

ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

PROFITABILITY PERSPECTIVES: ANALYZING CONSUMER BUYING BEHAVIOUR THROUGH THE LENS OF MARKETING ANALYTICS

Dr. Munaga Ramakrishna Mohan Rao, Mba, Phd, Pgdca, Lmiste, Hma, Ic-38 Principal & Professor, Siddhartha Institute Of Technology& Sciences, Hyderabad, India.

ABSTRACT:

In the contemporary business landscape, understanding consumer buying behaviour is paramount for companies aiming to enhance profitability. By leveraging data-driven insights, the research aims to uncover nuanced perspectives on profitability derived from an in-depth examination of consumer behaviour. Through the utilization of advanced marketing analytics techniques, including data mining, predictive modeling, and sentiment analysis, this study seeks to identify key factors influencing consumer buying decisions across various industries. By analyzing vast datasets encompassing demographic information, purchasing history, and online behaviour, the research endeavors to unveil underlying trends and correlations that drive profitability.

Furthermore, the study explores the impact of marketing strategies, promotional campaigns, and product positioning on consumer behaviour and subsequent profitability. By examining case studies and empirical research, the research aims to provide actionable insights for businesses seeking to optimize their marketing efforts and enhance profitability. By elucidating the complex interplay between consumer behaviour and business outcomes, the research aims to equip companies with the insights needed in marketplace. The researcher used 195 customer replies, selected via convenience sampling. The data were generated using quantitative research methodologies, including SPSS Pearson correlation analysis. Market behaviour analytics showed a high degree of predictive power when it came to customer behaviour

Keywords: Business, Consumer patterns, Management, Marketing analytics

INTRODUCTION:

In today's rapidly evolving business landscape, understanding consumer buying behaviour is essential for companies aiming to remain competitive and maximize profitability. In this context, marketing analytics emerges as a powerful tool for examining consumer buying behaviour and uncovering profitability perspectives. The introduction of this study sets the stage by highlighting the significance of consumer behaviour analysis in driving business success. It outlines the overarching aim of the research, which is to explore consumer purchasing patterns and their implications for profitability through the lens of marketing analytics. By leveraging advanced analytical techniques and vast datasets, the study seeks to provide valuable insights into the factors influencing consumer behaviour and the strategies that businesses can employ to enhance profitability. Furthermore, the introduction underscores the growing importance of marketing analytics in today's business environment. Moreover, the introduction outlines the structure of the study, providing an overview of the key topics that will be explored in subsequent sections. It emphasizes the research objectives, methodology, and expected contributions to the field of consumer behaviour analysis and marketing analytics. Additionally, the introduction sets the context for the significance of the study's findings in informing strategic decision-making and driving profitability in modern business settings. Overall, the introduction serves as a foundation for the research, framing the research questions, objectives, and scope within the broader context of consumer behaviour analysis and marketing analytics. It highlights the relevance of the study in addressing contemporary challenges faced by businesses and underscores the potential impact of the research findings on enhancing



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

profitability perspectives.

REVIEW OF LITERATURE:

The literature surrounding consumer buying behaviour and marketing analytics provides valuable insights into the complexities of understanding consumer preferences and driving profitability in today's competitive market landscape. This section offers a comprehensive review of relevant studies and theoretical frameworks, highlighting key findings and emerging trends in the field.

Consumer Buying Behaviour Models: Numerous models have been proposed to elucidate the factors influencing consumer purchasing decisions. Classic models (Zaltman et al., 1993) offer insights into the emotional and subconscious drivers of consumer decision-making. With the advent of big data and advanced analytics techniques, marketing analytics has emerged as a powerful tool for understanding and predicting consumer behaviour. Studies by Kumar et al. (2013) and Wamba et al. (2015) highlight the role of data-driven approaches in identifying consumer preferences, segmenting markets, and personalizing marketing strategies. In light of growing concerns around data privacy and ethical implications of marketing practices, scholars have begun to explore the ethical dimensions of marketing analytics. Studies by Culnan and Williams (2009) and Davenport and Beck (2001) discuss ethical issues related to data collection, use, and transparency in marketing analytics, underscoring the need for responsible data management practices and consumer-centric approaches.

