Post-Purchase Cognitive Dissonance among Online Impulsive Buyers: A Study of Demographic Influences

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Abstract

With the quick growth of e-commerce platforms, online impulsive purchasing has grown more prevalent. However, the unplanned nature of these transactions sometimes results in psychological distress once the transaction is over. Customer happiness, return behavior, and repurchase intention are all significantly impacted by this discomfort, which is conceptualized in the marketing literature as post-purchase cognitive dissonance or buyer's regret. The current research looks at the degree of post-purchase cognitive dissonance among impulsive internet shoppers and if it differs depending on important demographic factors including gender, income, employment, and marital status. Using a structured questionnaire, 400 respondents provided primary data, which was then analyzed using one-way ANOVA, independent samples t-tests, and descriptive statistics. With a mean dissonance score of 4.175 on a five-point scale, the results show that post-purchase regret is widespread among online impulsive shoppers. The degree of dissonance was shown to be strongly influenced by both gender and marital status, with married and female respondents expressing more regret than their single and male counterparts, respectively. Additionally, occupation was shown to be a major difference, with self-employed respondents having the lowest levels of dissonance and students the most. However, the degree of post-purchase cognitive dissonance was not much impacted by income. The study adds to the expanding corpus of research on post-purchase consumer psychology and provides useful recommendations for online merchants looking to reduce buyer's regret and improve enduring client connections.

Key words- Post-purchase cognitive dissonance, online impulsive buying, consumer regret, buyer's remorse, demographic factors, e-commerce, consumer behavior.

1. Introduction

The widespread use of digital payment methods, mobile apps, and e-commerce platforms has drastically changed how people shop, making judgments about what to buy quicker, easier, and far less thoughtful than in conventional retail environments. This change has led to a noticeable increase in impulsive purchasing behavior, which is characterized by an abrupt, sometimes overwhelming need to make a purchase right now with little thot given to alternatives or potential outcomes. Even if these purchases could provide customers with momentary hedonic satisfaction, after the initial thrill of purchasing wears off, they often leave them feeling regret. Under the framework of cognitive dissonance theory, this regret—which stems from the psychological pain that occurs when a person's post-purchase appraisal contradicts their previous beliefs or expectations—is extensively researched.

Marketers are especially interested in post-purchase cognitive dissonance because it has a direct impact on long-term client loyalty, bad word-of-mouth, product returns, and brand switching. Online businesses may create more successful post-buy communication, return policies, and customer engagement tactics by knowing which consumer groups are more likely to experience this kind of dissonance after making an impulsive purchase. In light of this, the current research aims to quantify the degree of post-purchase cognitive dissonance among impulsive online shoppers and investigate how this dissonance varies by gender, income, employment, and marital status.

2. Review of Literature

Festinger's (1957) theory of cognitive dissonance, which maintains that people feel psychological discomfort when they hold two or more conflicting cognitions, serves as the theoretical basis for this study. This discomfort drives people to lessen the inconsistency, frequently by justifying the decision or expressing regret. This discomfort, also known as post-buy or post-decisional dissonance, usually manifests in the context of consuming after a purchase has been made. Powers and Jack (2013) extended this framework to retail behavior and suggested that post-purchase dissonance can take two different forms: emotional dissonance, which results from the consumer's affective reaction to an unfavorable outcome, such as blaming the seller or their own decision-making, and product dissonance, which occurs when the purchased item does not match pre-purchase expectations. Because impulsive purchases avoid the cognitive appraisal process that usually comes before planned purchases, they are thot to be more vulnerable to producing such dissonance. In his groundbreaking conceptualization of the buying impulse, Rook (1987) defined impulsive buying as an abrupt and spontaneous desire to purchase, often accompanied by an emotional and occasionally conflicted psychological state. This definition laid the foundation for subsequent research that directly linked impulsivity to regret after a purchase.

This relationship has been confirmed by empirical research in the online shopping setting. In a research of clothing e-commerce websites, Chen, Chen, and Lin (2023) discovered that impulsive purchasing behavior was a major antecedent of post-purchase dissonance and, therefore, of buyers' return intents, highlighting the economic significance of comprehending dissonance causes. Similar to this, Chetioui and El Bouzidi (2023) looked at the relationship between Gen Z shoppers' online impulsive purchases and cognitive dissonance. They found that these relationships varied significantly by gender,

indicating that demographic traits may moderate the experience of dissonance. Zeelenberg, Beattie, van der Pligt, and de Vries (1996) provided a behavioral explanation for why certain consumer segments report more severe post-purchase regret than others by demonstrating how regret aversion influences decision-making and subsequent assessments of choice outcomes.

