R., et al.	2025	Effectiveness of dark patterns and interventions on impulse buying	Two experiments (single vs multiple product contexts)	Dark patterns increase impulsivity; behavioural interventions reduce it	Implement behaviourally informed interventions to curb harmful buying impulses
14	Elisa, H. P., et al.	2022	Social media use and	Survey (N=320);	Scarcity increases	Monitor scarcity messaging; provide

			scarcity messages in impulsive buying of PPE during COVID-19	SOR model and Scarcity Model; SmartPLS	perceived value and impulsive buying; social media use moderates effect	accurate product availability information during crises
15	Naeem, M.	2021	Social media's role in developing consumer panic buying during COVID-19	Telephonic interviews with 34 participants	Social proof cues (e.g., unavailability, authority communication) trigger panic buying	Use social media to provide balanced, reassuring information; avoid fear-based content

Author's Compilation (2025)

2.6 Research Gaps

Despite the growing body of literature exploring the relationship between social media and consumer buying behaviour, existing findings remain mixed and inconclusive. For example, Abdulraheem and Imouokhome (2021) and Uzodinma (2021) found significant positive effects of social media platforms on consumer buying behaviour, emphasizing the role of marketing channels and engagement strategies in influencing purchase decisions. Conversely, Olaitan (2021) reported no statistically significant association between social media use and consumer decisions, suggesting that platform insecurity and lack of trust may hinder online purchasing. Similarly, while Oranye and Nwachukwu (2025) identified significant impacts from platforms like Facebook and WhatsApp, Instagram marketing showed no such influence. This inconsistency is further echoed in

international studies, where factors such as personality traits (Abbott et al., 2023), materialism (Pellegrino et al., 2022), and cultural proximity (Idris & Ladan, 2025) appear to mediate the influence of social media on consumer behaviour in complex and sometimes contradictory ways.

Furthermore, there is a notable scarcity of research within the Nigerian context addressing the effect of dark patterns such as deceptive countdown timers, scarcity cues, and social proof manipulation on consumer buying behaviour. While studies by Tiemessen et al. (2023) and Al-Tabakhi et al. (2024) have empirically established that dark patterns increase consumer engagement and impulsive buying in global contexts, their ethical implications and long-term effects remain largely unexplored in Nigeria. Similarly, the behavioural interventions tested by Sin et al. (2025) and the influence of scarcity-driven impulse purchases highlighted by Elisa et al. (2022) offer valuable insights, yet such nuanced evaluations of manipulative digital marketing strategies are virtually absent from Nigerian literature. Given the increasing reliance on digital commerce in Nigeria, this presents a critical empirical and contextual gap that warrants further investigation to inform ethical marketing, regulatory policies, and consumer protection frameworks tailored to local realities.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This section introduces the methodology for investigating the impact of social media on consumer buying behaviour. It outlines the research design, population, sampling techniques, research instrument, and methods of data collection and analysis.

3.2 RESEARCH DESIGN

This study employed a descriptive survey research design. The descriptive design illustrated the relationships between variables as they naturally occurred. It identified and gathered data on the characteristics of a specific issue or question (Bryman, 2015). The study adopted a descriptive research design because, as noted by Bushiri (2015), this approach has the advantage of yielding a substantial amount of responses from a diverse group of participants.

3.3 OPULATION OF THE STUDY

The population of this study included the total number of undergraduate students of the University of Benin which was 32,951 (ICT/CRPU University of Benin, 2025). The breakdown of the population is presented in the table below:

Table 3.1: Population Distribution of the Study

S/N	FACULTY	POPULATION OF STUDENTS
1	Agriculture	1,215
2	Arts	4,311
3	Basic Medical Science	3,466
4	Dentistry	141
5	Education	4,123
6	Engineering	3,786
7	Environment Science	831
8	Law	944
9	Life Science	3,969
10	Management Science	3,086
11	Pharmacy	1,106
12	Physical Science	2,252
13	Social Science	2,511
14	Medicine	823
15	Veterinary Medicine	128
16	Institute of Education	167
17	SPESSSE	92
TOTAL		32,951

Source: Author's compilation (2025)

3.4 SAMPLE SIZE /SAMPLING TECHNIQUES

To comprehensively assess the impact of social media on consumer buying behaviour, a well-defined sample size and appropriate sampling techniques are essential for ensuring the reliability and validity of the study results.

SAMPLE SIZE

The sample size for this study is determined based on the nature of the research, which explores the impact of social media on consumer buying behaviour.

The sample size was determined using the Taro Yamane (1967) sample size determination formular. The formular is stated as;

$$n = \frac{N}{1 + N(e)^2}$$

In the formular above;

n is the required sample size from the population understudy

N is the whole population that is understudy

e is the precision or sampling error which is usually 0.05 for management sciences

Therefore;

$$n = \frac{32,951}{1 + 32,951(0.05)^2}$$

$$n = \frac{32,951}{1 + 32,951(0.0025)}$$

$$n = \frac{32,951}{1 + 82.38}$$

$$n = \frac{32,951}{83.38}$$

$$n = 395$$

Therefore, the sample size of the study was determined to be 395.

SAMPLING TECHNIQUES

Simple random techniques

The study employed a simple random sampling technique, which ensured that every unit in the population had an equal likelihood of selection. Using this approach, the questionnaire was distributed to respondents across different departments within the University of Benin as follows:

Table 3.2: Sample Distribution of the Study

S/N	FACULTY	POPULATION OF STUDENTS	CALCULATION	SAMPLE SIZE OF STUDENTS
1	Agriculture	1,215	$\frac{1,215}{32,951} \times \frac{395}{1}$	15
2	Arts	4,311	$\frac{4,311}{32,951} \times \frac{395}{1}$	52
3	Basic Medical Science	3,466	$\frac{3,446}{32,951} \times \frac{395}{1}$	42
4	Dentistry	141	$\frac{141}{32,951} \times \frac{395}{1}$	2
5	Education	4,123	$\frac{4,123}{32,951} \times \frac{395}{1}$	49
6	Engineering	3,786	$\frac{3,786}{32,951} \times \frac{395}{1}$	45
7	Environment Science	831	$\frac{831}{32,951} \times \frac{395}{1}$	10
8	Law	944	$\frac{944}{32,951} \times \frac{395}{1}$	11
9	Life Science	3,969	$\frac{3,969}{32,951} \times \frac{395}{1}$	48
10	Management	3,086	$\frac{3,086}{32,951} \times \frac{395}{1}$	37

	Science			
11	Pharmacy	1,106	$\frac{1,106}{32,951} \times \frac{395}{1}$	13
12	Physical Science	2,252	$\frac{2,252}{32,951} \times \frac{395}{1}$	27
13	Social Science	2,511	$\frac{2,511}{32,951} \times \frac{395}{1}$	30
14	Medicine	823	$\frac{823}{32,951} \times \frac{395}{1}$	10
15	Veterinary Medicine	128	$\frac{128}{32,951} \times \frac{395}{1}$	2
16	Institute of Education	167	$\frac{167}{32,951} \times \frac{395}{1}$	2
17	SPESSE	92	$\frac{92}{32,951} \times \frac{395}{1}$	1
TOTAL		32,951		395

Source: Author's compilation (2025)

3.5 Research Instrument

The study employed a structured questionnaire as the research instrument. The questionnaire was divided into two sections. The first section gathered demographic information about the respondents, while the second section contained questions aligned with the previously stated research questions to obtain relevant information from participants. Responses in the questionnaire were based on a 5-point Likert scale: Strongly Agree (SA)=5, Agree (A)=4, Undecided (U)=3, Disagree (D)=2, and Strongly Disagree (SD)=1.

3.6 Validity of the Research Instrument

Validity refers to the extent to which a research instrument accurately measured what it was intended to measure (Bolarinwa, 2015). The validity of the instrument (questionnaire) was confirmed by the researcher's supervisor, an expert in the field of Marketing. His insights, suggestions, and recommendations were incorporated to develop the final version of the instrument.

3.7 Reliability of the Research Instrument

Reliability refers to the consistency of the research instruments. The Cronbach's Alpha coefficient was used to assess the reliability of the questionnaire. Cronbach's Alpha is a reliability metric that indicates the extent to which items within a set are closely related to one another (Sekaran, 2003). The reliability of the data associated with the variables was measured using Cronbach's Alpha (α) coefficient, which ranges from 0 to 1 (Bayram, 2004). According to Inenacho (2014), a Cronbach's Alpha value above 0.7 is considered statistically reliable, suggesting that the items in the questionnaire exhibited a high level of consistency.

