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Impact of Sales Promotion Techniques on Customer Responses in E-Commerce Platforms

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ABSTRACT

Electronic commerce (e-commerce) has significantly transformed the global retail landscape by enabling businesses and consumers to conduct transactions through digital platforms. This study examines the impact of sales promotion techniques specifically price discounts, coupons, cashback offers, flash sales, and free delivery on customer responses in e-commerce platforms. Using a quantitative research design, primary data were collected from 96 online shoppers via a structured questionnaire. Structural Equation Modelling (PLS-SEM) was applied using SmartPLS 4. Results indicate strong positive relationships between sales promotion techniques and three key customer response variables: purchase decision ($\beta = 0.884$), customer satisfaction ($\beta = 0.898$), and repeat purchase intention ($\beta = 0.902$). All R^2 values exceeded 0.78, confirming substantial explanatory power. Reliability and validity of all constructs were confirmed through Cronbach's Alpha, Composite Reliability, and Average Variance Extracted. Findings suggest that well-designed promotional strategies are critical tools for customer engagement and long-term loyalty on e-commerce platforms.

Keywords: E-commerce, Sales Promotion, Customer Satisfaction, Purchase Decision, Repeat Purchase Intention, PLS-SEM

1. INTRODUCTION

The rapid expansion of digital technology and internet accessibility has fundamentally transformed the retail landscape. E-commerce platforms such as Amazon, Flipkart, and Myntra have revolutionized consumer shopping by offering convenience, variety, and competitive pricing. In this highly competitive environment, online retailers widely deploy sales promotion techniques price discounts, coupon codes, cashback offers, flash sales, and free delivery as short-term marketing strategies designed to stimulate immediate purchasing behaviour.

Despite the widespread use of sales promotions in online retailing, organizations often implement these strategies without a comprehensive understanding of their multidimensional impact on customer behaviour. Existing research has frequently examined purchase intention in isolation, without simultaneously exploring customer satisfaction and repeat purchase intention. This study addresses that gap by investigating the combined effect of sales promotion techniques on multiple customer response variables within the Indian e-commerce context.

The primary objective of this study is to examine the influence of sales promotion techniques on customer purchase decisions, satisfaction levels, and repeat purchase intention using Partial Least Squares Structural Equation Modelling (PLS-SEM). The study contributes to both marketing theory and managerial practice by providing empirical evidence of the effectiveness of promotional strategies in shaping consumer behaviour on digital platforms.

2. LITERATURE REVIEW

2.1 Sales Promotion in E-Commerce

Sales promotion refers to short-term marketing activities designed to stimulate immediate purchasing behaviour (Kotler & Keller, 2016). In the e-commerce context, these strategies extend beyond price reductions to encompass coupon codes, cashback schemes, flash sale events, and free delivery services. Chen and Yao (2020) demonstrated that price-based promotional strategies significantly influence purchase decisions and encourage higher purchase frequency. Gupta and Sharma (2021) established that digital promotional strategies have a significant positive effect on online consumer decision-making. Verma and Singh (2021) found that flash sales create consumer urgency and increase platform traffic. Kumar and Patel (2021) highlighted that coupon-based promotions attract price-sensitive consumers.

2.2 Customer Responses to Promotional Offers

Customer responses can be conceptualized across three dimensions: cognitive (purchase decision), affective (satisfaction), and behavioural (repeat purchase intention). Kaur and Kaur (2022) found that discounts, cashback, and free delivery significantly increase customer satisfaction. Kim and Park (2023) showed that satisfied customers are more likely to recommend platforms to others. Brown and Davis (2023) linked frequent promotional activities to improved customer retention rates. Kumar and Roy (2024) demonstrated that promotional strategies improve overall satisfaction and loyalty.

2.3 Theoretical Framework

This study is grounded in four complementary theories. The Hierarchy of Effects Model provides the foundation, suggesting that promotions create awareness and interest that lead sequentially to purchase actions. The Theory of Planned Behaviour (Ajzen, 1991) posits that promotional incentives positively influence customer attitudes and intentions. Expectancy-Disconfirmation Theory (Oliver, 1980) explains satisfaction as a function of

whether promotional offers meet or exceed expectations. The Customer Loyalty Model supports the proposition that satisfied customers develop repeat purchase behaviour.

3. CONCEPTUAL MODEL

Figure 1 illustrates the proposed research model. Sales Promotion Techniques (SPT) serve as the independent variable, with three dependent constructs: Purchase Decision (PD), Customer Satisfaction (CS), and Repeat Purchase Intention (RPI). Three sub-hypotheses (H1a, H1b, H1c) test the structural paths from SPT to each outcome variable, under the overarching main hypothesis H1.