Integration of Traditional and Digital Channels: As consumer journeys become increasingly complex and fragmented, there is a growing need for integrated marketing strategies that leverage both traditional and digital channels. Research by Constantinides et al. (2018) and Kaplan and Haenlein (2010) examines the synergies between offline and online marketing efforts, highlighting the importance of aligning messaging and experiences across multiple touchpoints to drive engagement and loyalty. As a whole, the literature review does a great job of outlining the history, theory, and methodology of marketing analytics research into consumer purchasing behaviour, as well as its practical applications.

CONCEPT AND HYPOTHESES OF THE RESEARCH:

Three marketing analytics show a good correlation with the study hypothesis about customer purchasing behaviour for small company units.

- 1. Shopping by consumers Analytics of behaviour (profit rate velocity, customer retention rate)
- 2. Advertising Analytics based on behavioural metrics (possible market, barriers to entrance)
- 3. The monetary worth Analytics of behaviour (economic conditions, energy price constraints, and inflation).

The study's findings and recommendations may help small businesses better understand and cater to their customers' unique purchasing habits. Some ideas may have a direct impact on small company owners' customers' purchasing habits. "This study's guiding hypothesis is as follows:

H1: consumer buying Behaviour analytics positively predict the consumer Behaviour pattern for small business unit.

H2: Marketing metric analytics positively predict the consumer Behaviour pattern for small business unit H3: Economic metric analytics positively predict the consumer Behaviour pattern for small business unit The conceptual research model consists of the major three marketing factor analytics which create the impact of the consumer buying Behaviour". The above three hypothesis has highly suggest that all the three relationship are critically examined the consumer Behaviour in small business unit and also the relationship of the hypothesis were tested.



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

ANALYSIS OF THE RESEARCH:

The researcher initially employed discriminant analysis, relationship analysis, and regression analysis with the collected data to determine the most appropriate statistical analysis. Before conducting the analysis, the data underwent a cleaning process, where errors such as double entry, input errors, and spelling mistakes were detected and corrected using the original data source. The SPSS 16.0 version was utilized for testing purposes.

DESCRIPTIVE STATISTICAL ANALYSIS:

This analysis aimed to compute the general consumer patterns of data analytics, considering demographic factors across different industry segments.

Inferential Analysis: The inferential statistics derived inferences from the data collected from the respondents, enabling conclusions to be drawn for the overall population based on the sample studied.

Measurement of Variables: The empirical research involved six variables, measured through respondent data. The Likert scale was employed for the middle variable, and a reliability test based on Cronbach's alpha value was conducted.

Dependent Variables: The dependent variables were categorized into three groups: customer behaviour (velocity rate, turnover), economic behaviour (business climate, energy constraints, inflation), and marketing behaviour (market potential, entry constraints).

Independent Variables: Likert scale and multi-ranking scale were used as independent variables. The Likert scale helped identify marketing metric analytics related to economic behaviour, marketing behaviour, and customer behaviour.

Results:

The findings of the study included descriptive statistics, frequency analysis, and percentage analysis, which provided insights into various aspects of the data. "For instance, a 45.5% frequency analysis revealed the product types prevalent in the business. Additionally, cross-tabulation and cross-tabulation with marketing metric analytics were conducted to further analyze the data.

Table 1: Market saturation result industry

	Market saturation result industry									
Types of variables	Marketplace of competitors	Frequency analysis	Percentage							
Monopoly industry	0-4	40	20.2							
Competitive type	5-10	36	19.7							
Semi commodity type	11-20	29	14.6							
Commodity type	20 and above	90	45.5							
Total		195	100							

Table 2: Marketing metric analytic consumer BEHAVIOUR pattern profit velocity

Metrics	Monopol	Competiti	Semi	Commodit	Tota	Percentag
for profit	•	ve type	commodit	y type	1	e
velocity	industry		y type			