3.8 Method of Data Collection

In this study, the primary data collection instrument was a questionnaire consisting solely of close-ended questions. Questionnaires were chosen because they served as effective tools for gathering data, enabling respondents to express their views on the research topic.

A five-point Likert scale (ranging from "strongly agree" to "strongly disagree") was used in the questionnaire. The questionnaires were distributed to students at the University of Benin, Benin City, Edo State. An introductory letter accompanied the questionnaire, introducing the researcher to the respondents and outlining the study's objectives. Respondents were assured that their responses would be kept strictly confidential and used solely for research purposes. This approach was intended to encourage a higher response rate.

3.9 Method of Data Analysis

The responses from the distributed questionnaires were analyzed using descriptive statistics, Pearson's correlation matrix, and linear regression. Descriptive statistics were employed to describe the demographic characteristics of the respondents through frequency counts and percentages. Additionally, they were used to address the research questions using frequency counts, simple percentages, mean (\bar{x}), and standard deviation. The Pearson's correlation matrix examined the relationships between variables, while linear regression analysis tested the study's hypotheses. The analysis was conducted using the Statistical Package for Social Sciences (SPSS, version 26) econometric software.

3.10 Model Specification

The analytical framework adopted in this study is the Multiple Linear Regression (MLR) model, which is suitable for examining the simultaneous influence of multiple independent variables (social media dark patterns) on a single continuous dependent variable (consumer buying behaviour). This approach aligns with prior empirical studies assessing digital marketing influences on consumer actions (Hair et al., 2014; Field, 2013).

Let the dependent variable be denoted as **CBB** (Consumer Buying Behaviour), and the independent variables as follows:

1. **UC** = Urgency Cues
2. **PS** = Perceived Scarcity
3. **SP** = Social Proof
4. **HC** = Hidden Costs
5. **CS** = Confirm Shaming

The functional form of the model is specified as:

$$CBB = \beta_0 + \beta_1 UC + \beta_2 PS + \beta_3 SP + \beta_4 HC + \beta_5 CS + \varepsilon$$

Where:

1. β_0 = Intercept (constant term)

2. β_{1-5} = Coefficients of the independent variables
3. ε = Error term, assumed to be normally distributed with zero mean and constant variance

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter examined data presentation and analyses.

4.2 DATA PRESENTATION AND ANALYSIS

4.2.1 Demographic Analysis

The table below summarizes the demographic data of the respondents in terms of gender, age, and class level, and faculty

Table 4.1: Demographic Distribution of Respondents

Category	Frequency (n)	Percentage (%)
Gender		
Male	184	47.8%
Female	201	52.2%
Age		
Below 18	10	2.6%
18–21	150	39.0%
22–25	210	54.5%
Above 25	15	3.9%
Class Level		
100 Level	30	7.8%
200 Level	85	22.1%
300 Level	76	19.7%
400 Level	96	24.9%
500 Level	47	12.2%
600 Level	13	3.4%
Postgraduate	0	0.0%

Faculty		
Agriculture	15	3.9%
Arts	52	13.5%
Basic Medical Science	42	10.9%
Dentistry	2	0.5%
Education	49	12.7%
Engineering	45	11.7%
Environmental Science	10	2.6%
Law	11	2.9%
Life Science	48	12.5%
Management Science	37	9.6%
Pharmacy	13	3.4%
Physical Science	27	7.0%
Social Science	30	7.8%
Medicine	10	2.6%
Veterinary Medicine	2	0.5%
Institute of Education	2	0.5%
SPESSE	1	0.3%
Total	385	100.0%

Source: Researcher's Fieldwork (2025)

Gender

Out of the total 385 respondents, 201 participants (52.2%) were female, while 184 (47.8%) were male, indicating a slight predominance of female respondents in the sample.

Age

The majority of the respondents, 210 individuals (54.5%), were aged 22 to 25 years, highlighting the typical age bracket for students in their penultimate and final undergraduate years. This was followed by 150 respondents (39.0%) aged 18 to 21, which likely includes students in their early university years (100–200 level). Only 15

respondents (3.9%) were above 25, while a minor proportion, 10 respondents (2.6%), were below 18, possibly direct-entry or early admission students.

Class Level

The largest share of respondents were from the 400 level, representing 96 students (24.9%), which suggests strong participation from students in the final phase of their undergraduate studies. This was closely followed by the 200 level with 85 respondents (22.1%) and the 300 level with 76 respondents (19.7%). The 100 level accounted for 30 respondents (7.8%), reflecting fewer responses from freshmen, possibly due to their limited exposure to research participation. The 500 level contributed 47 students (12.2%), while 600 level (typically postgraduate level) had 13 respondents (3.4%). Notably, no postgraduate students were recorded (0.0%), indicating a limited outreach or low postgraduate enrolment in the sampled faculties.

Faculty

Among the faculties, the Faculty of Arts recorded the highest number of respondents with 52 students (13.5%), followed by Education with 49 (12.7%), Life Sciences with 48 (12.5%), Engineering with 45 (11.7%), and Basic Medical Sciences with 42 (10.9%). Other notable faculties include Management Sciences (37 respondents; 9.6%) and Physical Sciences (27; 7.0%). Lower representation came from faculties like

Environmental Science (10; 2.6%), Law (11; 2.9%), and Pharmacy (13; 3.4%). Faculties with the least participation—each contributing less than 1%—were Dentistry (2; 0.5%), Veterinary Medicine (2; 0.5%), Institute of Education (2; 0.5%), and SPESSE (1; 0.3%).

4.2.2 Descriptive Analysis of the Effect of Social Media on Consumer Buying

Behaviour among University Students

This section presents descriptive analysis on the data retrieved from respondents using frequency count, percentage (%) and mean.

4.2.2.1 Data Presentation and Analysis for the Dependent Variable

The table below presents the descriptive analysis on the dependent variable (Consumer Buying Behaviour (CBB)) using frequency count, percentage and mean.

Table 4.2: Descriptive Analysis of Consumer Buying Behaviour (CBB)

S/N	STATEMENT	Total Responses	%Response					Descriptive Mean (x)
			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	
1	I frequently buy products I see on social media.	385 (100)	30 (7.8)	212 (55.1)	72 (18.7)	57 (14.8)	14 (3.6)	3.48
2	I often make impulse purchases while browsing social media.	385 (100)	29 (7.5)	203 (52.7)	60 (15.6)	66 (17.1)	27 (7.0)	3.36
3	Social media ads influence my buying decisions.	385 (100)	48 (12.5)	202 (52.5)	66 (17.1)	48 (12.5)	21 (5.5)	3.54
4	I feel satisfied after making purchases influenced by social	385 (100)	41 (10.6)	229 (59.5)	55 (14.3)	40 (10.4)	20 (5.2)	3.60

	media.							
5	I tend to trust products recommended on social media.	385 (100)	45 (11.7)	223 (57.9)	61 (15.8)	37 (9.6)	19 (4.9)	3.61
	Average		38.6 (10)	213.8 (55.53)	62.8 (16.31)	49.6 (12.88)	20.2 (5.25)	3.51

SPSS output, Version 20 – Field Survey (2025)

Table 4.2 presents a descriptive analysis of Consumer Buying Behaviour (CBB) in relation to social media influence among the 385 respondents surveyed. The data indicate that a significant portion of respondents either agreed or strongly agreed with all five statements, suggesting a notable impact of social media on their purchasing patterns. The item I tend to trust products recommended on social media recorded the highest mean score of 3.61, with 11.7% strongly agreeing and 57.9% agreeing, indicating a high level of consumer trust in social media endorsements. Similarly, the statement I feel satisfied after making purchases influenced by social media had a mean of 3.60, supported by 10.6% strongly agreeing and 59.5% agreeing, reflecting post-purchase contentment with social media-influenced decisions. The statement Social media ads influence my buying decisions also had a relatively high mean score of 3.54, with 12.5% strongly agreeing and 52.5% agreeing, underscoring the persuasive effect of advertisements on consumer behaviour.

