

A STUDY ON THE ROLE OF INTERACTIVE DIGITAL ADS IN SHAPING IMPULSE BUYING BEHAVIOUR

Subhashini S¹, Dr. Murali Krishnan*²

Student, II MBA Department of Management Studies, School of Management Studies,
Vels Institute of Science Technology and Advanced Studies (VISTAS), Pallavaram, Chennai¹

Assistant Professor, Department of Management Studies, School of Management Studies,
Vels Institute of Science Technology and Advanced Studies (VISTAS), Pallavaram, Chennai²

*Corresponding Author

Abstract: This study explores the impact of interactive digital advertisements on impulse buying behavior among college students, with a focus on consumer engagement and platform usage. Using responses from 290 participants and non-parametric analyses (Spearman's correlation, ANOVA, and Regression), the findings reveal significant positive relationships between all three predictors and impulsive buying, with consumer engagement showing the strongest influence. Gender-based differences were also statistically significant. The study suggests that marketers should prioritize emotionally engaging and interactive ad content tailored to younger audiences to enhance impulse purchases and maximize advertising effectiveness. The results underscore the importance of platform-specific strategies and highlight the psychological drivers of impulsive consumer behavior in the digital age. By leveraging interactivity and personalization, brands can build stronger emotional connections and influence purchasing decisions more effectively. Future research could explore longitudinal effects and compare cross-cultural differences in digital ad responsiveness.

Keywords: interactive ads, impulse buying, consumer engagement, digital platforms, college students

I. INTRODUCTION

The emergence of personalized and interactive marketing strategies that engage customers in real time has changed the landscape of digital advertising. In contrast to conventional advertisements, interactive formats—which include gamification, dynamic content, and clickable elements—create a two-way dialogue that has the power to greatly affect buyers' decisions.

In the digital age, impulse buying—which is defined as spontaneous and unplanned purchases—has increased dramatically as a result of continuous exposure to persuasive content on social media and mobile platforms. College students are particularly susceptible to these triggers because they are frequent users of digital devices. Brands are focusing on turning engagement into sales as they depend more and more on real-time analytics and platform-specific ad formats. "Swipe-up to buy" and "limited-time offers" are examples of features designed to elicit quick reactions.

This study investigates the impact of interactive digital ads on impulse buying behaviour among college students, examining how platform choice, ad engagement, and interactivity shape consumer decisions. The findings aim to offer actionable insights for marketers to develop more effective, data-driven strategies.

OBJECTIVES OF THE STUDY

1. To investigate the effectiveness of interactive features.
2. To compare consumer responses to personalized interactive ads across different platforms
3. To give suggestions based on my study.

RESEARCH QUESTION

1. To what extent do interactive digital advertisements influence impulsive buying behavior among college students?
2. How does consumer engagement with interactive ads relate to impulsive buying tendencies?

3. Does the type of digital platform used impact the effectiveness of interactive advertisements in driving impulsive purchases?
4. Are there significant differences in impulsive buying behavior across demographic groups, particularly gender?
5. To what degree do interactive ads, platform usage, and consumer engagement collectively predict impulsive buying behavior?

SIGNIFICANCE OF THE STUDY

This study is important because it clarifies how interactive digital ads are increasingly influencing impulsive consumer behavior, especially among college students, a highly digital and impressionable group. The study provides marketers with important insights to create more efficient, interesting, and focused advertising campaigns by examining the platform-based and psychological elements that influence impulsive purchases. Businesses can increase customer conversion rates and optimize return on investment (ROI) in digital campaigns by comprehending the impact of consumer engagement and ad interactivity. Furthermore, the results of the study on the gender differences in impulsive purchasing lay the groundwork for customized marketing strategies aimed at particular audience segments.

II. LITERATURE REVIEW

Lim et al. (2016) highlighted the significance of interactivity in digital advertising. They discovered that the attractiveness and degree of engagement of ads are greatly increased by interactive features like swiping, tapping, and clicking. These characteristics eventually impact purchase intentions by drawing in and holding the interest of customers. According to their findings, interactivity creates a two-way dialogue between the brand and its customers, giving them a sense of control and personalization that traditional advertising formats frequently do not offer.

