



The Impact of Marketing Strategies on Consumer Purchase Behaviour in the Automobile Industry

Nandan Pari¹, Rachana D²

¹Post Graduate Student, Department of Management Studies,
Dayananda Sagar Academy of Technology and Management,
Bangalore, Karnataka, India

²Assistant Professor, Department of Management Studies,
Dayananda Sagar Academy of Technology and Management,
Bangalore, Karnataka, India

Abstract – The automobile industry has become highly competitive with increasing use of digital marketing and customer relationship management strategies. This study examines which marketing approaches work best for automobile dealerships, specifically focusing on selected automobile dealerships in Karnataka. A survey was conducted among 60 respondents using a 30-item questionnaire covering three areas: traditional marketing impact, digital marketing effectiveness, and CRM performance. Results show that customers generally agree all three strategies work (scores above 4 out of 5). However, regression analysis revealed that CRM effectiveness is the strongest predictor of purchase intention ($\beta = 1.038$, $p < 0.001$). Age significantly affects digital marketing influence, with younger customers (18-35 years) scoring 4.80 compared to seniors scoring 2.10. Females value CRM more than males (4.58 vs 4.07). The study recommends focusing on CRM improvements, age-based marketing segmentation, and reducing celebrity endorsements which scored lowest (3.40).

Keywords – Automobile marketing, Customer Relationship Management, Digital marketing, Purchase decision, Customer satisfaction.

I. INTRODUCTION

The automobile sector in India has witnessed remarkable transformation over the past decade. With multiple brands competing for customer attention, dealerships are constantly searching for effective marketing strategies. Traditional methods like television advertisements, print media, and showroom promotions now coexist with digital approaches including social media campaigns, online reviews, and targeted ads.

selected automobile dealerships, located in Karnataka, represents a typical automobile dealership facing these competitive pressures. The dealership has adopted various marketing approaches but lacks clear understanding about which strategies actually influence customer purchase decisions. This gap between marketing investment and measurable outcomes creates the need for systematic investigation.

The problem is particularly relevant because automobile purchases involve high involvement decision making. Customers typically research extensively before making a final choice. Understanding what drives their decisions can help dealerships allocate marketing budgets more efficiently.

Previous research suggests that marketing strategies significantly impact consumer behavior in automobile sector. However, most studies focus on metropolitan areas or examine national level trends. Regional dealerships like selected automobile dealerships face unique challenges including local competition, specific demographic profiles, and limited marketing budgets. This study addresses this

gap by examining three specific areas: the overall impact of marketing strategies on purchase decisions, the role of digital marketing and social media, and the effectiveness of CRM in building satisfaction and loyalty.

II. METHODOLOGY

Research Design

A descriptive research design was adopted for this study. This approach allowed systematic collection of information about customer perceptions regarding marketing strategies of selected automobile dealerships.

Sampling

The study used convenience sampling method. A total of 60 respondents participated in the survey. The sample included both existing customers of selected automobile dealerships and potential customers who had visited the dealership or were aware of its services.

Data Collection Instrument

A structured questionnaire was developed containing 30 Likert-scale questions. Each question used a 5-point scale where 1 meant Strongly Disagree and 5 meant Strongly Agree. The questionnaire was divided into three sections corresponding to the research objectives:

- **Section A:** Impact of marketing strategies on purchase decisions (10 questions)
- **Section B:** Role of digital marketing and social media (10 questions)
- **Section C:** Effectiveness of CRM in customer satisfaction and loyalty (10 questions)



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Demographic information including age, gender, occupation, income, purchase status, and social media usage frequency was also collected.

Data Analysis

Data was analyzed using SPSS version 20. The following statistical tests were performed:

Test	Purpose
Descriptive statistics	Understanding mean scores and distributions
Independent t-test	Comparing groups (purchased vs non-purchased, male vs female)
One-way ANOVA	Comparing multiple groups (age, income)
Pearson correlation	Identifying predictors of purchase intention
Chi-square test	Examining association between categorical variables
Cronbach's Alpha	Testing reliability of questionnaire

III. RESULTS AND DISCUSSION

Demographic Profile of Respondents

Table 1 shows the demographic characteristics of the 60 respondents.