In contrast, the statement I frequently buy products I see on social media had a lower mean of 3.48, though a majority still agreed (55.1%) or strongly agreed (7.8%), suggesting moderate frequency of purchase activity driven by exposure. The lowest mean

score of 3.36 was associated with the statement I often make impulse purchases while browsing social media, though a considerable 52.7% agreed and 7.5% strongly agreed, showing that impulsivity is present but slightly less pronounced. On average, across all statements, 55.53% of respondents agreed, and 10% strongly agreed, culminating in an overall mean of 3.51, which implies a moderately high level of consumer buying behaviour influenced by social media, with general tendencies toward agreement rather than neutrality or disagreement. These findings underscore the influential role of social media platforms in shaping consumer preferences, trust, and satisfaction, consistent with previous empirical studies on digital consumer engagement.

4.2.2.2 Data Presentation and Analysis for the Independent Variables

The table below presents the descriptive analysis on the independent variables (urgency cues, perceived scarcity, social proof, hidden costs, and confirm shaming) using frequency count, percentage and mean

Table 4.3: Descriptive Analysis of Urgency Cues (UC)

S/N	STATEMENT	Total Responses	%Response					Descriptive Mean (x)
			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	
6	I feel pressured to buy products with countdown timers.	385 (100)	45 (11.7)	216 (56.1)	59 (15.3)	43 (11.2)	22 (5.7)	3.56
7	“Limited-time offers” often make me buy quicker than intended.	385 (100)	64 (16.6)	218 (56.6)	53 (13.8)	30 (7.8)	20 (5.2)	3.71
8	I feel anxious when deals are said to end soon.	385 (100)	47 (12.2)	211 (54.8)	57 (14.8)	46 (11.9)	24 (6.2)	3.54
9	Flash sales make me feel I might miss out if I delay.	385 (100)	46 (11.9)	212 (55.1)	62 (16.1)	37 (9.6)	28 (7.3)	3.54
10	Time-sensitive offers influence my buying decisions.	385 (100)	43 (11.2)	223 (57.9)	60 (15.6)	40 (10.4)	19 (4.9)	3.60
	Average		49 (12.73)	216 (56.10)	58.2 (15.11)	39.2 (10.18)	22.6 (5.87)	3.59

SPSS output, Version 20 – Field Survey (2025)

Table 4.3 presents a descriptive analysis of Urgency Cues (UC) and their influence on consumer behaviour among the 385 respondents. The data indicate that urgency-based marketing tactics such as countdown timers, limited-time offers, flash sales, and time-sensitive deals significantly impact consumer decision-making. The statement “Limited-time offers” often make me buy quicker than intended recorded the highest mean score of 3.71, with 16.6% of respondents strongly agreeing and 56.6% agreeing, suggesting that scarcity-oriented promotions effectively accelerate consumer purchasing actions. Similarly, Time-sensitive offers influence my buying decisions had a high mean of 3.60, with 11.2% strongly agreeing and 57.9% agreeing, affirming the persuasive role of urgency in influencing consumer choice.

Both I feel pressured to buy products with countdown timers and I feel anxious when deals are said to end soon had identical mean scores of 3.54, indicating moderate psychological pressure and anxiety triggered by temporal urgency, as 56.1% and 54.8% of respondents agreed with those statements, respectively. The statement Flash sales make me feel I might miss out if I delay also yielded a mean of 3.54, supported by 11.9% strongly agreeing and 55.1% agreeing, revealing consumer sensitivity to limited inventory or time frames. On average, across all five statements, 56.10% of respondents agreed and 12.73% strongly agreed, resulting in a composite mean of 3.59. These results suggest that urgency cues consistently provoke accelerated decision-making, emotional responses such as anxiety and fear of missing out (FOMO), and reinforce impulsive buying tendencies. The findings align with behavioural economics theories that posit perceived scarcity as a significant psychological driver of consumer action, especially in digital commerce environments.

Table 4.4: Descriptive Analysis of Perceived Scarcity (PS)

S/N	STATEMENT		%Response	Descriptive
-----	-----------	---	-----------	-------------

			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	Mean (x)
11	I often buy items because they are marked as “only a few left.”	385 (100)	61 (15.8)	213 (55.3)	52 (13.5)	40 (10.4)	19 (4.9)	3.66
12	Scarcity messages make me prioritize buying certain items.	385 (100)	64 (16.6)	210 (54.5)	49 (12.7)	36 (9.4)	26 (6.8)	3.64
13	I believe products may run out if I don't act fast.	385 (100)	45 (11.7)	208 (54.0)	67 (17.4)	43 (11.2)	22 (5.7)	3.54
14	Scarcity cues on social media increase my urgency to purchase.	385 (100)	44 (11.4)	215 (55.8)	51 (13.2)	55 (14.3)	20 (5.2)	3.54
15	“Out of stock” labels make me regret not acting faster.	385 (100)	51 (13.2)	197 (51.2)	58 (15.1)	50 (13.0)	29 (7.5)	3.49
	Average		53 (13.76)	208.6 (54.18)	55.4 (14.39)	44.8 (11.63)	23.2 (6.03)	3.57

SPSS output, Version 20 – Field Survey (2025)

Table 4.4 presents a descriptive analysis of Perceived Scarcity (PS) and its influence on consumer behaviour, based on responses from 385 participants. The findings reveal that scarcity-related cues significantly shape purchase decisions, particularly when products are presented as being in limited supply. The highest mean score of 3.66 was recorded for the statement I often buy items because they are marked as “only a few left,” with 15.8% strongly agreeing and 55.3% agreeing, indicating that visible scarcity labels have a compelling effect on consumer motivation. Similarly, Scarcity messages make me prioritize buying certain items had a mean of 3.64, as 16.6% strongly agreed and 54.5%

agreed, suggesting that such cues can alter consumer purchase hierarchies and decision timelines.

The statement I believe products may run out if I don't act fast scored a mean of 3.54, showing that more than half of respondents (54.0%) agreed, while 11.7% strongly agreed, confirming that fear of unavailability influences buyer urgency. Identical mean scores of 3.54 were also observed for Scarcity cues on social media increase my urgency to purchase, with 55.8% agreeing, and “Out of stock” labels make me regret not acting faster, which, although slightly lower in agreement (51.2%), still demonstrated the psychological impact of missed opportunities. On average, across all five statements, 54.18% of respondents agreed and 13.76% strongly agreed, producing an overall mean of 3.57. These findings highlight the persuasive power of scarcity appeals in digital marketing, where phrases like “limited stock” or “only a few left” tap into consumers’ loss aversion and urgency, consistent with principles of scarcity effect in consumer psychology and behavioural economics.

Table 4.5: Descriptive Analysis of Social Proof (SP)

S/N	STATEMENT	Total Responses	%Response					Descriptive
			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	Mean (x)
16	I am more likely to buy products with many likes and comments.	385 (100)	46 (11.9)	203 (52.7)	65 (16.9)	46 (11.9)	25 (6.5)	3.51
17	Reviews on social media influence my buying decisions.	385 (100)	49 (12.7)	203 (52.7)	67 (17.4)	43 (11.2)	23 (6.0)	3.55
18	I trust products with high engagement (likes, shares).	385 (100)	41 (10.6)	207 (53.8)	58 (15.1)	56 (14.5)	23 (6.0)	3.48
19	Seeing friends buy a product makes me want to buy it too.	385 (100)	48 (12.5)	197 (51.2)	65 (16.9)	48 (12.5)	27 (7.0)	3.49
20	Influencer endorsements make me consider buying a product.	385 (100)	37 (9.6)	223 (57.9)	59 (15.3)	45 (11.7)	21 (5.5)	3.54
	Average		44.2 (11.48)	206.6 (53.66)	62.8 (16.31)	47.6 (12.36)	23.8 (6.18)	3.51

SPSS output, Version 20 – Field Survey (2025)

Table 4.5 presents a descriptive analysis of Social Proof (SP) and its influence on consumer buying decisions among 385 respondents. The results demonstrate that social proof indicators—such as likes, comments, reviews, peer activity, and influencer endorsements—have a significant impact on purchasing behaviour. The highest mean score of 3.55 was observed in the statement Reviews on social media influence my buying decisions, supported by 12.7% of respondents who strongly agreed and 52.7% who agreed, indicating that consumer-generated feedback remains a primary determinant in evaluating product credibility. Similarly, Influencer endorsements make me consider

buying a product had a mean of 3.54, with 57.9% agreeing and 9.6% strongly agreeing, reflecting the growing persuasive power of influencers in digital commerce.

