



The Role of Behavioral Economics in Understanding Consumer Decision-Making in Digital Marketplaces

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Abstract

This study examined the role of behavioral economics in understanding consumer decision-making in digital marketplaces among young professionals in Dapa, Surigao del Norte. Anchored on behavioral economics, prospect theory, nudge theory, heuristics and biases, and choice overload theory, the study assessed how loss aversion, default bias, anchoring, choice overload, social proof, and nudging influence purchase intention, buying behavior, brand loyalty, satisfaction or regret, and consumer awareness of behavioral triggers. A sequential explanatory mixed-methods design was employed, involving 163 young professionals in the quantitative phase and 10 key informants in the qualitative phase. Survey data were analyzed using frequency, percentage, mean, standard deviation, Pearson correlation, t-test, and ANOVA, while qualitative responses were analyzed using Colaizzi's phenomenological method. Results showed that social proof was strongly manifested and emerged as the most influential behavioral principle, followed by loss aversion, choice overload, and anchoring. Default bias and nudging were moderately manifested. Consumer outcomes showed strong brand loyalty and satisfaction or regret, high purchase intention, and moderate buying behavior. Awareness of personalized recommendations, flash sales, and subscription defaults was highly manifested. Correlation analysis confirmed significant positive relationships among most behavioral principles, awareness variables, and consumer decision-making outcomes, while demographic comparisons showed no significant differences by gender, age, or income. Online shopping frequency, however, produced significant differences in consumer decision-making patterns. The qualitative findings supported the quantitative results by showing that consumers benefit from convenience and simplified choices but remain vulnerable to impulse buying, overspending, manipulation, and reduced autonomy. The study concludes that behavioral design in digital marketplaces is consequential and should be governed by ethical platform practices, transparent communication, consumer literacy, and policy safeguards.

Keywords: Behavioral Economics; Consumer Decision-Making; Digital Marketplaces; Social Proof; Loss Aversion; Nudging; Consumer Protection

1. Introduction

Digital marketplaces have substantially changed how consumers search for information, compare prices, evaluate alternatives, and make purchases. E-commerce platforms now integrate algorithmic recommendations, ratings, reviews, scarcity cues, flash sales, auto-selected options, and personalized promotions into the consumer journey. These features improve convenience and reduce search costs, but they also shape choice environments in ways that may influence consumer judgment (Stalidis et al., 2023; Yan et al., 2018). In emerging digital economies, such



as the Philippines, the expansion of online marketplaces has made consumer decision-making increasingly dependent on platform design and behavioral cues rather than on neutral product information alone.

Behavioral economics provides a relevant lens for examining this issue because it challenges the assumption that consumers always make fully rational decisions. Prospect theory explains that individuals respond more strongly to perceived losses than to equivalent gains, making scarcity cues and limited time offers particularly persuasive (Kahneman & Tversky, 1984). Nudge theory further explains that subtle changes in choice architecture, such as default options and recommended selections, can guide decisions without removing freedom of choice (Thaler & Sunstein, 2008). Choice overload theory also suggests that excessive alternatives can reduce decision quality and increase reliance on shortcuts (Iyengar & Lepper, 2000).

The rationale of the study is grounded in the increasing exposure of young professionals in Dapa, Surigao del Norte to digital marketplaces. As a commercial gateway to Siargao Island, Dapa reflects a developing semi-urban context where professionals use e-commerce platforms and digital payment systems while still navigating the risks of persuasive platform design. Although studies on digital consumer behavior have examined online trust, impulse buying, personalization, and platform engagement, localized evidence remains limited, particularly on whether consumers recognize behavioral triggers and how such triggers affect decision autonomy and ethical perceptions.

The research gap lies in the limited empirical attention given to behavioral economics in semi-urban Philippine digital consumer contexts. Existing studies often rely on urban samples or platform-level analytics and tend to focus on observable purchase outcomes rather than consumers' awareness, interpretation, and ethical evaluation of behavioral influences. This study addresses that gap by examining behavioral principles, awareness of embedded digital triggers, decision outcomes, perceived benefits and risks, and policy implications among young professionals in Dapa, Surigao del Norte.