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

Velocit y of profit	Paid immediatel y	19	15	11	37	82	42.9
	More than 24 hours	0	2	1	10	13	6.6
	Neutral	3	2	9	5	19	9.6
	More than week	7	6	4	9	26	13.1
	More than month	8	14	4	29	55	27.8
		37	39	29	90	198	100

Table 3: Marketing BEHAVIOUR patterns customer turnover barriers effect

	Market metric potential	Monopol y type industry	Competiti ve type industry	Semi commodit y type	commodit y type	Tota l	Percentag e
Market potenti al	Immediatel y paid	6	10	5	12	36	18.2
	More than 24 hours	3	2	2	8	15	7.6
	Neutral	4	11	14	20	49	24.7
	More than week	5	4	2	6	17	8.6
	More than month	19	12	6	44	81	40.0
	Total	37	39	29	90	198	100

Table 4: The economic BEHAVIOUR patterns Climate of business

	metric	type	Competitiv e type industry	Semi commodit y type	commodit y type	Tota l	Percentag e
Climat e of busines s	Highly thriving	13	11	9	23	59	29.8
	Somewha t thriving	13	16	6	33	68	34.3
	Neutral	9	9	13	26	57	28.8

OF INDUSTRIAL

Industrial Engineering Journal

ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

Somewha t declining	2	3	1	7	1	5
Highly declining	0	0	0	1	1	.5
Total	37	39	29	90	198	100

Table 5: The economic BEHAVIOUR patterns cost influence on pricing

	Market metric potential	Monopol y type industry	Competitiv e type industry	Semi commodit y type	commodit y type	Tota 1	Percentag e
influenc e on pricing	Freely adjusting pricing	25	20	16	45	109	55.1
	Constraint s with adjust pricing	9	12	4	30	55	27.8
	Neutral	2	3	5	4	14	7.1
	Somewha t constrain	0	1	4	4	9	4.5
	Adjust pricing	1	3	0	7	11	5.6
	Total	37	39	29	90	198	100

CONSUMER ANALYSIS FOR DISCRIMINANT ANALYSIS

The discriminant analysis for the metrics procedures. The main aim of this to uncorrelated combination of original variable maximize the association relationship between predicting variable that maximize the cross-product metric analysis. The discriminant analysis of the linear combination that maximize the association by the following equation derived

$$DF1 = A_{10}X_{10} + A_{11}X_{11} + A_{12}X_{1} + A_{11}X_{2} + A_{13}X_{13} + \dots + A_{1P}X_{P}$$

DF = discrimination function, V = Discrimination coefficient X = Respondents score A = the constant. In the second discrimination it has been derived that 2^{nd} linear combination that uncorrelated with the linear combination that separated as the different group.

$$DF2 = A20X20 + A21X11 + A12X1 + A11X2 + A13X13 + \dots + A1PXP$$

The third discrimination function is illustrated that uncorrelated with the above 2 functions it serves as the 3^{rd} best separate the groups.

The discrimination analysis is used to conduct the multivariate analyzing the variance of testing the hypothesis. A sample of N=195 small business unit.

Wilk's, \(\mathbb{I} \) F- ratios, degree of freedom to function. This is to test the level of significance for F ratio

Industrial Engineering Journal ISSN: 0970-2555

Volume : 54, Issue 3, No.3, March : 2025

0.800 to 8.560 in 3 degrees of freedom was determination of the market potential F=8.56, DF=1, p=0.000.

Table 6: Test for Equity group mean

Predicting analytics	Wilk's \(\mathcal{1} \)	F	df 1	df 2	p
Consumer buying					
Behaviour					
metrics					
Profit rate of velocity	0.967	0.819	3	194	0.485
Turnover of the customer	0.971	1.911	3	194	0.120
Marketing metric analytics					
Potential of the market	0.883	8.560	3	194	0.000
Constrains of market entry	0.988	0.800	3	194	0.495
Economic metric analytics					
Climate of business	0.985	1.000	3	194	0.394
Energy constrains during inflation	0.975	1.679	3	194	0.173

CI = interval on confidence od ratio Wilks

Lambda test

In the discrimination with the different small scale business unit overall chi square test wilks λ =0.817, chi square= 38.848, df= 19, P= 0.004 2 function accounted nearly 80percent.