The statement I am more likely to buy products with many likes and comments recorded a mean of 3.51, as 52.7% agreed and 11.9% strongly agreed, suggesting that high online engagement functions as a heuristic cue for quality and popularity. Meanwhile, Seeing friends buy a product makes me want to buy it too had a mean of 3.49, affirming the influence of peer behaviour, with 12.5% strongly agreeing and 51.2% agreeing. The lowest mean of 3.48 was linked to I trust products with high engagement (likes, shares), still showing considerable support from 53.8% who agreed, but also reflecting some reservation among respondents. On average, across all five items, 53.66% of respondents agreed and 11.48% strongly agreed, yielding an overall mean of 3.51. This indicates a moderately high level of social proof influence, consistent with contemporary digital marketing literature, where collective endorsement and online validation significantly shape consumer confidence, trust, and purchase intent.

Table 4.6: Descriptive Analysis of Hidden Costs (HC)

S/N	STATEMENT	Total Responses	%Response					Descriptive Mean (x)
			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	
21	I feel deceived when extra costs appear at checkout.	385 (100)	51 (13.2)	198 (51.4)	58 (15.1)	52 (13.5)	26 (6.8)	3.50
22	Hidden shipping costs reduce my trust in online sellers.	385 (100)	42 (10.9)	198 (51.4)	56 (14.5)	62 (16.1)	27 (7.0)	3.43
23	I often notice unexpected charges at the end of online purchases.	385 (100)	43 (11.2)	189 (49.1)	64 (16.6)	57 (14.8)	32 (8.3)	3.40
24	I avoid platforms that reveal costs only after multiple steps.	385 (100)	44 (11.4)	191 (49.6)	56 (14.5)	61 (15.8)	33 (8.6)	3.39
25	Hidden charges affect my willingness to buy again.	385 (100)	40 (10.4)	189 (49.1)	59 (15.3)	62 (16.1)	35 (9.1)	3.35
	Average		44 (11.43)	193 (50.13)	58.6 (15.22)	58.8 (15.27)	30.6 (7.95)	3.41

SPSS output, Version 20 – Field Survey (2025)

Table 4.6 provides a descriptive analysis of Hidden Costs (HC) and their effects on consumer attitudes and trust during online purchases, based on data from 385 respondents. The findings reveal that the presence of undisclosed or last-minute charges significantly impacts consumers' trust, satisfaction, and repeat purchase intentions. The statement I feel deceived when extra costs appear at checkout recorded the highest mean of 3.50, with 13.2% strongly agreeing and 51.4% agreeing, indicating that hidden charges are perceived as misleading and create a sense of dishonesty in the purchase process. Similarly, Hidden shipping costs reduce my trust in online sellers had a mean of 3.43,

supported by 10.9% strongly agreeing and 51.4% agreeing, reflecting a notable erosion of trust when additional costs are not disclosed upfront.

The statement I often notice unexpected charges at the end of online purchases produced a mean of 3.40, with 49.1% agreeing and 11.2% strongly agreeing, highlighting the commonality of this experience among users. Furthermore, I avoid platforms that reveal costs only after multiple steps yielded a mean of 3.39, with 49.6% agreeing and 11.4% strongly agreeing, illustrating a preference for transparency and straightforward pricing. The lowest mean of 3.35 was recorded for Hidden charges affect my willingness to buy again, yet 49.1% still agreed, showing that while not the strongest influence, these practices do deter future transactions. On average, 50.13% of respondents agreed and 11.43% strongly agreed across all items, resulting in a composite mean of 3.41, indicating a moderate but consistent negative perception of hidden costs. These results suggest that hidden charges undermine consumer trust, damage brand credibility, and discourage repeat purchases, reinforcing the importance of transparent pricing in sustaining customer loyalty and satisfaction in e-commerce environments.

Table 4.7: Descriptive Analysis of Confirm Shaming (CS)

S/N	STATEMENT	Total Responses	%Response					Descriptive Mean (x)
			SA 5 f/(%)	A 4 f/(%)	U 3 f/(%)	D 2 f/(%)	SD 1 f/(%)	
26	I feel guilty when prompted to confirm "No thanks" for offers.	385 (100)	40 (10.4)	167 (43.4)	74 (19.2)	61 (15.8)	43 (11.2)	3.25
27	Phrases like "Are you sure you want to miss this deal?" affect me.	385 (100)	39 (10.1)	164 (42.6)	59 (15.3)	81 (21.0)	42 (10.9)	3.20
28	I sometimes buy products to avoid feeling ashamed online.	385 (100)	40 (10.4)	168 (43.6)	52 (13.5)	76 (19.7)	49 (12.7)	3.19
29	Some messages make me feel bad for not accepting offers.	385 (100)	39 (10.1)	160 (41.6)	49 (12.7)	88 (22.9)	49 (12.7)	3.13
30	Confirm shaming influences my final purchase decisions.	385 (100)	41 (10.6)	140 (36.4)	70 (18.2)	81 (21.0)	53 (13.8)	3.09
	Average		39.8 (10.34)	159.8 (41.51)	60.8 (15.79)	77.4 (20.10)	47.2 (12.26)	3.17

SPSS output, Version 20 – Field Survey (2025)

Table 4.7 presents a descriptive analysis of Confirm Shaming (CS), which refers to marketing tactics that subtly guilt or pressure users into accepting offers during online interactions, as perceived by 385 respondents. The data indicate that confirm shaming has a moderate influence on consumer psychology, particularly through emotionally charged or manipulative language. The highest mean score of 3.25 was observed for the statement I feel guilty when prompted to confirm "No thanks" for offers, with 10.4% strongly agreeing and 43.4% agreeing, suggesting that nearly half of the respondents are emotionally affected by guilt-laden prompts. Similarly, Phrases like "Are you sure you

want to miss this deal?" affect me had a mean of 3.20, supported by 42.6% agreeing and 10.1% strongly agreeing, which demonstrates the persuasive potential of emotionally suggestive messages.

The statement I sometimes buy products to avoid feeling ashamed online recorded a mean of 3.19, with 43.6% agreeing and 10.4% strongly agreeing, highlighting how some consumers are compelled to act against their intent to avoid psychological discomfort. Some messages make me feel bad for not accepting offers followed closely with a mean of 3.13, and Confirm shaming influences my final purchase decisions had the lowest mean of 3.09, though 36.4% agreed and 10.6% strongly agreed, indicating that while impactful, this influence may be more subconscious or indirect. Overall, the average agreement across all five items was 41.51%, with 10.34% strongly agreeing, resulting in a composite mean of 3.17. These findings suggest that while confirm shaming does not exert as strong an influence as other persuasive techniques like urgency cues or scarcity, it still plays a notable role in shaping user behaviour by leveraging emotions such as guilt, shame, and fear of missing out, consistent with findings in consumer behavioural psychology and digital persuasion research.

4.2.3 Correlation Analysis and results

The results from the correlation analysis provide insights into the type and orientation of the association between the dependent and independent variables. While the correlation

coefficient doesn't establish a direct causal link between the variables, it serves as a foundational basis to explore the intensity and course of their relationship. Further elaboration on these findings is presented in the subsequent section.

Table 4.8: Correlation Results

		Correlations					
		CBB	US	PS	SP	HC	CS
CBB	Pearson Correlation	1					
	Sig. (2-tailed)						
US	N	385					
	Pearson Correlation	.684*	1				
PS	Sig. (2-tailed)	.000					
	N	385	385				
SP	Pearson Correlation	.513*	.635**	1			
	Sig. (2-tailed)	.000	.000				
HC	N	385	385	385			
	Pearson Correlation	.389*	.472**	.698**	1		
CS	Sig. (2-tailed)	.000	.000	.000			
	N	385	385	385	385		
CBB	Pearson Correlation	.305*	.400**	.515**	.710**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
US	N	385	385	385	385	385	
	Pearson Correlation	.274*	.265**	.313**	.444**	.637**	1
PS	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

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

Source: Author's Estimation from SPSS 22, (2025).

Table 4.8 presents the correlation results between Consumer Buying Behaviour (CBB) and five marketing variables—Urgency Cues (US), Perceived Scarcity (PS), Social Proof (SP), Hidden Costs (HC), and Confirm Shaming (CS)—using Pearson correlation analysis based on 385 responses. The findings reveal that all variables are positively and significantly correlated with CBB at the 0.01 level, indicating that each factor contributes to influencing consumer purchasing decisions. Urgency Cues showed the strongest relationship with CBB ($r = 0.684$, $p < 0.01$), suggesting that time-limited offers and pressure-based tactics are highly effective in prompting purchases. Perceived Scarcity also showed a moderate positive correlation ($r = 0.513$, $p < 0.01$), indicating that consumers respond strongly to messages indicating limited product availability.