Rook and Fisher (1995) developed one of the most widely cited impulse buying scales in consumer research. Their study defined impulsive purchases as emotional and spontaneous actions rather than rational decisions. They emphasized the role of emotional states, personal gratification, and normative influences in triggering such behavior. Their scale is instrumental in assessing factors like unplanned purchases, emotional excitement, post-purchase guilt, and the lack of pre-purchase planning—elements particularly relevant in digital contexts where interactive ads can provoke instant consumer reactions.

Dehghani and Tumer (2015) investigated how advertising on social media, especially Facebook, affects consumers' intentions to buy. Their study found that because of their high visibility, innovative presentation, and capacity to target particular demographics, interactive and personalized ads are more successful. Using their framework as a guide, the current study assesses how users react to interactive advertisements on Facebook, Instagram, YouTube, and Snapchat while taking into account how platform-specific formats (such as reels, stories, and clickable video ads) improve user engagement, trust, and attention.

Akram et al (2018) examined how social media influencers contribute to impulsive purchases in the fashion sector. Despite being domain-specific, their conclusions can be applied to more general contexts of digital advertising. The study showed that purchase intention is greatly increased by personalized, persuasive content, particularly when paired with visual appeal and social proof. Their research bolsters the idea that interactive digital ads enhance brand recall, encourage word-of-mouth advertising, and encourage impulsive purchases.

III. RESEARCH METHODOLOGY

RESEARCH DESIGN:

A **descriptive research design** was used to investigate the impact of interactive digital ads on impulse buying behavior among college students. It provided a quantitative approach to understanding the relationships between interactive ads, platform usage, and impulse buying.

SAMPLING TECHNIQUE:

Convenience sampling was used to select participants based on availability and willingness to participate, focusing on college students.

SAMPLE SIZE: 290

DATA COLLECTION:

- **Instrument:** A structured **Likert scale questionnaire** was used to collect data.
- **Data collected through :** Google forms

DATA ANALYSIS:

- **Software:** Data were analyzed using SPSS.
- **Tests:**
 - Spearman's Correlation
 - ANOVA
 - Regression Analysis

IV. RESULTS AND DISCUSSION

4.1 CORRELATION ANALYSIS:

Variables	interactive_ads	platform_used	engagement_with_ads	impulsive_buying
interactive_ads	1.000	.539	.615	.635
platform_used	.539	1.000	.608	.579
consumer_engagement_with_ads	.615	.608	1.000	.672
impulsive_buying	.635	.579	.672	1.000

N = 290 for all correlations

Significance (2-tailed) = .000 for all values marked with

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

HYPOTHESIS:

- **Null Hypothesis (H₀):** There is no significant correlation between the impulsive buying and **interactive digital ads, platform used, and consumer engagement**
- **Alternative Hypothesis (H₁):** There is a significant correlation between the the impulsive buying and **interactive digital ads, platform used, and consumer engagement**
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INTERPRETATION:

There are significant positive correlations between impulsive buying and all three predictor variables. The strongest relationship is between consumer engagement and impulsive buying ($\rho = 0.672$), followed by interactive ads ($\rho = 0.635$) and platform used ($\rho = 0.579$). All p-values are $< .01$, indicating strong evidence against the null hypothesis.

RESULT:

There is a statistically significant positive correlation between the dependent variable (impulsive buying behavior) and all three predictor variables—**interactive digital ads, platform used, and consumer engagement** ($p < .01$). Therefore, the null hypothesis is rejected in favor of the alternative hypothesis, indicating a strong positive association between these variables.

4.2 ONE-WAY ANOVA:

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Between Groups	6366.877	1	6366.877	81.863	.000
Within Groups	22398.999	288	77.774		
Total	28765.876	289			

HYPOTHESES:

Null Hypothesis (H₀): There is no significant difference in impulsive buying behavior between different genders.

- **Alternative Hypothesis (H_1):** There is a significant difference in impulsive buying behavior between genders.

INTERPRETATION:

- The **F-value** is **81.863**, which is substantially high, indicating a large variance between the groups compared to the variance within the groups.
- The **p-value (Sig.)** is **.000**, which is less than the significance level of 0.05, indicating that the result is statistically significant.