Table 7: Wilks Lambda test

Test function	Wilks lambda	Chi square	df	p
1 of 3	0.817	39.848	19	0.004
2 of 3	0.942	11.486	10	0.321
3 of 3	0.980	3.792	4	0.435

The eigen value of variance on correlation based on canonical. The result has highly successful 71.6per classified as the original categories.

Table 8: Eigen value of group equity

Function	Eigen value	Per of variance	Cum per	Canonical correlation
1	0.153a	71.6	71.7	0.364
2	0.041a	19.1	90.7	0.198
3	0.020a	9.3	100	0.140

Metrics result for correlation

the kal-parsons correlation is used to identify the relationship of two variables and measure the interval ratio. In this the regression analysis calculated for different variables for profit rate velocity, turnover of the customer, potential of the market, constrain to enter the market, climate of business, energy constrain on inflation.



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

$$r = \frac{1}{n-1} \sum \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

The correlation values denoted by XY; the two variables have been significantly correlated with the P value < 0.001. The strong relationship with the climate of business and the turnover of the customer the value 0.009 highly correlated with the above two variable.

Table 9: Metrics correlation means and standard deviations

variable	Mean	SD	1	2	3	4	5	6
profit rate velocity	2.76	1.727	_					
turnover of the customer	3.46	1.524	0.179	-				
potential of the market	1.61	1.199	0.086	0.112	-			
constrain to enter the market	3.26	1.408	0.145	0.067	0.189	-		
climate of business	2.14	0.938	0.045	0.009	0.020	0.066	-	
energy constrain on inflation	1.78	1.123	0.206	0.106	0.038	0.217		_''

EVALUATION OF THE STUDY

The main objective of the research is to compile a list of marketing measure analytics that impact the pre dictive analytics of consumers' buying habits for small company units. The study aims to provide empirical evidence to support the theoretical framework underpinning the research. Hypotheses were tested using discriminant analytics. The first hypothesis proposes a consumer behaviour model employing predictive analytics for small-scale business units. The discriminant analytics revealed a significant influence on consumer buying behaviour, with strong predictive analysis (p=0.582, p=0.323) for velocity and turnover of customers. The second hypothesis suggests marketing behaviour analytics utilizing marketing metric analytics for potential market analysis and constraints on market entry. The predictor market analysis yielded significant results (p=0.001, p=0.879). The third hypothesis proposes economic behaviour analytics as a predictor of consumer behavioural patterns. Economic analytics behaviour, including business climate and energy constraints due to inflation, yielded moderate significance (p=0.101, p=0.076).

CONCLUSION:

The study's objective was to determine the influence of marketing metrics analytics as a predictive factor for consumer buying behaviour patterns. Focusing on small business units, the research emphasized three main concepts: consumer buying behaviour patterns, marketing metric analytics, and economic constraint analytics. Initially, the conceptual framework was applied to examine the development of these concepts in small business units. Subsequently, six areas were elaborated upon, and the results from discriminant analytics demonstrated that marketing metric analytics proved to be moderately significant. Through Pearson correlation, it was identified that the three concepts require further development to become better predictors of consumer behaviour patterns. In conclusion, the study underscores the growing importance of marketing metric analytics in understanding consumer behaviour. While the results did not fully meet expectations in measuring consumer behaviour towards small-scale business units, the researcher advocates for further investigation into marketing metric



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

analytics. The literature review conducted for the study contributed to marketing theory, and potential analytical tools were utilized to enhance the research findings.