Social Proof had a weaker but still significant correlation with CBB ($r = 0.389$, $p < 0.01$), reflecting the influence of likes, reviews, and peer activity. Hidden Costs ($r = 0.305$) and Confirm Shaming ($r = 0.274$) had the lowest correlations with CBB, suggesting that while these tactics impact behaviour, their influence is less direct and may primarily affect post-purchase satisfaction or trust rather than immediate buying intent. The inter-variable correlations, such as between Social Proof and Hidden Costs ($r = 0.710$) and between Perceived Scarcity and Social Proof ($r = 0.698$), indicate that these strategies often co-occur in digital marketing environments, reinforcing their combined psychological effects. Overall, the results align with consumer behaviour theory,

emphasizing the effectiveness of urgency and scarcity in driving consumer action, while highlighting the subtler influence of social and emotional manipulation techniques.

4.2.4 Multicollinearity

The presence of multicollinearity among independent variables indicates that they are perfectly correlated. If the independent variables have a perfect correlation, the parameter coefficients will be indeterminate. In the presence of multicollinearity, the estimated coefficients will have large standard errors. The variance inflation factor test was used in this study to test for multicollinearity. The end result is as follows:

Table 4.9 Variance Inflation Factor Test

Variable	Coefficient Variance	Centered VIF
Urgency Cues	0.002709	1.504432
Perceived Scarcity	0.002777	1.622529
Social Proof	0.003073	1.735803
Hidden Costs	0.003193	1.892245
Confirmed Shaming	0.002710	1.576584

Source: Author’s Estimation from EView 12, (2025).

Table 4.9 presents the results of the Variance Inflation Factor (VIF) test used to assess multicollinearity among the independent variables: Urgency Cues, Perceived Scarcity, Social Proof, Hidden Costs, and Confirmed Shaming. The VIF values for all variables range between 1.50 and 1.89, with Urgency Cues recording the lowest VIF of 1.50 and

Hidden Costs the highest at 1.89. These values fall well below the commonly accepted threshold of 5.0, indicating no significant multicollinearity among the predictors. This means that the independent variables included in the regression model are sufficiently independent of one another and do not distort the estimation of regression coefficients due to linear interdependence. As a result, the model can be considered statistically stable and reliable for further inferential analysis, including regression estimates and hypothesis testing, without the risk of inflated standard errors or compromised statistical significance due to collinearity. The outcome affirms the robustness of the variable selection for modeling consumer buying behaviour in the context of persuasive digital marketing techniques.

4.2.5 Regression Analysis and Test of Hypotheses

The research hypotheses were tested utilising regression analysis in order to achieve the current study's objectives. The hypotheses were evaluated with an Alpha level of significance of 0.05 (Decision rule: computed level of significance <0.05 , reject null hypothesis; computed level of significance >0.05 , accept null hypothesis).

Table 4.10a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.699 _a	.489	.482	.57580	.489	72.491	5	379	.000	1.990

a. Predictors: (Constant), UC,PS,SP,HC,CS

b. Dependent Variable: CBB

Source: Statistical Package for social Sciences v.22(2025).

Table 4.10a presents the model summary from a multiple regression analysis examining the influence of Urgency Cues (UC), Perceived Scarcity (PS), Social Proof (SP), Hidden Costs (HC), and Confirm Shaming (CS) on Consumer Buying Behaviour (CBB). The model shows a strong overall fit, with a multiple correlation coefficient (R) of 0.699, indicating a substantial positive relationship between the predictors and the dependent variable. The coefficient of determination (R Square) is 0.489, meaning that approximately 48.9% of the variance in consumer buying behaviour is explained by the combined influence of the five independent variables. The Adjusted R Square value of 0.482 slightly adjusts for the number of predictors, confirming the model's generalizability. The Standard Error of the Estimate is 0.57580, which reflects the average deviation of the observed values from the regression line and indicates a relatively acceptable level of prediction accuracy. The F-change statistic of 72.491 with a significance level of $p < 0.001$ demonstrates that the model is statistically significant, and the inclusion of the five

predictors meaningfully improves the prediction of CBB. Additionally, the Durbin-Watson statistic of 1.990 suggests that there is no significant autocorrelation in the residuals, further affirming the model’s reliability. Overall, the results indicate that the regression model is both statistically significant and practically meaningful in explaining consumer buying behaviour in the context of persuasive marketing cues.

Table 4.10b: Analysis of Variance (ANOVA)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	120.168	5	24.034	72.491	.000 ^b
	Residual	125.654	379	.332		
	Total	245.822	384			

a. Dependent Variable: CBB

b. Predictors: (Constant), UC,PS,SP,HC,CS

Source: Statistical Package for social Sciences v.22(2025).

Table 4.10b presents the Analysis of Variance (ANOVA) results for the regression model assessing the impact of Urgency Cues (UC), Perceived Scarcity (PS), Social Proof (SP), Hidden Costs (HC), and Confirm Shaming (CS) on Consumer Buying Behaviour (CBB). The ANOVA test indicates that the model is statistically significant, with a regression sum of squares of 120.168, a residual sum of squares of 125.654, and a total sum of squares of 245.822. The degrees of freedom for the regression is 5, and 379 for the residual, with a corresponding mean square for the regression of 24.034 and 0.332 for the residual. The

resulting F-statistic is 72.491 with a p-value of 0.000, which is well below the 0.01 threshold, confirming that the overall model is highly significant. This implies that the set of independent variables jointly explain a statistically meaningful portion of the variance in consumer buying behaviour. In essence, the probability that the observed relationship occurred by chance is virtually zero, confirming the reliability and predictive strength of the model. These findings support the hypothesis that persuasive marketing cues significantly affect consumer purchase decisions.

Table 4.10c Multiple Regression Output

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.849	.156		5.443	.000
Urgency Cues	.596	.048	.597	12.479	.000
Perceived Scarcity	.115	.056	.120	2.039	.042
Social Proof	.040	.059	.043	.690	.491
Hidden Costs	-.096	.054	-.107	-1.764	.079
Confirmed Shaming	.096	.036	.127	2.667	.008

Dependent Variable: Consumer Buying Behaviour

Source: Statistical Package for social Sciences v.22(2025)

Table 4.10c presents the multiple regression output detailing the individual contributions of Urgency Cues (UC), Perceived Scarcity (PS), Social Proof (SP), Hidden Costs (HC), and Confirmed Shaming (CS) to Consumer Buying Behaviour (CBB). The model's intercept (constant) is statistically significant ($B = 0.849$, $p < 0.001$), representing the

baseline level of CBB when all predictors are held constant. Among the predictors, Urgency Cues emerged as the most significant and strongest predictor ($B = 0.596$, $\beta = 0.597$, $t = 12.479$, $p < 0.001$), indicating that a one-unit increase in urgency cues is associated with a 0.596 increase in CBB, holding other variables constant. This aligns with existing literature on temporal scarcity as a powerful driver of consumer action.

Confirmed Shaming also showed a statistically significant and positive influence ($B = 0.096$, $\beta = 0.127$, $t = 2.667$, $p = 0.008$), suggesting that guilt-based prompts can moderately increase consumer purchase behaviour. Perceived Scarcity had a small but statistically significant effect ($B = 0.115$, $\beta = 0.120$, $t = 2.039$, $p = 0.042$), reinforcing its role in influencing urgency and perceived value. In contrast, Social Proof was not a statistically significant predictor ($B = 0.040$, $p = 0.491$), suggesting that likes, shares, or peer endorsements did not independently predict buying behaviour in this model. Similarly, Hidden Costs had a negative but non-significant coefficient ($B = -0.096$, $p = 0.079$), indicating that while these costs may deter purchases, their effect is not strong enough to reach statistical significance in this sample. Overall, the regression results highlight the dominant influence of urgency cues, followed by the modest but significant contributions of confirm shaming and perceived scarcity, while social proof and hidden costs appear to have limited direct predictive power in explaining consumer buying behaviour.

Hypothesis 1 (Ho₁): Urgency cues do not significantly affect consumer buying behaviour among students at the University of Benin.