Figure : Proposed Model

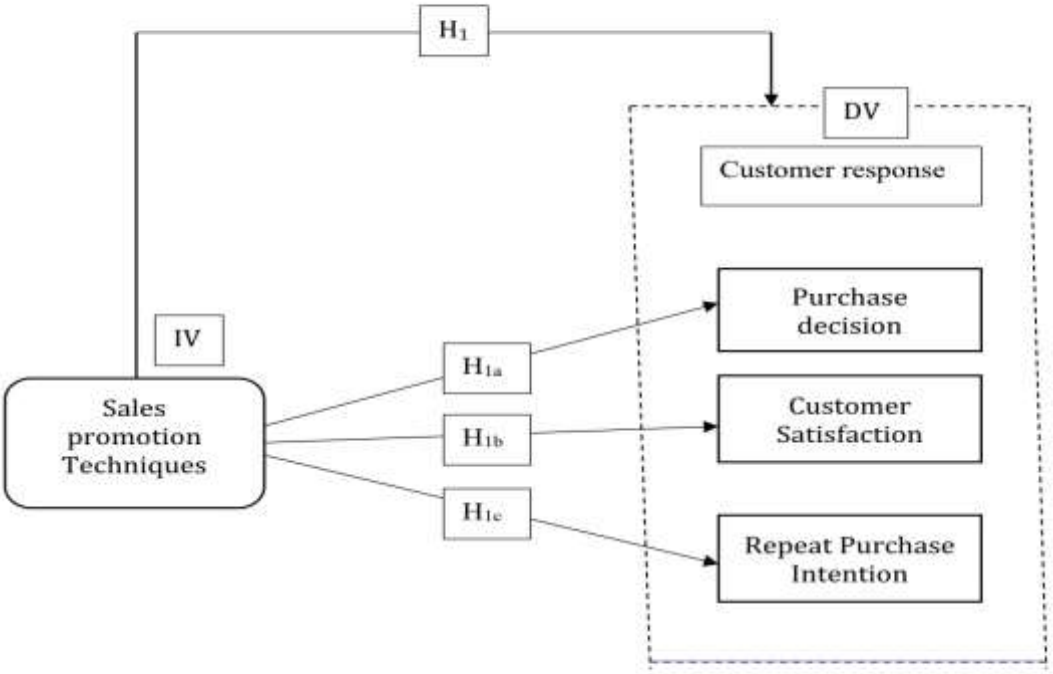

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Figure 1: Proposed Conceptual Model (Source: Author)

4. RESEARCH METHODOLOGY

4.1 Research Design and Approach

This study adopts a descriptive and analytical quantitative research design with a deductive approach. The study is cross-sectional, conducted among online shoppers with prior experience using e-commerce platforms in India, specifically Amazon, Flipkart, and Myntra.

4.2 Sample and Data Collection

Primary data were collected via a self-administered structured questionnaire distributed through Google Forms. Convenience sampling yielded a final sample of N = 96 respondents. The questionnaire comprised four sections covering demographic information and Likert-scale measurement items (1 = Strongly Disagree to 5 = Strongly Agree) for all four constructs. Secondary data were gathered from academic journals, textbooks, and industry reports.

4.3 Hypotheses

H1a: Sales promotion techniques significantly influence customer purchase decisions.

H1b: Sales promotion techniques significantly influence customer satisfaction.

H1c: Sales promotion techniques significantly influence repeat purchase intention.

4.4 Analytical Method

PLS-SEM was conducted using SmartPLS 4. The analysis proceeded in two stages: (1) measurement model assessment examining indicator reliability, Cronbach's Alpha, Composite Reliability, and AVE; and (2) structural model evaluation via path analysis and bootstrapping (5,000 resamples) at the 5% significance level.

5. SAMPLE PROFILE

The sample was predominantly male (76.04%), with the largest age cohort between 21–25 years (44.79%). Most respondents rarely (41.67%) or occasionally (28.13%) shop online. Amazon (37.50%) and Flipkart (36.46%) were the most preferred platforms. Electronics (38.54%) and clothing (29.17%) were the most purchased categories. Price offers were the primary motivation for online shopping (46.88%), and discounts were the most attractive promotional tool (36.46%).