REFERENCES

- 1. Acker, O., Gröne, F., Blockus, A., & Bange, C. (2011). In-memory analytics strategies for real-time CRM. Journal of Database Marketing & Customer Strategy Management, 18(2), pp. 129-136. doi:10.1057/dbm.2011.11
- 2. Afifi, A. & Clark, V. (1984). Computer-Aided Multivariate Analysis. Belmont, CA: Lifetime Learning Publications. Allen, J. & Yen, W. (1979). Introduction to Measurement Theory. Belmont, CA: Wadsworth.
- 3. R. Arun, M. Umamaheswari, A. Monica, K. Sivaperumal, Sundarapandiyan Natarajan and R. Mythily, "Effectiveness Performance of Bank Credit on the Event Management Firms in Tamilnadu State", In: Satyasai Jagannath Nanda and Rajendra Prasad Yadav (eds), Data Science and Intelligent Computing Techniques, SCRS, India, 2021, pp. 463-470. https://doi.org/10.56155/978-81-955020-2-8-42
- 4. Mythili, Udhayakumar, Umamaheswari, Arun (2021) Factors Determining Mutual Fund Investments in Coimbatore City, European Chemical Bulleting, 12(special issue 6), 4719–4727.
- 5. Ambler, T., Kokkinaki, F., & Puntoni, S. (2004). Assessing marketing performance: Reasons for metrics selection. Journal of Marketing Management, 20(3/4), 475-498. Ayres, I. (2007). Super Crunchers: Why Thinking By Numbers Is The New Way To Be Smart. New York: Bantam.
- 6. Babbie, E. (1973). Survey Research Methods. Belmont, CA: Wadsworth Publishing. Bailey, C., Baines, P. R., Wilson, H., & Clark, M. (2009). Segmentation and customer insight in contemporary services marketing practice: why grouping customers is no longer enough. Journal of Marketing Management, 25(3/4), pp. 227-252.
- 7. Babbie, E. (1973). Survey Research Methods. Belmont, CA: Wadsworth Publishing. Carpenter, S. (2012). From cookies to consumers to the bottom line; Understanding and applying concepts. Advances in Management, 5(7), pp. 5-7.
- 8. Arun, R. "A Study on the Performance of Major Spices in India." Recent Trends in Arts, Science, Engineering and Technology (2018): 149.
- 9. Chan, J. O. (2005). Toward a unified view of customer relationship management. Journal of American Academy of Business, Cambridge, 6(1), 32-38.
- 10. Dr.Naveen Prasadula (2023) Review of Literature of Profitability Perspectives: Examining Consumer Buying Behaviour With Marketing Analytics
- 11. Chan, J. O. (2006). A conceptual model for operations-analytics convergence. Journal of American Academy of Business, Cambridge, 8(1), pp. 48-54. Converse, J. & Presser, S. (1986). Survey Questions: Handcrafting the Standardized Questionnaire. Thousand Oaks: Sage
- 12. Dunn-Rankin, P., Knezek, G., Wallace, S. & Zhang, S. (2004). Scaling Methods (2nd ed.).Hillsdale: Erlbaum. Eicher, J., & Ruder, D. (2007). Business process analytics: A new approach to risk. Journal of Alternative Investments, 10(2), pp. 76-84.
- 13. K. Rani, Dr. J.Udhayakumar, Dr. M.Umamaheswari, Dr.R.Arun,(2021) "Factors Determining The Purchases of Clothing Products Through Social Media Advertisements in Coimbatore City", European Chemical Bulleting,12(special issue 6), 4728–4737.



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

Dr.Naveen Prasadula (2023) Review of Literature of Profitability Perspectives: Examining Consumer Buying Behavior With Marketing Analytics