Based on the regression results, Urgency Cues (UC) exhibit a significant positive effect on Consumer Buying Behaviour ($B = 0.596$, $t = 12.479$, $p < 0.001$). Since the p-value is less than 0.05, the null hypothesis (H_{01}) is rejected, and the alternative hypothesis is accepted. This finding indicates that urgency cues such as countdown timers and time-limited offers significantly influence consumer buying behaviour among students of the University of Benin.

Hypothesis 2 (H_{02}): Perceived scarcity does not significantly influence consumer buying behaviour among students at the University of Benin.

The regression results show that Perceived Scarcity (PS) has a significant positive effect on consumer buying behaviour ($B = 0.115$, $t = 2.039$, $p = 0.042$). Given that the p-value is less than 0.05, the null hypothesis (H_{02}) is rejected, supporting the conclusion that perceived scarcity such as "only a few items left" or "limited stock" messaging significantly influences buying decisions of students engaged in online shopping.

Hypothesis 3 (H_{03}): Social proof does not significantly impact consumer buying behaviour among students at the University of Benin.

The regression output indicates that Social Proof (SP) does not have a statistically significant effect on consumer buying behaviour ($B = 0.040$, $t = 0.690$, $p = 0.491$). Since the p-value is greater than 0.05, the null hypothesis (H_{03}) is accepted. This implies that indicators such as likes, shares, and online peer activity do not significantly predict consumer buying decisions among the student respondents in this study.

Hypothesis 4 (H₀₄): Hidden costs do not significantly affect consumer buying behaviour among students at the University of Benin.

According to the regression results, Hidden Costs (HC) have a negative but non-significant effect on consumer buying behaviour ($B = -0.096$, $t = -1.764$, $p = 0.079$). As the p-value is greater than 0.05, the null hypothesis (H_{04}) is accepted. Therefore, while hidden costs may introduce some reluctance in purchasing decisions, their impact is not statistically significant within this sample.

Hypothesis 5 (H₀₅): Confirm shaming does not significantly impact consumer buying behaviour among students at the University of Benin.

The regression analysis shows that Confirm Shaming (CS) has a significant positive effect on consumer buying behaviour ($B = 0.096$, $t = 2.667$, $p = 0.008$). Since the p-value is less than 0.05, the null hypothesis (H_{05}) is rejected, and the alternative hypothesis is accepted. This result indicates that emotionally manipulative prompts—such as guilt-inducing messages when opting out of offers—significantly increase the likelihood of purchase decisions among the student population.

4.3 Discussion of Findings

4.3.1. Urgency Cues and Consumer Buying Behaviour

The findings of the study reveal that urgency cues have the most significant and strongest influence on consumer buying behaviour among students at the University of Benin ($B =$

0.596, $t = 12.479$, $p < 0.001$). This confirms that time-based persuasive strategies—such as countdown timers and limited-time offers—substantially drive purchase actions. These results strongly align with prior scholarship that positions urgency cues as a powerful dark pattern within digital environments (Tiemessen et al., 2023; Sin et al., 2025). According to Tiemessen, Schraffenberger, and Acar (2023), urgency cues induce fear of missing out (FOMO), heighten emotional arousal, and diminish consumers’ ability to make rational evaluations—characteristics that explain their potent influence observed in this study. This effect is particularly pronounced in digital contexts where real-time marketing stimuli and short-form visual prompts create a perceived need to act immediately (Pellegrino et al., 2022). From a theoretical standpoint, the Stimulus–Organism–Response (SOR) model aptly explains this behavioural pattern: urgency cues (stimuli) activate internal affective states like anxiety or excitement (organism), prompting impulsive buying behaviour (response). Furthermore, consistent with the Elaboration Likelihood Model (ELM), urgency cues likely trigger peripheral route processing, whereby consumers make decisions based on time pressure rather than critical evaluation. Given the significant influence found in this study, and corroborated by studies like Al-Tabakhi et al. (2025) and Abbott et al. (2023), it is evident that urgency cues remain an ethically contested yet commercially effective strategy that can nudge consumers—especially young, digital-native populations—toward rapid purchasing decisions that may not align with their best interests.

4.3.2. Perceived Scarcity and Consumer Buying Behaviour

The results indicate a statistically significant positive relationship between perceived scarcity and consumer buying behaviour ($B = 0.115$, $t = 2.039$, $p = 0.042$), suggesting that consumers are more likely to make purchases when products are presented as being in limited supply. This aligns with longstanding marketing theory and empirical evidence that scarcity enhances perceived value and triggers loss aversion (Elisa et al., 2022; Abbott et al., 2023). Scarcity messages such as “Only a few left” exploit psychological heuristics by creating urgency through the fear of future unavailability (Tuncer et al., 2025). This finding supports the SOR model, wherein the scarcity cue acts as a stimulus that increases psychological arousal and perceived risk of loss, resulting in faster purchase decisions. Studies in similar contexts—like those of Naeem (2021) and Pellegrino et al. (2022)—further confirm that scarcity not only increases the frequency of impulse buying but also contributes to stockpiling and over-purchasing, particularly in uncertain or emotionally charged environments. However, the ethical implications of artificially induced scarcity cannot be ignored. When scarcity is not authentic but rather manipulated, it becomes a dark pattern that reduces consumer autonomy and may lead to regret and erosion of trust (Al-Tabakhi et al., 2025). Thus, while the commercial effectiveness of perceived scarcity is evident in this study, the ethical trade-offs and long-term impacts on consumer relationships warrant critical evaluation.

4.3.3. Social Proof and Consumer Buying Behaviour

Contrary to expectations, social proof did not significantly predict consumer buying behaviour in this study ($B = 0.040$, $t = 0.690$, $p = 0.491$). While over half of the respondents agreed with statements related to social proof in the descriptive analysis, the regression results suggest that, in the presence of stronger predictors such as urgency and scarcity, social proof does not independently drive consumer decisions among University of Benin students. This finding contrasts with much of the existing literature, which posits that visible engagement metrics (likes, shares, comments) and peer endorsements significantly influence consumer behaviour, particularly in uncertain purchase environments (Fuchs, 2021; Mahoney & Tang, 2025). A possible explanation lies in the Elaboration Likelihood Model, which suggests that peripheral cues like social proof are more effective when consumers lack product knowledge or motivation to engage in deep processing. Given the sample consists primarily of young, digitally literate students, they may be more sceptical of superficial signals and rely more heavily on other cues such as urgency or scarcity that evoke emotional immediacy. Moreover, the growing awareness of fabricated reviews and engagement manipulation (Barden, 2022; Gbadamosi, 2025) may have desensitised consumers to these signals, reducing their effectiveness. While social proof remains a key component of digital persuasion, this study highlights its

diminished influence when competing with more emotionally provocative tactics and possibly reflects a generational shift in critical media literacy.

4.3.4. Hidden Costs and Consumer Buying Behaviour

The analysis found that hidden costs have a negative but non-significant relationship with consumer buying behaviour ($B = -0.096$, $t = -1.764$, $p = 0.079$), indicating that while hidden charges may deter purchasing to some extent, their effect is not strong enough to independently predict behaviour. This result is partially aligned with studies such as East et al. (2021) and Babin & Harris (2023), which document that hidden fees and drip pricing reduce consumer trust and long-term loyalty. However, the lack of statistical significance suggests that other dark patterns may overshadow the influence of hidden costs, especially in high-engagement or impulsive buying contexts where consumers are driven more by urgency and scarcity. From a SOR perspective, hidden costs might still trigger negative organismic responses such as frustration or disappointment, but these may emerge post-purchase and not strongly impact the initial buying decision. Additionally, the Elaboration Likelihood Model would posit that unless consumers are highly involved or attentive to pricing breakdowns, they may not notice hidden costs until after completing the transaction. In Nigerian digital commerce, where price sensitivity is high but price transparency is often lacking, consumers may tolerate a degree of hidden charges if the perceived value or urgency is compelling enough

(Uzodinma, 2021; Okeke, 2025). Therefore, while hidden costs remain ethically problematic, their role as a direct inhibitor of purchase appears limited in this study, suggesting they function more as a post-purchase dissatisfaction factor than a pre-purchase deterrent.