In the Indian context, demographic variations in impulsive purchasing and its effects have also drawn attention. Demographic profiling is a useful lens thru which to examine both the antecedents and outcomes of impulsive buying, according to Sharma, Rana, Tripathi, and Kumar's (2020) study of impulse buying behavior among North Indian consumers with reference to age, gender, and marital status. They discovered that unmarried women under thirty showed the highest propensity for impulsive purchases. When considered collectively, the reviewed literature indicates that although post-purchase cognitive dissonance after impulsive purchases is a well-established phenomenon, its variation across demographic subgroups, especially in the Indian online retail context, calls for additional empirical investigation. This is what the current study attempts to do.

3. Objectives of the Study

1. To assess the level of post-purchase cognitive dissonance experienced by online impulsive buyers.
2. To examine the influence of gender on the level of post-purchase cognitive dissonance.
3. To examine the influence of income on the level of post-purchase cognitive dissonance.
4. To examine the influence of occupation on the level of post-purchase cognitive dissonance.
5. To examine the influence of marital status on the level of post-purchase cognitive dissonance.

4. Hypotheses

H_{01}: There is no significant difference in post-purchase cognitive dissonance among respondents with respect to gender.

H_{02}: There is no significant difference in post-purchase cognitive dissonance among respondents with respect to income.

H_{03}: There is no significant difference in post-purchase cognitive dissonance among respondents with respect to occupation.

H_{04}: There is no significant difference in post-purchase cognitive dissonance among respondents with respect to marital status.

5. Research Methodology

The research design used in the study is both quantitative and descriptive. A structured questionnaire with a five-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5), was used to gather primary data from 400 online buyers who had made impulsive purchases in order to evaluate the degree of post-purchase regret. The Statistical Package for the Social Sciences (SPSS) was used to analyze the gathered data. The total degree of post-purchase cognitive dissonance was evaluated using frequency distribution and descriptive statistics (mean and standard deviation). Dissonance levels across gender (male/female) and marital status (married/unmarried) categories were compared using independent samples t-tests, and differences between income and occupation categories—each consisting of more than two groups—were examined using one-way ANOVA. Throughout, a significance criterion of $p < 0.05$ was used.

6. Data Analysis and Findings

6.1 Overall Level of Post-Purchase Cognitive Dissonance

Respondents were asked to indicate their level of agreement with the statement, 'After I make an online impulse purchase, I regret it.' The frequency distribution is presented in Table 1.

Response	Frequency	Percent
Strongly Disagree	13	3.3
Disagree	5	1.3
Neutral	10	2.5
Agree	243	60.8
Strongly Agree	129	32.3
Total	400	100.0

Table 1 demonstrates that the vast majority of respondents—60.8% agreeing and 32.3% strongly agreeing—experience post-buy regret after making an impulsive internet purchase. Just 4.6% of respondents (strongly disagree and disagree combined) said they had no regrets of this kind. This trend is supported by the descriptive statistics shown in Table 2, which show a consistently high level of cognitive dissonance across the sample with a mean score of 4.175 (SD = 0.813) on the five-point scale, well above the scale midpoint of three. Rather than being concentrated in a tiny sub-group, the relatively low standard deviation indicates that respondents' feelings of regret are rather universal.

Statistic	Value
N	400
Mean	4.1750
Std. Deviation	.81304

6.2 Post-Purchase Cognitive Dissonance and Gender

An independent samples t-test was conducted to examine whether post-purchase cognitive dissonance differs significantly between male and female respondents.