Theoretical Framework

The study is anchored on behavioral economics, particularly prospect theory, nudge theory, heuristics and biases, and choice overload theory. Prospect theory explains how loss aversion shapes decisions when consumers encounter discounts, free shipping, scarcity, or risk of regret (Kahneman & Tversky, 1984). Nudge theory explains how platform choice architecture, such as pre-selected options and recommended products, influences decisions while preserving formal choice (Thaler & Sunstein, 2008). Heuristics and biases theory explains how consumers rely on anchors, reviews, ratings, and popularity indicators to simplify decisions under uncertainty. Choice overload theory explains why consumers may delay or avoid purchases when confronted with too many alternatives (Iyengar & Lepper, 2000). Together, these theories explain how digital marketplace design can influence purchase intention, actual buying behavior, loyalty, and post-purchase satisfaction or regret.

Conceptual Framework

The conceptual framework presents behavioral economics principles as the main explanatory variables. These include loss aversion, anchoring effect, default bias, choice overload, social proof, and nudging. Consumer awareness, platform design, demographic profile, and online shopping frequency function as mediating or contextual factors that shape the strength of behavioral influence. Consumer decision-making outcomes include purchase intention, buying behavior, brand loyalty, and satisfaction or regret. The expected output of the study is a set of policy guidelines on consumer protection and ethical behavioral influence in digital marketplaces.

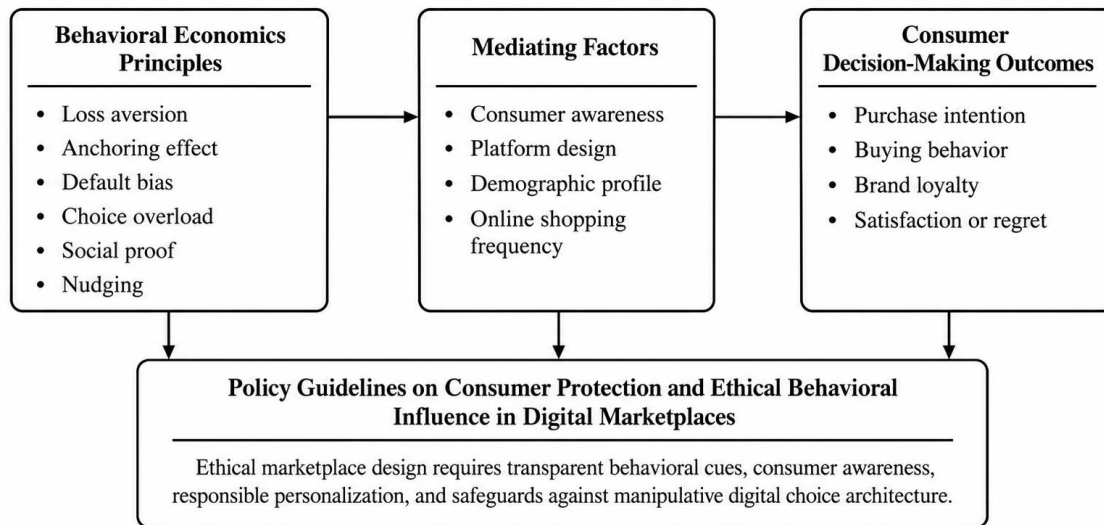


Figure note. Behavioral economics explains how cognitive biases and digital platform design shape consumer decisions and policy implications.

Figure 1. Conceptual framework of the study

Figure 1 illustrates how behavioral economics principles influence consumer decision-making in digital marketplaces through the mediating role of awareness, platform design, demographic profile, and online shopping frequency. The framework assumes that online consumer decisions are shaped not only by preferences and income but also by cognitive biases and platform-based choice architecture. The lower box indicates that the empirical findings are intended to inform policy guidelines on consumer protection and ethical behavioral influence in digital marketplaces.

Aim of the Study

The study aimed to examine the role of behavioral economics principles in understanding consumer decision-making in digital marketplaces among young professionals in Dapa, Surigao del Norte.