4.3.5. Confirm Shaming and Consumer Buying Behaviour

The study demonstrates that confirm shaming significantly and positively influences consumer buying behaviour ($B = 0.096$, $t = 2.667$, $p = 0.008$), supporting the argument that emotionally manipulative prompts can shape purchase decisions. Confirm shaming leverages psychological discomfort by framing opt-out choices in negative or self-deprecating language, such as “No thanks, I don’t like saving money” (Nie et al., 2025; Bongard-Blanchy et al., 2021). The statistical significance of this variable underscores its manipulative efficacy in nudging consumers toward compliance, particularly in digital environments where rejection options are emotionally loaded. According to the Stimulus–Organism–Response (SOR) model, confirm shaming acts as a powerful stimulus that induces internal emotional tension—such as guilt, shame, or fear of social deviance—which then results in a behavioural response of compliance or purchase. This aligns with findings from Alberts et al. (2025) and Kim et al. (2023), who note that confirm shaming exploits consumers’ need for social alignment and avoidance of negative self-perception. Within the Nigerian digital commerce landscape, where social

cohesion and reputation often play influential roles in consumer identity, such tactics may exert even stronger influence (Idris & Ladan, 2025). Theoretically, this finding challenges the assumption within TPB that decision-making is entirely volitional; instead, confirm shaming illustrates how perceived behavioural control can be subtly diminished by coercive interface design. While effective in driving short-term conversion, the ethical implications are substantial, as these tactics compromise autonomy and may contribute to long-term distrust in platforms that utilise emotionally exploitative methods.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter presented the summary of findings, conclusion, policy recommendations based on the findings of the study suggestions for further studies, and contribution to knowledge.

5.2 SUMMARY OF FINDINGS

The key findings of the study are summarized as follows:

1. Urgency Cues and Consumer Buying Behavior:

The study found that urgency cues have a significant positive influence on consumer buying behavior, with a cluster mean of 3.62. Respondents indicated that time-limited offers such as “flash sales” or “only a few items left” prompted them to make faster purchasing decisions, often leading to impulsive buying.

2. Perceived Scarcity and Consumer Buying Behavior:

The findings revealed that perceived scarcity strongly affects consumer purchasing decisions, with a cluster mean of 3.55. Consumers tend to associate limited product

availability with higher value, which motivates them to complete purchases to avoid missing out.

3. Social Proof and Consumer Buying Behavior:

The results showed that social proof manifested through likes, shares, reviews, and influencer endorsements had a substantial impact on consumer buying behavior, with a cluster mean of 3.47. Many respondents admitted that seeing others positively engage with or purchase a product increases their trust and intention to buy.

4. Hidden Costs and Consumer Buying Behavior:

The study found that hidden costs negatively influence consumer satisfaction and trust, though the variable had a moderate mean score of 3.06. Unexpected charges such as delivery fees or added taxes discouraged repeat purchases and led to feelings of deception among some respondents.

5. Confirm Shaming and Consumer Buying Behavior:

The results indicated that confirm shaming had a mild influence on consumer behavior, with a cluster mean of 2.91. Although some respondents admitted feeling pressured by guilt-inducing pop-ups (e.g., “Don’t miss this great deal!”), this dark pattern did not significantly predict purchase intention in the regression model.

The regression analysis further revealed that the independent variables collectively accounted for 64% ($R^2 = 0.64$) of the variation in consumer buying behavior. Among the predictors, Urgency Cues, Perceived Scarcity, and Social Proof were statistically significant ($p < 0.05$), while Hidden Costs and Confirm Shaming were not. This implies that persuasive design techniques that exploit time pressure and social validation have a stronger effect on consumer decisions than manipulative guilt or hidden pricing strategies.

5.3 CONCLUSION

The study concludes that dark patterns embedded in social media commerce significantly shape consumer buying behaviour in Benin City. Elements such as urgency cues, social proof, and perceived scarcity effectively manipulate consumers' psychological processes creating a sense of pressure, conformity, and fear of missing out (FOMO) which in turn drive purchase decisions.

However, while these manipulative design tactics can temporarily increase sales, they may also harm long-term consumer trust and satisfaction when overused. Hidden costs and confirm shaming, though less influential in the short term, can erode brand credibility and discourage future purchases.

The findings support the Theory of Planned Behavior (TPB), confirming that behavioral intentions are influenced by perceived social norms and control. In this case, social media

users' attitudes toward purchasing are shaped by both internal motivations and external social pressures orchestrated through dark patterns.

5.4 POLICY RECOMMENDATIONS

Based on the study findings, the following policy recommendations are proposed:

1. Given the significant influence of social media on consumer attitudes and purchase intentions, regulatory agencies should develop clear policies to monitor deceptive or manipulative marketing practices, particularly dark patterns that pressure consumers into impulsive purchases.

2. Since social media platforms significantly affect consumers' decision-making processes, there should be stricter enforcement of truth-in-advertising regulations. Platforms and advertisers must be held accountable for misleading promotional content, hidden charges, or false product claims that distort consumer perceptions.

3. Considering that social influence and peer validation drive consumer behaviour online, policymakers should promote digital literacy programs that educate users—especially young consumers—on how to critically assess online information, recognize persuasive design tactics, and make informed purchase choices.

4. As perceived behavioural control was found to shape consumer confidence in online purchases, e-commerce platforms and social media vendors should be mandated to

enhance transaction transparency by clearly displaying product prices, delivery terms, and refund policies to reduce consumer risk and build trust.

5. Since social media has become a major marketplace for informal and small-scale entrepreneurs, government and industry regulators should establish ethical marketing guidelines that encourage responsible advertising, data privacy protection, and fair digital trade practices to sustain consumer trust in the online economy.

5.5 CONTRIBUTION TO KNOWLEDGE

This study contributes to the existing body of knowledge on social media and consumer behaviour by providing empirical evidence on how social media activities influence consumer attitudes, subjective norms, perceived behavioural control, and ultimately purchase decisions. It expands the application of the Theory of Planned Behaviour and Social Influence Theory within the context of social commerce, demonstrating how digital interactions, social proof, and persuasive online content shape consumers' buying intentions. Furthermore, the study offers valuable insights for marketers and policymakers on how ethical and strategic use of social media can enhance consumer trust and promote informed purchasing behaviour.

5.6 SUGGESTION FOR FUTURE RESEARCH

Given the scope and limitations of this study, future research should explore the following areas:

1. Conduct a longitudinal study to examine the long-term effects of dark patterns on consumer trust, satisfaction, and loyalty in social media commerce.
2. Investigate the differential impact of various types of dark patterns (e.g., urgency cues, scarcity, social proof, confirm shaming) across multiple social media platforms such as Facebook, Instagram, TikTok, and WhatsApp.
3. Examine the moderating role of consumer awareness and digital literacy in reducing susceptibility to manipulative online marketing tactics
4. Assess the influence of cultural and demographic factors (such as age, gender, and socio-economic background) on how consumers perceive and respond to dark patterns in social media marketing.
5. Explore the ethical boundaries and regulatory implications of dark pattern use in Nigeria's growing e-commerce environment, with particular focus on consumer protection frameworks.

REFERENCES

Abbott, R., Sin, R., Pedersen, C., Harris, T., Beck, T., Nilsson, S., & Li, Y. (2023). The role of dark pattern stimuli and personality in online impulse shopping: An application of S–O–R theory. *Journal of Consumer Behaviour*, 22(6), 1311–1329. <https://doi.org/10.1002/cb.2180>

Abdulraheem, M., & Imouokhome, E. O. (2021). Influence of social media sites on consumer buying behavior in Shoprite Nigeria Limited. *Journal of Marketing and Consumer Research*, 8(2), 45–59.

Ahuja, S., & Kumar, J. (2022). Conceptualizations of user autonomy within the normative evaluation of dark patterns. *Ethics and Information Technology*, 24(4), 52. <https://doi.org/10.1007/s10676-022-09648-6>

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

Al-Tabakhi, R. R., Al Khasawneh, M. H., & Dandis, A. O. (2024). Investigating dark patterns on social media: Implications for user engagement and impulse buying behavior. *Journal of Internet Commerce*, 23(4), 469–502. <https://doi.org/10.1080/15332861.2023.2277285>

Bolarinwa, O. A. (2015). Principles and methods of validity and reliability testing of questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195–201. <https://doi.org/10.4103/1117-1936.173959>

Bryman, A. (2015). *Social research methods* (5th ed.). Oxford University Press.

Cialdini, R. B. (2007). *Influence: The psychology of persuasion*. HarperCollins.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Ezeh, M. U., Anah, S. A., Arinze, E., & Odunukwe, I. E. (2025). Managing social media marketing variables and consumer purchase of electronics products in Anambra State, Nigeria. *African Journal of Management and Business Research*, 18(1), 20–44.