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	230	4.0913	.87439	.05766
Female	170	4.2882	.70868	.05435

Test	t	df	Sig. (2-tailed)	Mean Difference
Equal variances assumed	-2.409	398	.016	-.19693
Equal variances not assumed	-2.485	394.594	.013	-.19693

Compared to male respondents (M = 4.0913), female respondents reported a greater mean level of post-purchase regret (M = 4.2882). A statistically significant difference between the two groups was shown by the independent samples t-test's significance values of.016 (equal variances assumed) and.013 (equal variances not assumed), both of which were below the 0.05 cutoff. This leads to the rejection of

the null hypothesis (H01) and the conclusion that gender has a major impact on post-purchase cognitive dissonance, with female online impulsive consumers feeling more remorse than their male counterparts. This result is in accordance with the findings of Chetioui and El Bouzidi (2023), who also noted gender-based variations in the connection between cognitive dissonance and impulsive online purchases.

6.3 Post-Purchase Cognitive Dissonance and Income

A one-way ANOVA was conducted to examine differences in post-purchase cognitive dissonance across five income categories.

Income Group	N	Mean	Std. Deviation
Up to 3 lakhs	80	4.0750	.97792
3-6 lakhs	80	4.1125	.82667
6-10 lakhs	80	4.0750	.95168
10-15 lakhs	80	4.2625	.70699
Above 15 lakhs	80	4.3500	.47998
Total	400	4.1750	.81304

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.975	4	1.244	1.898	.110
Within Groups	258.775	395	.655		
Total	263.750	399			

Mean dissonance scores show a little increase trend with increasing income, going from 4.0750 for respondents making up to 3 lakhs to 4.3500 for those making more than 15 lakhs. However, while the significance value is higher than the 0.05 cutoff, the ANOVA findings (F = 1.898, p =.110) show that this change is not statistically significant. As a result, the null hypothesis (H02) is accepted, and it is determined that post-purchase cognitive dissonance is not significantly impacted by wealth. This implies that, rather than being largely influenced by the size of the transaction in relation to the buyer's earning potential, regret after an impulsive internet purchase is a pretty general psychological reaction that cuts across economic categories.

6.4 Post-Purchase Cognitive Dissonance and Occupation

A one-way ANOVA was conducted to examine differences in post-purchase cognitive dissonance across occupational categories.

Occupation	N	Mean	Std. Deviation
Self-employed	99	3.9596	.99918
Salaried	152	4.2105	.77743
Professional	114	4.2544	.63541
Homemaker	16	4.3125	.60208
Student	19	4.4211	.96124
Total	400	4.1750	.81304

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.957	4	1.739	2.675	.032
Within Groups	256.793	395	.650		
Total	263.750	399			

Self-employed respondents reported the lowest amount of regret (M = 3.9596), while students reported the greatest mean level of post-purchase regret (M = 4.4211), followed by homemakers (M = 4.3125), professionals (M = 4.2544), and salaried respondents (M = 4.2105). Because the significance value is less than the 0.05 cutoff, the ANOVA findings (F = 2.675, p =.032) verify that this change is statistically significant. As a result, the null hypothesis (H03) is rejected, and it is determined that employment has a major impact on post-purchase cognitive dissonance. While self-employed respondents, who have more direct control over their earnings and spending decisions, seem less likely to experience regret, students may have more regret due to their relatively small and unstable disposable income, which could increase the psychological cost of an unplanned purchase.

6.5 Post-Purchase Cognitive Dissonance and Marital Status

An independent samples t-test was conducted to examine differences in post-purchase cognitive dissonance between married and unmarried respondents.

Marital Status	N	Mean	Std. Deviation	Std. Error Mean
Married	222	4.2703	.60084	.04033
Unmarried	178	4.0562	1.00686	.07547

Test	t	df	Sig. (2-tailed)	Mean Difference
Equal variances assumed	2.637	398	.009	.21409
Equal variances not assumed	2.502	274.578	.013	.21409

Unmarried respondents showed more variety in their replies (SD = 1.00686 against SD =.60084), while married respondents reported a higher mean level of post-purchase regret (M = 4.2703) than unmarried respondents (M = 4.0562). A statistically significant difference between the two groups was confirmed by the independent samples t-test, which yielded significance values of.009 (equal variances assumed) and.013 (equal variances not assumed), both of which were below the 0.05 threshold. As a result, the null hypothesis (H04) is rejected, and it is determined that marital status has a considerable impact on post-purchase cognitive dissonance, with married respondents feeling more remorse than single respondents. This tendency could be a reflection of the shared family responsibilities and increased financial obligation that are usually associated with marriage, which might exacerbate the psychological distress that follows an impulsive, unexpected expense.