- 14. K. C. Prakash, R. Arun, Ram Chandra Kalluri, Souvik Banerjee, M R Vanithamani, Biswo Ranjan Mishra(2021), Consumer Confidence Index and Economic Growth- Indian Context after the Covid-19, European Economic Letters, Pp 746-754, DOI: https://doi.org/10.52783/eel.v13i5.824
- 15. Farris, P., Bendle, N., Pfeifer, P., & Reibstein, D. (2006). The Marketing Metrics: 50+ Metrics Every Executive Should Master. Upper Saddle River: Wharton School Publishing.
- 16. Grewal, D., Iyer, G. R., Kamakura, W. A., Mehrotra, A., & Sharma, A. (2009). Evaluation of subsidiary marketing performance: combining process and outcome performance metrics. Journal of the Academy Of Marketing Science, 37(2), 117-129.
- 17. Harikumar, L., & Nagadevara, V. (2012). Analytics: A competitive edge for a retail portal. Journal of The Academy of Business & Economics, 12(1), pp. 43-48.
- 18. Thangaraja Arumugam, R. Arun, R. Anitha, Swerna P. L., Aruna R., Vimala Kadiresan, Advancing and Methodizing Artificial Intelligence (AI) and Socially Responsible Efforts in Real Estate Marketing, Data-Driven Intelligent Business Sustainability, Chapter 4, DOI: 10.4018/979-8-3693-0049-7
- 19. https://orcid.org/my-orcid?orcid=0000-0002-9764-6048
- 20. Hodge, N. (2011). Harnessing analytics. Financial Management (14719185), pp. 26-29. Hill, R. P., & Moran, N. (2011). Social marketing meets interactive media. International Journal of Advertising, 30(5), 815-838. doi:10.2501/IJA-30-5-815-838
- 21. Jaccard, J. & Jacoby, J. (2010). Theory Construction and Model-Building Skills: A Practical Guide for Social Scientists. New York: The Guilford Press.
- 22. Keppel, G. (1982). Design and Analysis: A Researcher's Handbook (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall. Kerlinger, F. (1985). Foundations of BEHAVIOURal Research (3rd ed.). New York: Holt Rinehart and Winston.
- 23. Lee, Y. (2012). A fuzzy analytic network process approach to determining prospective competitive strategy in China: A case study for multinational biotech pharmaceutical enterprises. Journal of Business Economics & Management, 13(1), pp. 5-28. doi:10.3846/16111699.2011.620165
- 24. Marsella, A., Stone, M., & Banks, M. (2005). Making customer analytics work for you! Journal of Targeting, Measurement & Analysis For Marketing, 13(4), pp. 299-303.
- 25. Mertler, C. & Vannattta, R. (2002). Advanced and Multivariate Statistical Methods (2nd ed.) Los Angeles: Pyrczak Publishing.
- 26. https://www.scopus.com/dashboard.uri?origin=&zone=TopNavBar
- 27. Ozimek, J. (2010). Issues with statistical forecasting: The problems with climate science And lessons to be drawn for marketing analytics. Journal of Database Marketing & Customer Strategy Management, 17(2), 138-150. doi:10.1057/dbm.2010.12
- 28. Panayides, P. M. (2002). Identification of strategic groups using relationship marketing criteria: A cluster analytic approach in professional services. Service Industries Journal, 22(2), 149-166.
- 29. Solcansky, M., Sychrova, L., & Milichovsky, F. (2011). Marketing effectiveness by way of metrics. Economics & Management, 16, 1323-1328.
- 30. Stevens, J. (1992). Applied Multivariate Statistics for the Social Sciences (2nd ed.) Boston: Allyn and Bacon. Vasarhelyi, M. A., Alles, M. G., Kogan, A., & O'Leary, D. (2004).



ISSN: 0970-2555

Volume: 54, Issue 3, No.3, March: 2025

Principles of analytic monitoring for continuous assurance. Journal of Emerging Technologies in Accounting, 1pp. 1-21.

- 31. Thangaraja Arumugam, R. Arun, Sundarapandiyan Natarajan, Kiran Kumar Thoti, Shanthi P., Uday Kiran Kommuri, Unlocking the Power of Artificial Intelligence and Machine Learning in Transforming Marketing as We Know It, , Data-Driven Intelligent Business Sustainability, Chapter 5, IGI Global Publishing DOI: 10.4018/979-8-3693-0049-7
- 32. Weinzimmer, L. G., & Manmadhan, A. (2009). Small business success metrics: The gap between theory and practice. International Journal of Business Research, 9(7), pp. 166-173.
- 33. Ya-Yeuh, S., & Chung-Yuan, L. (2003). A method for customer lifetime value ranking Combining the analytic hierarchy process and clustering analysis. Journal of Database Marketing & Customer Strategy Management, 11(2), pp. 159-172.
- 34. Zikmund, W. (2003). Exploring Market Research (8th ed.) New York: Thomson-Southwestern.

UGC CARE Group-1