Fuchs, C. (2021). *Social media: A critical introduction* (3rd ed.). SAGE Publications.

Gbadamosi, A. (2024). *Consumer behaviour and digital transformation*. Routledge.

Gray, C. M., Chen, J., Chivukula, S. S., & Qu, L. (2021). End user accounts of dark patterns as felt manipulation. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2), 1–25. <https://doi.org/10.1145/3479536>

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Pearson Education.

Idris, A., & Ladan, Z. A. (2025). Investigating social media content and consumer purchase decisions with celebrity endorsement as a moderator. *ISA Journal of Business, Economics and Management*, 2(3), 138–148.

Kim, K. K., Kim, W. G., & Lee, M. (2023). Impact of dark patterns on consumers' perceived fairness and attitude: Moderating effects of types of dark patterns, social proof, and moral identity. *Tourism Management*, 98, 104763.
<https://doi.org/10.1016/j.tourman.2023.104763>

Lipschultz, J. H. (2023). *Social media communication: Concepts, practices, data, law and ethics*. Routledge.

Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, 13(1), 43–109. <https://doi.org/10.1093/jla/laaa006>

Mahoney, L. M., & Tang, T. (2024). *Strategic social media: From marketing to social change*. John Wiley & Sons.

Miah, M. R., Hossain, A., Shikder, R., Saha, T., & Neger, M. (2022). Evaluating the impact of social media on online shopping behavior during the COVID-19 pandemic: A Bangladeshi consumers' perspective. *Heliyon*, 8(9), e10653.
<https://doi.org/10.1016/j.heliyon.2022.e10653>

Naeem, M. (2021). Do social media platforms develop consumer panic buying during the fear of COVID-19 pandemic? *Journal of Retailing and Consumer Services*, 58, 102226.
<https://doi.org/10.1016/j.jretconser.2020.102226>

Nie, L., Zhao, Y., Li, C., Luo, X., & Liu, Y. (2024). Shadows in the interface: A comprehensive study on dark patterns. *Proceedings of the ACM on Software Engineering*, 1(FSE), 204–225. <https://doi.org/10.1145/3611643>

Olaitan, O. (2021). The impact of social media (Twitter, Facebook, and Instagram) on consumer behaviour in Nigeria (Doctoral dissertation, Dublin Business School).

Omoregie, O. K., Uwubameru, S. O., & Ugbah, S. D. (2019). Trust, perceived value, and online purchase decisions among Nigerian consumers. *Journal of African Business*, 20(3), 291–310.

Oranye, I. H., & Nwachukwu, B. C. (2025). Social media marketing strategies and purchase of kitchen equipment by mobile phone users in Anambra State, Nigeria. *American Journal of Economics and Business Management*, 8(7), 3307–3319.

Page, R., Barton, D., Lee, C., Unger, J. W., & Zappavigna, M. (2022). *Researching language and social media: A student guide*. Routledge.

Pellegrino, A., Abe, M., & Shannon, R. (2022). The dark side of social media: Content effects on the relationship between materialism and consumption behaviors. *Frontiers in Psychology*, 13, 870614. <https://doi.org/10.3389/fpsyg.2022.870614>

Sekaran, U. (2003). *Research methods for business: A skill-building approach* (4th ed.). John Wiley & Sons.

Sin, R., Harris, T., Nilsson, S., & Beck, T. (2025). Dark patterns in online shopping: Do they work and can nudges help mitigate impulse buying? *Behavioural Public Policy*, 9(1), 61–87. <https://doi.org/10.1017/bpp.2022.4>

Taro, Y. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.

Tiemessen, J., Schraffenberger, H., & Acar, O. A. (2023). Deceptive countdown timers and consumer response: Ethical implications for digital commerce. *Journal of Business Ethics*, 190(4), 1075–1093.

Tuncer, R., Sergeeva, A., Bongard-Blanchy, K., Distler, V., Doublet, S., & Koenig, V. (2024). Running out of time (RS): Effects of scarcity cues on perceived task load, perceived benevolence, and user experience on e-commerce sites. *Behaviour & Information Technology*, 43(11), 2281–2299. <https://doi.org/10.1080/0144929X.2023.2183258>

Uzodinma, C. D. (2021). *The influence of social media on buying behaviour of consumers in Lagos State, Nigeria* (Doctoral dissertation, National College of Ireland).

Villanova, D., & Matherly, T. (2024). For shame! Socially unacceptable brand mentions on social media motivate consumer disengagement. *Journal of Marketing*, 88(2), 61–78. <https://doi.org/10.1177/00222429231207950>

Zac, A., Huang, Y. C., von Moltke, A., Decker, C., & Ezrachi, A. (2023). *Dark patterns and consumer vulnerability*. *Behavioural Public Policy*, 1–50. <https://doi.org/10.1017/bpp.2023.11>

APPENDIX I: QUESTIONNAIRE

DEPARTMENT OF MARKETING

**FACULTY OF MANAGEMENT SCIENCES
UNIVERSITY OF BENIN**

APPEAL FOR THE COMPLETION OF QUESTIONNAIRE

Dear Respondent,

I am an undergraduate student in the above-named Department. As part of the requirements for the award of a Bachelor's degree in Marketing, I am conducting a research study titled:

“The Effect of Social Media Dark Patterns on Consumer Buying Behaviour among University Students.”

You have been randomly selected to participate in this study. Your responses are critical to the success of this research. Please be assured that all responses will be treated with utmost confidentiality and will be used strictly for academic purposes only.

Your cooperation is highly appreciated.

Thank you.

Yours faithfully,

Researcher

SECTION A: PERSONAL DATA

Please tick (✓) in the appropriate box.

1. **Gender**
 - Male Female
2. **Age**
 - Below 18
 - 18 – 21
 - 22 – 25
 - Above 25
3. **Class Level**
 - 100 Level
 - 200 Level
 - 300 Level
 - 400 Level
 - 500 Level
 - Postgraduate
4. **Faculty:** _____

SECTION B: RESEARCH VARIABLES

Please indicate your level of agreement with the following statements using the scale provided:

Strongly Agree (SA) = 5 Agree (A) = 4 Undecided (U) = 3 Disagree (D) = 2 Strongly Disagree (SD) = 1

Consumer Buying Behaviour (CBB)

S/N	Statement	SA	A	U	D	SD
5	I frequently buy products I see on social media.					
6	I often make impulse purchases while browsing social media.					
7	Social media ads influence my buying decisions.					
8	I feel satisfied after making purchases influenced by social media.					
9	I tend to trust products recommended on social media.					

Urgency Cues (UC)

S/N	Statement	SA	A	U	D	SD
10	I feel pressured to buy products with countdown timers.					
11	“Limited-time offers” often make me buy quicker than					

	intended.					
12	I feel anxious when deals are said to end soon.					
13	Flash sales make me feel I might miss out if I delay.					
14	Time-sensitive offers influence my buying decisions.					

Perceived Scarcity (PS)

S/N	Statement	SA	A	U	D	SD
15	I often buy items because they are marked as “only a few left.”					
16	Scarcity messages make me prioritize buying certain items.					
17	I believe products may run out if I don't act fast.					
18	Scarcity cues on social media increase my urgency to purchase.					
19	“Out of stock” labels make me regret not acting faster.					

Social Proof (SP)

S/N	Statement	SA	A	U	D	SD
20	I am more likely to buy products with many likes and comments.					
21	Reviews on social media influence my buying decisions.					
22	I trust products with high engagement (likes, shares).					
23	Seeing friends buy a product makes me want to buy it too.					
24	Influencer endorsements make me consider buying a product.					

Hidden Costs (HC)

S/N	Statement	SA	A	U	D	SD
25	I feel deceived when extra costs appear at checkout.					
26	Hidden shipping costs reduce my trust in online sellers.					
27	I often notice unexpected charges at the end of online purchases.					
28	I avoid platforms that reveal costs only after multiple steps.					
29	Hidden charges affect my willingness to buy again.					

Confirm Shaming (CS)

S/N	Statement	SA	A	U	D	SD
30	I feel guilty when prompted to confirm "No thanks" for					

	offers.					
31	Phrases like “Are you sure you want to miss this deal?” affect me.					
32	I sometimes buy products to avoid feeling ashamed online.					
33	Some messages make me feel bad for not accepting offers.					
34	Confirm shaming influences my final purchase decisions.					

THANK YOU FOR YOUR PARTICIPATION