Variable	Category	Frequency	Percentage (%)
Gender	Male	73	76.04
	Female	11	11.46
	Prefer not to say	12	12.50
Age Group	Below 20	38	39.58
	21–25 years	43	44.79
	26–30 years	11	11.46
	Above 30 years	4	4.17
Preferred Platform	Amazon	36	37.50
	Flipkart	35	36.46
Most Attractive Promotion	Discounts	35	36.46
	Cashback	19	19.79
	Free Delivery / Coupon Codes	16 each	16.67 each
	Flash Sales	10	10.42

Table 1: Sample Profile Summary

6. RESULTS

6.1 Measurement Model Assessment

Internal consistency reliability was assessed using Cronbach's Alpha and Composite Reliability (CR). Table 2 shows that all constructs exceeded the recommended threshold of 0.70. Convergent validity assessed through Average Variance Extracted (AVE) confirmed all constructs exceeded the 0.50 threshold, indicating that each construct explains the majority of variance in its indicators.

Construct	Cronbach's Alpha	Composite Reliability	AVE
Sales Promotion Techniques (SPT)	0.926	0.944	0.772
Purchase Decision (PD)	0.944	0.957	0.815
Customer Satisfaction (CS)	0.938	0.953	0.803
Repeat Purchase Intention (RPI)	0.942	0.956	0.812

Table 2: Reliability and Convergent Validity

Outer loadings for all indicators exceeded 0.80 across all constructs (SPT: 0.870–0.938; PD: 0.894–0.945; CS: 0.875–0.941; RPI: 0.877–0.948), confirming strong indicator reliability.

6.2 SmartPLS SEM Output

The PLS-SEM path model estimated using SmartPLS 4 is displayed in Figure 2. The model shows the Sales Promotion Techniques (SPT) construct at the centre, with five reflective indicators (SPT1–SPT5) and three structural paths leading to Purchase Decision (PD), Customer Satisfaction (CS), and Repeat Purchase Intention (RPI). R^2 values are shown inside each endogenous construct circle (PD = 0.781, CS = 0.806, RPI = 0.813). Path coefficients are labelled on each structural arrow, and outer loadings are annotated on indicator arrows.

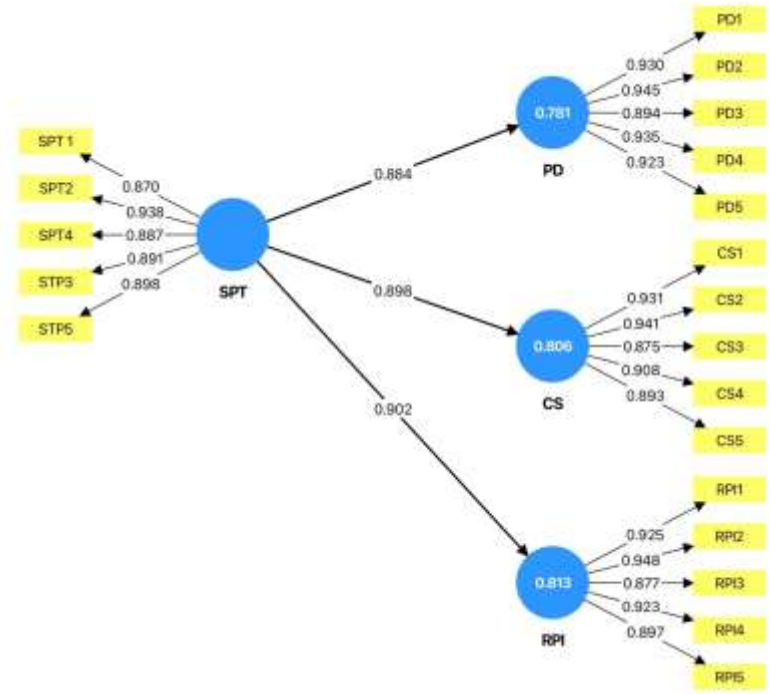

Figure 2: SmartPLS PLS-SEM Path Model Output (Source: SmartPLS 4)

6.3 Model Fit Assessment

Fit Index	Saturated Model	Estimated Model	Threshold	Interpretation
SRMR	0.067	0.071	< 0.08	Good Fit
NFI	0.913	0.908	> 0.90	Good Fit
d_ULS	1.845	1.972	Lower = Better	Acceptable
d_G	0.894	0.921	Lower = Better	Acceptable
Chi-Square	512.43	528.76	Lower Preferred	Acceptable

Table 3: Model Fit Indices

6.4 Structural Model and Hypothesis Testing

Path analysis results obtained via bootstrapping (5,000 resamples) are presented in Table 4. All three path coefficients are large, statistically significant ($p < 0.001$), with T-values well above the 1.96 threshold, supporting all three hypotheses.