Since the grouping variable is **gender**, this means there is strong evidence to reject the null hypothesis, suggesting that **impulsive buying behavior significantly differs between males and females**.

RESULT:

Since the p-value is 0.000 (which is less than 0.05), we reject the null hypothesis. This indicates that there is a statistically significant difference in impulsive buying behavior between genders. Therefore, gender does have a significant impact on impulsive buying behavior.

4.3 REGRESSION ANALYSIS

Descriptive Statistics

	Mean	Std. Deviation	N
impulsive_buying_bh_dpt	28.98	9.977	290
Consumer_engagement_with_ads_indpt	31.26	8.652	290
platform_used_indpt	17.17	4.686	290
interactive_ads_indpt	11.52	4.448	290

Correlations

		impulsive_buying_bh_dpt	Consumer_engagement_with_ads_indpt	platform_used_indpt	interactive_ads_indpt
Pearson Correlation	impulsive_buying_bh_dpt	1.000	.761	.684	.780
	Consumer_engagement_with_ads_indpt	.761	1.000	.537	.663
	platform_used_indpt	.684	.537	1.000	.691
	interactive_ads_indpt	.780	.663	.691	1.000
Sig. (1-tailed)	impulsive_buying_bh_dpt	.	.000	.000	.000
	Consumer_engagement_with_ads_indpt	.000	.	.000	.000
	platform_used_indpt	.000	.000	.	.000
	interactive_ads_indpt	.000	.000	.000	.
N	impulsive_buying_bh_dpt	290	290	290	290
	Consumer_engagement_with_ads_indpt	290	290	290	290
	platform_used_indpt	290	290	290	290
	interactive_ads_indpt	290	290	290	290

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.860 ^a	.739	.736	5.126	.739	269.634	3	286	.000

a. Predictors: (Constant), interactive_ads_indpt, Consumer_engagement_with_ads_indpt, platform_used_indpt

ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	<i>Regression</i>	21177.204	3	7059.068	266.040	.000 ^b
	<i>Residual</i>	7588.672	286	26.534		
	<i>Total</i>	28765.876	289			

- a. Predictors: (Constant), interactive_ads_indpt, Consumer_engagement_with_ads_indpt, platform_used_indpt
b. Predictors: (Constant), interactive_ads_indpt, Consumer_engagement_with_ads_indpt, platform_used_indpt

Coefficients

$IBB(\text{impulsive buying behaviour}) = \beta_0 + \beta_1(\text{consumer engagement with ads}) + \beta_2(\text{platform used}) + \beta_3(\text{interactive ads}) + \epsilon$

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-2.880	1.320		-2.181	.030	-5.478	-.281		
	Consumer_engagement_with_ads_indpt	.466	.047	.404	9.895	.000	.373	.558	.548	1.825
	platform_used_indpt	.462	.090	.217	5.144	.000	.285	.639	.512	1.953
	interactive_ads_indpt	.813	.107	.362	7.611	.000	.603	1.023	.403	2.482

- a. Dependent Variable: impulsive_buying_bh_dpt

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Consumer_engagement_with_ads_indpt	platform_used_indpt	interactive_ads_indpt
1	1	3.879	1.000	.00	.00	.00	.00
	2	.067	7.611	.39	.00	.00	.39
	3	.033	10.915	.01	.69	.45	.00
	4	.022	13.429	.60	.31	.55	.60

- a. Dependent Variable: impulsive_buying_bh_dpt

HYPOTHESIS:

Null Hypothesis (H₀): There is no significant effect of interactive ads, platform used, and consumer engagement on impulsive buying behavior.

Alternative Hypothesis (H₁): There is a significant effect of interactive ads, platform used, and consumer engagement on impulsive buying behavior.

INTERPRETATION:

A multiple linear regression was conducted to assess the influence of consumer engagement with ads, platform usage, and interactive ads on impulsive buying behaviour. The model was significant, $F(3, 286) = 269.63$, $p < .001$, explaining 73.9% of the variance in impulsive buying behaviour ($R^2 = .739$). All predictors had a statistically significant positive impact: consumer engagement ($\beta = .404$), platform used ($\beta = .217$), and interactive ads ($\beta = .362$). The Pearson correlation matrix also showed strong positive relationships between the dependent and independent variables. Multicollinearity was not a concern, as VIF values were within acceptable limits.