Table 1: Demographic Profile of Respondents

Characteristic	Category	Frequency	Percentage
Age	18-25 years	12	20.0%
	26-35 years	19	31.7%
	36-45 years	13	21.7%
	46-55 years	10	16.7%
	Above 55 years	6	10.0%
Gender	Male	34	56.7%
	Female	26	43.3%
Occupation	Business	10	16.7%
Characteristic	Category	Frequency	Percentage
	Private Job	20	33.3%
	Self-employed	12	20.0%
	Student	12	20.0%
	Retired	6	10.0%
Income	Less than ₹20,000	18	30.0%
	₹40,000-60,000	16	26.7%
	₹60,000-80,000	15	25.0%
	₹80,000+	11	18.3%
Purchased from Arya Motors	Yes	41	68.3%
	No	19	31.7%
Social Media Usage	Daily	35	58.3%
	Weekly	10	16.7%

	Occasionally	9	15.0%
	Rarely	6	10.0%

The data shows that most customers are in the 26-35 age bracket (31.7%). Private job employees form the largest occupational group at 33.3%. More than two-thirds of respondents (68.3%) have purchased from selected automobile dealerships, indicating the sample includes mostly actual customers. Daily social media usage is reported by 58.3% of respondents, suggesting good potential reach for digital marketing.

Descriptive Statistics of Marketing Variables

Table 2 presents the mean scores for the three composite variables.

Table 2: Composite Scores of Marketing Variables

Variable	Mean	Std. Deviation	Interpretation
Marketing_Impact	4.36	0.40	Agree
Digital_Marketing	4.01	0.94	Agree
CRM_Effectiveness	4.30	0.92	Agree

Customers rated all three marketing areas above 4 out of 5, indicating general agreement that selected automobile dealerships' marketing strategies are effective. Digital marketing scored slightly lower than traditional marketing but still falls in the Agree range.

Table 3: Highest and Lowest Rated Individual Questions

Rank	Question	Mean
Highest Rated		
1	Q4: Marketing campaigns create awareness of new models	4.88
2	Q5: Test drives influence purchase decision	4.68
3	Q7: Financing schemes affect purchase decision	4.50
4	Q30: Intention to continue purchasing	4.50
5	Q28: Satisfaction with relationship	4.40
Lowest Rated		
1	Q6: Celebrity endorsements increase interest	3.40
2	Q16: Social media promotions encourage visit	3.60
3	Q11: Seeing Arya Motors ads on digital platforms	3.60
4	Q13: Online reviews influence perception	3.70

Customers strongly appreciate awareness campaigns, test drive opportunities, and financing options. However, celebrity endorsements received the lowest score,



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suggesting this marketing expense may not be justified for selected automobile dealerships. Digital ad visibility also needs improvement.

Hypothesis Testing Results

Hypothesis 1: Marketing strategies influence purchase decisions

Simple regression analysis was conducted with Marketing_Impact as predictor and Q30 (purchase intention) as dependent variable.

Table 4: Simple Regression Results

Model R Square F Sig.

0.526 64.335 0.000

Predictor B Beta t Sig.

(Constant) -2.074 -2.520 0.015

Marketing_Impact 1.508 0.725 8.021 0.000

Marketing strategies explain 52.6% of the variation in purchase intention. The p-value (0.000) indicates this relationship is statistically significant. Therefore, Hypothesis 1 is accepted.

Hypothesis 2: Digital marketing positively influences customers

Pearson correlation between Digital_Marketing and Q30 showed $r = -0.455$ ($p < 0.001$).

This negative correlation was surprising.