Statement of the Problem

1. What is the extent to which behavioral economics principles influence consumer decision-making in digital marketplaces in terms of loss aversion, default bias, anchoring, choice overload, social proof, and nudging?
2. How do these behavioral economics principles shape consumer decision-making in terms of purchase intention, buying behavior, brand loyalty, and satisfaction or regret?
3. To what extent are consumers aware of behavioral triggers embedded in digital marketplaces in terms of personalized recommendations, flash sales or limited time offers, and subscription defaults?
4. What perceived benefits and risks of behavioral influences are identified by consumers?
5. What implications do these behavioral influences have for consumer welfare, ethical business practices, and policy regulation in digital marketplaces?
6. Is there a significant relationship among behavioral economics principles, mediating factors, and consumer decision-making outcomes?
7. Is there a significant difference in consumer decision-making patterns when respondents are grouped according to demographic profile?

8. Based on the findings, what policy guidelines on consumer protection and behavioral influence in digital marketplaces may be proposed?

Hypotheses

- H01: There is no significant relationship among behavioral economics principles, mediating factors, and consumer decision-making outcomes in digital marketplaces.
- H02: There is no significant difference in consumer decision-making patterns when respondents are grouped according to demographic profile.

2. Literature Review

Behavioral economics has become central to explaining consumer behavior in digital marketplaces because online choice environments are structured to activate cognitive shortcuts. Prospect theory remains foundational because it explains why consumers are more sensitive to potential losses than to equivalent gains, making limited-time deals, free shipping thresholds, and scarcity messages psychologically persuasive (Kahneman & Tversky, 1984). More recent e-commerce literature confirms that digital platform features are not passive information tools but decision environments that direct attention, influence perceptions of value, and shape purchase intentions (Fletcher & Vasas, 2024; Hettler et al., 2025). This theoretical and empirical orientation supports the present study's focus on loss aversion, anchoring, default bias, choice overload, social proof, and nudging as measurable behavioral influences.

Digital marketplaces intensify behavioral effects through personalization and interface design. Recommendation systems can reduce search effort and improve product discovery, but they also structure what consumers see and how alternatives are ranked (Stalidis et al., 2023). Online ratings and reviews also serve as social proof, helping consumers make decisions when product quality is uncertain (Yan et al., 2018). For young professionals who shop through digital platforms, these cues can increase confidence and reduce perceived risk, but they may also create dependence on crowd validation and algorithmic recommendations. This is directly linked to the present study because social proof emerged as the strongest behavioral principle among the respondents.

Choice overload is another critical issue in digital marketplaces because online consumers often encounter large product assortments, multiple sellers, and competing promotions. Iyengar and Lepper (2000) showed that excessive choices may reduce satisfaction and decision completion. In digital contexts, consumers may respond to overload by relying on filters, defaults, reviews, and recommendation algorithms. This explains why behavioral economics cannot be limited to individual psychology; it must also examine platform design as a practical condition that shapes consumer autonomy.

Nudging and defaults are particularly relevant to consumer welfare because they influence behavior through subtle design. Thaler and Sunstein (2008) argued that choice architecture can guide decisions without restricting freedom, but digital nudging raises ethical concerns when consumers are unaware that their decisions are being steered. Recent studies on digital nudging and platform design emphasize the need to distinguish helpful simplification from manipulative design (Fletcher & Vasas, 2024; Hettler et al., 2025). This concern is important in the present study, where consumers recognized personalized recommendations and subscription defaults but still reported being influenced by them.

The ethical dimension of behavioral economics is increasingly emphasized in digital commerce. Sahu et al. (2020) observed that behavioral reasoning and persuasive strategies can influence consumer choices in ways that may reduce autonomy when transparency is weak. Consumer protection therefore requires not only regulation of fraud and privacy but also attention to interface-based influence, subscription defaults, urgency cues, and misleading discount framing. This literature supports the present study's policy orientation, particularly its recommendation

for transparent promotional design, default disclosure, digital literacy, and stronger consumer protection mechanisms.