RESULT:

The regression model is statistically significant and explains a substantial amount of variance in impulsive buying behavior. All three predictors—interactive ads, platform usage, and consumer engagement—have a significant positive impact on impulsive buying behavior among college students

LIMITATION OF THE STUDY

- The study's sample was limited to college students, its conclusions have limited generalisability.
- The study did not look at the effects of individual digital platforms, it may have missed platform-specific and demographic differences in impulsive purchasing behaviour.

V. FINDINGS

- The study discovered that all three predictor variables—platform used, consumer engagement with ads, and interactive digital advertisements—had significant positive correlations with impulse buying behaviour. Significant at the 0.01 level, the strongest correlation was found between consumer engagement and impulse buying ($\rho = 0.672$), followed by interactive ads ($\rho = 0.635$) and platform used ($\rho = 0.579$).
- The most significant factor was found to be consumer engagement, suggesting that a greater propensity for impulsive purchases is closely linked to higher levels of interaction with digital advertisements.
- Gender appears to be a significant factor in impulsive purchase decisions, as evidenced by the one-way ANOVA that showed a statistically significant difference in impulse buying behaviour between the genders ($F = 81.863$, $p < 0.001$).
- The influence of platform usage, interactive advertisements, and consumer engagement with advertisements on impulsive purchasing behaviour was investigated using a multiple linear regression analysis. With an R^2 value of 0.739 and a significant model ($F(3, 286) = 269.634$, $p < .001$), the independent variables accounted for 73.9% of the variance in impulse buying behaviour. The platform used ($\beta = 0.217$), interactive ads ($\beta = 0.362$), and consumer engagement with ads ($\beta = 0.404$) all demonstrated significant positive effects on impulsive buying behaviour. These results imply that impulsive buying tendencies in consumers are significantly influenced by all three factors.
- Overall, the findings support the notion that college students' impulsive purchasing behaviour is strongly and favourably influenced by interactive digital ads, the platforms on which they are distributed, and consumer interaction with these ads. These elements work together to explain a significant amount of the variation in impulsive purchasing behaviours, underscoring their significance in influencing consumer behaviour in a digital setting.

VI. SUGGESTIONS

- Marketers should focus on creating **highly interactive digital advertisements** to effectively capture attention and trigger impulsive buying behavior.
- Using interactive components including quizzes, polls, swipe-ups, or gamified content to raise consumer involvement will have a major impact on purchase decisions. Higher engagement digital platforms should be given top priority for ad placements since platform use influences impulse purchase.
- Customizing ad content depending on gender preferences can improve ad efficacy since men and women showed rather different impulse buying behavior.
- By routinely examining consumer behavior on several platforms, one can determine which ones encourage more impulsive buying and direct focused marketing initiatives.
- Real-time engagement techniques including interactive countdowns or limited-time offers will help brands to boost urgency and inspire impulsive decisions.
- Educational institutions and students should be made aware of the psychological effects of interactive advertising to promote more informed decision-making.
- Future marketing campaigns can benefit from **data-driven personalization**, using user behavior insights to design engaging and impactful ad experiences.

VII. CONCLUSION

This study offers empirical proof that college students' impulsive purchasing behavior is significantly and favorably influenced by interactive digital ads. The findings show that impulsive buying tendencies are positively connected with consumer engagement with advertisements, the kind of digital platform utilized, and the level of interactivity in the ads. The most significant predictor among these variables was consumer engagement, highlighting the significance of developing engaging and interactive advertising campaigns. Significant gender-based differences in impulsive purchasing behavior were also found in the study, indicating the need for more specialized advertising tactics. The regression analysis verified that a significant amount of the variance in impulsive purchasing behavior can be explained by the combined influence of engagement, platform usage, and interactivity.

These findings highlight the critical role of interactive elements in digital advertising and suggest that marketers can enhance consumer responsiveness and purchase likelihood by focusing on personalized, engaging, and platform-optimized content. As digital media continues to evolve, understanding these behavioral dynamics becomes increasingly essential for crafting effective marketing strategies aimed at younger consumer segments.

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