Table 5: Digital Marketing Scores by Purchase Status

Group	Mean Digital Marketing Score
Purchased from Arya Motors	3.71

Group	Mean Digital Marketing Score
Not Purchased	4.66

Further investigation revealed that customers who actually purchased from selected automobile dealerships rated digital marketing lower than non-customers. This suggests existing customers may have discovered the dealership through other channels like referrals or showroom visits. Digital marketing appears more effective for attracting potential customers rather than influencing existing ones.

Hypothesis 2 is partially accepted.

Hypothesis 3: CRM improves customer satisfaction and loyalty

Independent t-test compared customers who purchased from selected automobile dealerships versus those who did not.

Table 6: CRM Effectiveness Comparison

Variable	Purchased (n=41)	Not Purchased (n=19)	Mean Difference	p-value

CRM_Effectiveness	4.81	3.18	1.63	0.000
Q28 (Satisfaction)	4.95	3.21	1.74	0.000
Q29 (Recommendation)	4.95	3.21	1.74	0.000
Q30 (Future Purchase)	5.00	3.42	1.58	0.000

Customers who purchased from selected automobile dealerships rated CRM effectiveness much higher than non-customers. All differences were statistically significant with $p < 0.001$. Hypothesis 3 is accepted.

Hypothesis 4: Age affects digital marketing influence

One-way ANOVA was conducted with Digital_Marketing as dependent variable and Age as factor.

Table 7: Digital Marketing Scores by Age Group

Age Group	N	Mean Digital Marketing Score
18-25 years	12	4.80
26-35 years	19	4.55
36-45 years	13	4.05
46-55 years	10	3.12
Above 55 years	6	2.10

ANOVA results: $F = 62.016$, $p < 0.001$

Younger customers (18-35 years) showed high influence from digital marketing while customers above 55 years showed very low influence. Post hoc tests confirmed significant differences between age groups. Hypothesis 4 is accepted.

Table 8: Post Hoc Comparison Results

Comparison Mean Difference p-value

18-25 vs Above 55 2.70 0.000

26-35 vs Above 55 2.45 0.000

36-45 vs Above 55 1.95 0.000

46-55 vs Above 55 1.02 0.000

Hypothesis 5: Social media usage relates to purchase

Chi-square test examined association between social media usage and purchase status.

Table 9: Social Media Usage and Purchase Status

Social Media Usage	Purchased (Yes)	Purchased (No)	% Purchased
Daily	18	17	51.4%



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Weekly	9	1	90.0%
Occasionally	8	1	88.9%
Rarely	6	0	100.0%

Chi-square value = 11.330, df = 3, p = 0.010

Weekly and occasional social media users showed higher purchase rates compared to daily users. Hypothesis 5 is accepted.

Hypothesis 6: Gender differences in marketing perception Independent t-test compared male and female respondents.

Table 10: Gender Comparison

Variable	Male (n=34)	Female (n=26)	p-value
Marketing_Impact	4.27	4.47	0.055
Digital_Marketing	4.14	3.85	0.242
CRM_Effectiveness	4.07	4.58	0.033

Females rated CRM effectiveness significantly higher than males (p = 0.033). No significant gender differences were found for overall marketing impact or digital marketing. Hypothesis 6 is rejected for marketing and digital but partially accepted for CRM.

Hypothesis 7: Income affects CRM perception

One-way ANOVA examined CRM_Effectiveness across income groups.

Table 11: CRM Scores by Income Level

Income Level	N	Mean Score	CRM
Less than ₹20,000	18	3.41	
₹40,000-60,000	16	4.56	
₹60,000-80,000	15	4.91	
₹80,000+	11	4.53	
ANOVA results: F = 13.745, p < 0.001			

ANOVA results: F = 13.745, p < 0.001 114.53

Low-income customers rated CRM significantly lower than middle and high-income groups. The null hypothesis of no difference is rejected.