Overall, the reviewed literature indicates that behavioral economics explains both the benefits and risks of digital marketplace design. Behavioral cues can simplify decisions, improve product discovery, and enhance satisfaction; however, they can also promote impulse buying, overspending, dependence on social proof, decision fatigue, and post-purchase regret. The present study contributes localized evidence from Dapa, Surigao del Norte by examining how young professionals experience, recognize, and respond to these behavioral influences in actual digital consumption settings.

3. Methodology

The study employed a sequential explanatory mixed-methods research design. The quantitative phase measured the extent of behavioral economics principles, consumer decision-making outcomes, and consumer awareness of embedded digital triggers. The qualitative phase then explored participants' experiences and interpretations to explain the numerical findings. This design was appropriate because it enabled the study to identify measurable patterns and then interpret the reasons, meanings, benefits, risks, and policy implications underlying those patterns (Creswell & Plano Clark, 2018; Ivankova et al., 2006).

The study was conducted in Dapa, Surigao del Norte, a municipality with increasing e-commerce activity among young professionals. The quantitative respondents were 163 young professionals aged 23 to 35 years who actively engaged in online shopping. The participants came from educational institutions, government offices, public safety agencies, health institutions, a cooperative, and banking institutions in Dapa. Ten key informants were selected from the survey participants for qualitative follow-up interviews to provide deeper explanations of the survey patterns.

Purposive sampling was used because the study required participants who had relevant experience with online shopping and digital marketplaces (Etikan et al., 2016). The inclusion criteria required respondents to be young professionals between 23 and 35 years old, currently employed, engaged in online shopping at least once per month, and willing to provide informed responses. The sample size of 163 was adequate for descriptive and inferential analysis in survey research (Memon et al., 2020), while the 10 qualitative informants provided sufficient depth for key informant analysis (Muellmann et al., 2021).

The researcher used a structured survey questionnaire with five parts. Part I gathered demographic data. Part II measured behavioral economics principles, including loss aversion, default bias, anchoring, choice overload, social proof, and nudging. Part III measured consumer decision-making outcomes, including purchase intention, buying behavior, brand loyalty, and satisfaction or regret. Part IV assessed awareness of personalized recommendations, flash sales or limited time offers, and subscription defaults. Part V used open-ended questions to explore perceived benefits, risks, ethical issues, and policy recommendations. Items were rated using a five-point scale ranging from strongly disagree to strongly agree.

Content and construct validity were addressed through alignment with behavioral economics theory and through expert review. Reliability was assessed using Cronbach's alpha during instrument validation, following accepted standards for social science research (Nunnally & Bernstein, 1994). Quantitative data were analyzed using frequency, percentage, mean, standard deviation, Pearson product-moment correlation, independent samples t-test, and ANOVA. Qualitative responses were analyzed using Colaizzi's phenomenological method, which involved familiarization, extraction of significant statements, formulation of meanings, clustering of themes, exhaustive description, identification of fundamental structure, and validation of findings. Ethical procedures included informed consent, voluntary participation, anonymity, confidentiality, secure data handling, and the right to withdraw from the study.

4. Results and Discussion

Table 1. Demographic profile of respondents

Profile Variable	Category	f	%
Age	23-27 years old	28	17.20
Age	28-31 years old	85	52.10
Age	32-35 years old	50	30.70
Gender	Male	63	38.70
Gender	Female	100	61.30
Monthly income	P15,000-P25,999	68	41.70
Monthly income	P26,000-P35,999	78	47.90
Monthly income	P36,000-P45,999	13	8.00
Monthly income	P46,000 and above	4	2.50
Online shopping frequency	Rarely	44	27.70
Online shopping frequency	Occasionally	92	56.40
Online shopping frequency	Frequently	16	9.80
Online shopping frequency	Very frequently	11	6.70

Table 1 shows that most respondents were aged 28-31 years, female, and within the P26,000-P35,999 monthly income category. Most respondents shopped online occasionally. This profile indicates a digitally exposed young professional group whose purchasing decisions are shaped by both income constraints and regular contact with online marketplace features.