7. Discussion

The results of this study support the theory put forth by Festinger (1957) and later applied to consumer behavior by Powers and Jack (2013) that post-purchase cognitive dissonance is a widespread and psychologically significant consequence of online impulsive buying. The vast majority of online impulsive purchasers in our group express regret after their purchase, with a mean dissonance score of

4.175 out of 5. our supports Rook's (1987) description of impulsive purchasing as a spontaneous behavior commonly followed by later emotional conflict.

A more complex picture is shown by the demographic study. Both marital status and gender emerged as significant differentiators, with women and married people reporting higher levels of dissonance. This pattern is generally consistent with Sharma et al.'s (2020) findings on demographic variation in impulse buying propensity and Chetioui and El Bouzidi's (2023) observation that gender moderates the relationship between online impulsive buying and cognitive dissonance. Occupation was also shown to be a major determinant; self-employed respondents, who have more control over their income, reported the least regret, while students, who usually have less financial autonomy, reported the most. In contrast, income was not found to have a significant impact on dissonance levels. This suggests that the psychological discomfort that follows an impulsive purchase is shaped more strongly by social role, responsibility, and emotional investment in the purchase decision than by the buyer's earning capacity. This is consistent with the regret-aversion framework proposed by Zeelenberg et al. (1996) and the emotional dissonance dimension identified by Powers and Jack (2013).

8. Conclusion

The purpose of this research was to measure the degree of post-purchase cognitive dissonance among impulsive internet shoppers and investigate how it varies by gender, income, employment, and marital status. The results show that post-purchase regret is a common occurrence among impulsive internet shoppers, with the vast majority of respondents expressing regret after making an impulsive purchase. The degree of dissonance experienced was shown to be statistically significantly influenced by gender, employment, and marital status among the demographic factors analyzed, but not by wealth. In particular, male, single, and self-employed respondents reported more lower levels of post-purchase cognitive dissonance, while female, married, and student respondents reported somewhat greater levels. These results provide important information for both academic researchers and e-commerce practitioners by highlighting the fact that post-purchase cognitive dissonance in the online impulsive buying context is shaped more by social roles, responsibilities, and emotional investment in the purchase decision than by financial capacity.

9. Suggestions

9.1 Managerial Suggestions

Online merchants should create post-purchase communication tactics that are especially tailored to the needs of the high-dissonance categories found in this research, which include married, female, and student clients. Personalized follow-up communications, clear and simple return and exchange procedures, and material that emphasizes the value of the product may all help reduce regret and stop bad word-of-mouth or cart abandonment on subsequent visits. Retailers should implement a widely applicable post-purchase interaction strategy across price points rather than limiting such interventions to premium or budget sectors alone, given the little income-based variance seen. To lessen the possibility of expectation-mismatch, which causes product-related dissonance, retailers may also think about implementing decision-support aids at the moment of purchase, such as sizing recommendations, thorough product descriptions, and customer reviews. Offering flexible payment choices, such as part-payment or buy-now-pay-later options with explicit conditions, may help lower the

financial worry that seems to be a contributing factor to higher post-purchase regret in occupational categories like students.

9.2 Suggestions for Future Research

By adding other psychological concepts like materialism, self-control, and impulsivity qualities as mediating or moderating factors in the association between online impulsive purchasing and post-purchase cognitive dissonance, future study might build on this work. It would also be possible to determine if repeated exposure to post-purchase regret changes future impulsive purchasing tendencies by using longitudinal designs that follow the same respondents across many purchase cycles. Furthermore, comparative research across urban and rural respondent groups and across product categories (such as clothing, electronics, and foodstuffs) might improve our knowledge of this phenomenon's demographics and context.

10. Limitations of the Study

There are several restrictions on the research. The results may not be as applicable to other areas or cultural contexts since the sample was limited to 400 respondents from a particular geographic environment. A multi-item validated scale of cognitive dissonance might provide a more nuanced assessment in future research, even if the study's single-item measure of post-purchase regret is descriptively useful. Additionally, the cross-sectional design only records dissonance at one particular moment in time; it does not take into consideration how this regret could change or fade over the weeks that follow the purchase.

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