Multiple Regression Analysis

To identify the strongest predictor of purchase intention, multiple regression was performed with all three marketing variables.

Table 12: Multiple Regression Model Summary

R	R Square	Adjusted Square	Std. Error of Estimate
0.930	0.866	0.858	0.314

Table 13: ANOVA Results

	Sum of	df	Mean	F	Sig.
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	Squares		Square		
Regression	35.487	3	11.829	120.162	0.000
Residual	5.513	56	0.098		
Total	41.000	59			
Table 14: Coefficients					
Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	1.021	0.580		1.761	0.084
Marketing_Impact	-0.184	0.176	-0.088	-1.044	0.301
Digital_Marketing	0.064	0.052	0.073	1.227	0.225
CRM_Effectiveness	0.936	0.085	1.038	10.985	0.000

Only CRM_Effectiveness emerged as a significant predictor of purchase intention when all three variables were considered together. Marketing_Impact and Digital_Marketing became insignificant due to multicollinearity (correlation between CRM and Marketing_Impact was r = 0.807).

Reliability Analysis

Table 15: Cronbach's Alpha Values

Scale	Cronbach's Alpha	Number of Items	Interpretation
Marketing_Impact	0.832	10	Good
Digital_Marketing	0.988	10	Excellent
CRM	0.992	10	Excellent

All three scales demonstrated good to excellent reliability, confirming the questionnaire consistently measured the intended constructs.

IV. CONCLUSION

This study examined the effectiveness of marketing strategies at selected automobile dealerships, Karnataka. Based on analysis of 60 respondent surveys, following conclusions are drawn:

1. Customers generally agree that marketing strategies influence their purchase decisions, with composite scores above 4.0 for all three areas studied.
2. CRM effectiveness emerged as the strongest predictor of purchase intention. Customers who purchased from selected automobile dealerships rated CRM much higher than non-customers across satisfaction, recommendation, and future purchase intentions.
3. Age significantly affects digital marketing influence. Younger customers (18-35 years) are strongly influenced while seniors (above 55 years) show minimal response to digital marketing.
4. Celebrity endorsements received the lowest rating among all questions, suggesting this marketing expense may not be effective for this dealership.



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5. Females value CRM more than males, indicating need for personalized relationship management for female customers.
6. Low-income customers rate CRM poorly compared to higher income groups, suggesting service improvements needed for budget-conscious buyers.

Recommendations for selected automobile dealerships

Based on the findings, following recommendations are made:

1. **Invest in CRM systems and training** - Since CRM is the strongest predictor of purchase intention, selected automobile dealerships should prioritize customer relationship management. This includes prompt response to inquiries, follow-up communication, and effective complaint handling.
2. **Segment digital marketing by age** - Use social media platforms like Instagram and YouTube for customers under 35 years. Use traditional media like newspaper ads and showroom promotions for customers above 55 years.
3. **Reduce celebrity endorsement spending** - The low score (3.40) indicates this does not resonate with customers. Budget can be reallocated to CRM or targeted digital ads.
4. **Improve digital ad visibility** - Q11 scored only 3.60, indicating customers do not frequently see selected automobile dealerships digital advertisements. Increasing digital presence across platforms is recommended.
5. **Target weekly social media users** - This group showed 90% purchase rate, higher than daily users. Marketing efforts can be directed toward this segment.
6. **Enhance CRM for low-income customers** - With mean score of 3.41 compared to 4.91 for higher income groups, specific attention is needed for budget-conscious buyers.

Limitations of the Study

This study has certain limitations. Sample size of 60 respondents is relatively small. The study was conducted only at one dealership location in Karnataka. Convenience sampling method may introduce selection bias. The study focused on three marketing areas and did not examine other factors like pricing, product quality, or location convenience.

Scope for Future Research

Future studies can expand sample size across multiple dealerships in different cities. Longitudinal studies can examine how marketing effectiveness changes over time. Comparative studies between different automobile brands can identify industry best practices.

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