Table 2. Extent of behavioral economics principles

Principle	Mean	SD	Verbal Interpretation	Qualitative Description
Loss aversion	4.01	0.95	Agree	Highly manifested
Default bias	3.31	1.11	Neutral	Moderately manifested
Anchoring	3.92	0.98	Agree	Highly manifested
Choice overload	3.97	0.98	Agree	Highly manifested
Social proof	4.54	0.80	Strongly Agree	Strongly manifested
Nudging	3.21	1.14	Neutral	Moderately manifested

Table 2 shows that social proof was the most strongly manifested behavioral influence, followed by loss aversion, choice overload, and anchoring. This means that respondents placed strong importance on reviews, ratings, popularity indicators, perceived risk, price references, and simplified choices. Default bias and nudging were only moderately manifested, suggesting that respondents were not fully passive in accepting pre-selected options or urgency cues.

Table 3. Consumer decision-making outcomes and awareness of behavioral triggers

Construct	Mean	SD	Verbal Interpretation	Qualitative Description
Purchase intention	3.86	0.97	Agree	Highly manifested
Buying behavior	3.28	1.11	Neutral	Moderately manifested
Brand loyalty	4.36	0.85	Strongly Agree	Strongly manifested
Satisfaction or regret	4.25	0.86	Strongly Agree	Strongly manifested
Awareness: personalized recommendations	4.08	0.84	Agree	Highly manifested
Awareness: flash sales or limited-time offers	4.07	0.92	Agree	Highly manifested
Awareness: subscription defaults	3.91	0.93	Agree	Highly manifested

Table 3 reveals strong brand loyalty and satisfaction or regret, high purchase intention, and moderate buying behavior. The moderate buying behavior result suggests that respondents may express strong intention and loyalty but do not always translate these into frequent or impulsive purchases. Their high awareness of personalized recommendations, flash sales, and subscription defaults indicates that consumers can recognize behavioral triggers even when these triggers continue to influence their decisions.

Table 4. Selected significant correlations among behavioral principles and decision outcomes

Relationship	r	Interpretation
Social proof and purchase intention	.53**	Moderate positive relationship
Social proof and brand loyalty	.62**	Strong positive relationship
Social proof and satisfaction/regret	.70**	Strong positive relationship
Choice overload and purchase intention	.46**	Moderate positive relationship
Choice overload and satisfaction/regret	.57**	Moderate to strong positive relationship
Loss aversion and purchase intention	.42**	Moderate positive relationship
Anchoring and brand loyalty	.48**	Moderate positive relationship
Awareness of flash sales and purchase intention	.50**	Moderate positive relationship
Awareness of personalized recommendations and brand loyalty	.52**	Moderate positive relationship

Table 4 confirms that behavioral principles are meaningfully associated with consumer outcomes. Social proof showed the strongest relationships, especially with satisfaction or regret and brand loyalty. Awareness variables were also positively related to decision outcomes, suggesting that awareness does not necessarily eliminate behavioral influence; instead, consumers may knowingly respond to cues when they perceive them as useful, relevant, or convenient.

Table 5. Differences in consumer decision-making patterns by demographic profile

Grouping Variable	Test Statistic	p-value	Decision
Gender	t = -0.45	0.65	Not significant; fail to reject H0
Age	F = 1.12	0.33	Not significant; fail to reject H0
Monthly income	F = 1.20	0.31	Not significant; fail to reject H0
Online shopping frequency	F = 4.32	0.006	Significant; reject H0

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Table 5 shows that gender, age, and monthly income did not produce significant differences in consumer decision-making patterns. This suggests that digital marketplace interfaces may create relatively similar behavioral environments across demographic groups. However, online shopping frequency produced a significant difference, indicating that consumers who shop more frequently are more exposed to platform cues and may develop stronger responsiveness to behavioral design features.