Hypothesis	Path	β	T-Value	P-Value	Result
H1a	SPT → Purchase Decision	0.884	18.74	0.000	Supported ✓
H1b	SPT → Customer Satisfaction	0.898	20.12	0.000	Supported ✓
H1c	SPT → Repeat Purchase Intention	0.902	21.05	0.000	Supported ✓

Table 4: Path Coefficients and Hypothesis Testing (Bootstrapping, n=5,000)

Dependent Construct	R^2	Adjusted R^2	Interpretation
Purchase Decision (PD)	0.781	0.779	Substantial
Customer Satisfaction (CS)	0.806	0.804	Substantial
Repeat Purchase Intention (RPI)	0.814	0.812	Substantial

Table 5: R-Square Values

7. DISCUSSION

The results provide strong empirical support for the central proposition that sales promotion techniques exert a significant positive influence on customer responses. All three hypotheses were supported, consistent with the Hierarchy of Effects Model and the Theory of Planned Behaviour. The highest path coefficient was observed for Repeat Purchase Intention (β = 0.902), followed by Customer Satisfaction (β = 0.898) and Purchase Decision (β = 0.884), suggesting that promotions cultivate longer-term loyalty beyond immediate purchase triggers.

The descriptive analysis revealed that discounts (36.46%) are the most attractive promotional tool, followed by cashback (19.79%) and free delivery (16.67%). These price-related stimuli function as powerful extrinsic motivators consistent with economic utility theory. Barriers to promotional engagement were also identified: hidden terms and conditions (32.3%) and minimum purchase requirements (29.2%) were the most commonly cited deterrents, indicating that promotional transparency is critical to effectiveness.

The SmartPLS path model (Figure 2) visually confirms the direct structural relationships between SPT and the three response constructs, with all outer loadings exceeding 0.87, demonstrating a well-specified reflective

measurement model. The substantial R^2 values (0.781–0.814) indicate that sales promotion techniques are dominant predictors of customer behaviour in digital retail environments.

8. CONCLUSION

This study confirms that sales promotion techniques exert a strong, statistically significant, and positive effect on customer purchase decisions, satisfaction, and repeat purchase intention in e-commerce platforms. PLS-SEM analysis using SmartPLS 4 demonstrated that promotions explain over 78% of variance across all customer response constructs, underscoring their strategic importance in digital retail.

For e-commerce managers, the findings advocate for transparent, personalized, and multi-channel promotional campaigns combining price incentives with superior service quality. Platforms should focus on fast delivery and easy return policies, identified as the most influential non-price factors enhancing promotional attractiveness. Future research should employ longitudinal designs and examine the moderating role of consumer innovativeness and platform trust on promotional effectiveness.

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APPENDIX: MEASUREMENT INSTRUMENT

Section C: Sales Promotion Techniques (SPT)

Rated on a 5-point Likert scale (1 = Strongly Disagree – 5 = Strongly Agree)

Item	Statement
C1	Discounts offered on e-commerce platforms attract me to shop online.
C2	Cashback offers motivate me to purchase products online.
C3	Coupon codes influence my buying decision.
C4	Flash sales encourage me to make quick purchase decisions.
C5	Free delivery increases my willingness to shop online.

Section D: Purchase Decision (PD)

Item	Statement
D1	Sales promotions influence my final purchase decision.
D2	I prefer to purchase products when promotional offers are available.
D3	Sales promotions encourage me to try new products online.
D4	Discounts and special offers increase my likelihood of purchasing a product.
D5	Limited-time promotional deals create urgency in my buying decision.

Section E: Customer Satisfaction (CS)

Item	Statement
E1	I am satisfied with the sales promotions offered by e-commerce platforms.
E2	Sales promotions enhance my overall online shopping experience.
E3	Promotional offers meet my expectations while shopping online.
E4	I feel that sales promotions provide good value for money.
E5	I am likely to shop again from platforms that offer attractive promotions.

Section F: Repeat Purchase Intention (RPI)

Item	Statement
F1	I am likely to repurchase from e-commerce platforms offering attractive promotions.
F2	Sales promotions encourage me to remain loyal to an e-commerce platform.
F3	I would recommend an e-commerce platform to others if it provides good promotional offers.
F4	I prefer e-commerce platforms that frequently offer discounts and deals.
F5	Attractive promotional schemes increase my trust in the platform.