Table 6. Integration of quantitative and qualitative findings

Area	Quantitative Result	Qualitative Meaning
Social proof	Strongly manifested (M = 4.54)	Reviews, ratings, and popularity reduce uncertainty and validate purchase decisions.
Loss aversion	Highly manifested (M = 4.01)	Consumers avoid risky purchases and fear wasting money or regretting decisions.
Choice overload	Highly manifested (M = 3.97)	Consumers feel overwhelmed by many options and prefer clearer selections.
Default bias	Moderately manifested (M = 3.31)	Consumers sometimes follow defaults for convenience but still evaluate risk.
Nudging	Moderately manifested (M = 3.21)	Flash sales and scarcity cues create urgency but do not influence all consumers equally.
Brand loyalty	Strongly manifested (M = 4.36)	Trust, consistency, and positive experience encourage repeat purchasing.
Satisfaction/regret	Strongly manifested (M = 4.25)	Expectation match produces satisfaction, while pressure and misleading cues create regret.

Table 6 shows convergence between the quantitative and qualitative phases. Consumers found digital marketplace features useful because they simplified choice, provided value cues, and improved convenience. At the same time, participants identified risks involving impulse buying, overspending, misleading offers, manipulative urgency, weak transparency, and possible reduction of consumer autonomy. These findings reinforce the need for ethical digital marketplace practices.

The results demonstrate that behavioral economics principles significantly shape digital consumer decision-making. The strongest influence was social proof, indicating that consumer confidence in online markets remains highly dependent on peer validation and platform reputation cues. While consumers showed awareness of behavioral triggers, awareness did not automatically protect them from influence. Instead, behavioral cues appear to operate through a combination of usefulness, convenience, perceived savings, and trust.

5. Conclusion and Recommendations

The study concludes that behavioral economics provides a strong explanation of consumer decision-making in digital marketplaces among young professionals in Dapa, Surigao del Norte. Social proof, loss aversion, choice overload, and anchoring were the most influential behavioral principles, while default bias and nudging were moderately manifested. Consumer outcomes were characterized by strong brand loyalty, strong satisfaction or regret, high purchase intention, and moderate buying behavior. Significant positive relationships among behavioral principles, awareness variables, and decision outcomes confirm that platform cues and cognitive biases shape online consumer choices. The absence of significant differences by gender, age, and income suggests that digital



marketplace influence operates broadly across respondent groups, while the significant difference by online shopping frequency shows that repeated platform exposure strengthens behavioral responsiveness. Qualitative findings further indicate that consumers benefit from convenience and simplified decision-making but remain vulnerable to impulse buying, overspending, reduced autonomy, and manipulative design.

Based on the findings, digital marketplaces should adopt transparent and ethical design practices by clearly disclosing personalized recommendations, subscription defaults, sponsored placements, scarcity cues, and promotional conditions. Businesses should avoid misleading countdowns, exaggerated discounts, and manipulative defaults while strengthening trust through accurate reviews, seller verification, product authenticity checks, and clear return policies. Policymakers and consumer protection agencies should develop guidelines addressing behavioral influence in digital commerce, particularly in relation to dark patterns, auto-renewals, misleading urgency cues, and algorithmic targeting. Educational institutions and local government units should promote digital and financial literacy programs that help consumers recognize behavioral triggers, manage impulse buying, and make informed online purchases. Future researchers may expand the study to other age groups, regions, and platform types and may use experimental or longitudinal designs to determine causal effects of specific digital nudges on actual purchasing behavior.

Declarations

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CRedit Authorship Contribution Statement

Elfe Ann T. Ranza: Conceptualization, methodology, investigation, data curation, formal analysis, writing-original draft, and writing-review and editing.

Ethical Statement

The study observed informed consent, voluntary participation, confidentiality, anonymity, and the right to withdraw. Data were used only for academic and research purposes.

Declaration of Competing Interest

The author declares no known competing financial interests or personal relationships that could have influenced the work reported in this manuscript.

Data Availability Statement

The data supporting the findings of the study are available from the author upon reasonable request and subject to institutional and ethical restrictions.

AI Usage Disclosure

Artificial intelligence tools were used for language refinement, organization, and formatting support. The author reviewed, verified, and approved the final manuscript and remains responsible for its scholarly content.

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