



THE ONLINE CONSUMERS FOR INDISPENSABLE ONLINE GROCERIES PURCHASING THROUGH SITES STATISTICAL APPRECIATIONS: -A CLUSTER ANALYSIS

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ABSTRACT- This study aims to analyze how consumers purchase groceries from online websites using analytical methods. The primary focus is on website functional variables, which consumers analyze for clustering in this study's gain on. This study attempts to categorize consumers' emotive metrics into batch based on websites. The statistical method utilized for this purpose is K-means clustering analysis.

Keywords: Consumers, websites, online buying, & Cluster analysis.

I. INTRODUCTION

India is a vast country with diverse consumption pattern and grocery preferences. Each state in India boasts unique cuisine styles and grocery selections. Kitchen governing represents one of the intricate yet essential justifications within Indian households. In every Indian household, a crucial ritual revolves around procuring essential food items, categorized into cooked, baked, and raw. The discussion on grocery purchases engages the observation of every household member. This process is designated as a distinct bustle with dedicated stages allocated to it. The sequence involves creating a list, visiting physical marketplaces, stopping at traditional market shops, navigating shelves, selecting various items, and interacting with store assistants. Nowadays, the billing process often involves long waits in queues for payments, impacting physical and mental stress levels. The landscape of grocery shopping in India has shifted from physical stores to online websites, influenced by the internet and educational advancements. Digital literacy is a crucial factor, and the Indian government has significantly contributed to the expansion of smart cities.

II. LITERATURE REVIEW

As stated by Business Wire's "Dublin Online Grocery Market in India, 2019" report, a large portion of customers in India often exhibit a tendency to switch between different options. Website food merchants tend to attract customers who prefer those offering more discounts, lower transportation fees, and higher value in voucher deals. As stated by Bilgihan (2016), accommodation marketers should understand how to respond to online marketing efforts and design their websites accordingly to encourage online bookings. As stated by Al-Debei et al. (2015), a web-based store site can undoubtedly be referred to as a data system designed to manage online purchasing information and processes using network technologies. As stated by Mosteller, Donthu, and Eroglu (2014), shoppers' interactive experience with website information is influenced by three main structural characteristics, which in turn affect their psychological and emotional evaluations of the information provided. As stated by Liaukonyte, Teixeira, and Wilbur (2015), a promotion that stimulates interest without providing excessive information may be more effective than a brand's website.

As stated by Mortimer et al. (2016), this approach argues that when customers perceive value-based outcomes from their website purchases, it significantly enhances their trust and motivation. As stated by Khare (2016), researchers highlight the importance of incorporating various features such as friendly interfaces, color schemes, site layout, design, and interactivity to create positive responses towards online

shopping sites. As stated by Lee et al. (2017), the outcomes of adopting online shopping include reducing the need for multiple physical store visits by facilitating more aspects of the shopping experience through online platforms. As stated by Kozlenkova (2017), social media platforms play a crucial role in e-commerce by enhancing brand and product awareness, providing information, and connecting users to online marketplaces and retail networks. As stated by Anaza (2014), industries based on intangible services replicate online buyers' personalized engagement practices aimed at supporting the organization's efforts to provide improved services to each website customer.

III. RESEARCH METHODOLOGY

The study uses both primary and secondary sources for data collection. The data is sourced from the Greater Noida marketplace, with families constituting the sample. The sample size includes two hundred respondents. To control noise in the study, participants were asked to switch off their mobile phones. The questionnaire was used as the tool for data collection. Data collection was conducted exclusively during the evening hours. Convenience sampling was used to establish sample associations. To gain insights into customer purchasing behavior from various websites, interview sessions were conducted.

Statistical Tables and Analysis

Analyzing the tables below reveals that cluster generation provides a clear understanding of online factors, linking psychological aspects of buying with websites.

Final Cluster Centers				
variables		Cluster		
		1	2	3
1	Online grocery websites offer a wide variety of items.	5	4	5
2	Online grocery websites offer a convenient navigation feature.	5	4	5
3	Online grocery websites offer a secure shopping cart feature.	5	4	4
4	Online grocery websites offer easily accessible customer support services.	5	4	4
5	Online grocery websites make it easy for customers to find competitive prices.	5	4	4
6	Online grocery websites make it convenient for customers to find different offers from various brands.	5	4	4
7	Online grocery websites make it easy for customers to search for and compare items.	5	5	4
8	Online grocery websites make it convenient for customers to specify quantities for each item.	5	5	5
9	Online grocery websites offer faster purchasing options compared to traditional market shopping.	5	4	4
10	Online grocery websites provide additional information to encourage larger purchases.	4	5	4
11	Online grocery websites offer fast order processing and delivery times.	5	5	4
12	Online grocery websites offer a variety of payment options.	4	5	4
13	Online grocery websites help save money on family spending plans.	5	4	4
14	Online grocery websites encourage clients to become regular buyers.	4	4	4

ANOVA						
	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
1. Online grocery websites offer a wide range of items.	7.654	2	.189	197	40.562	.000
2. Online grocery websites provide quick navigation features.	13.786	2	.276	197	49.897	.000
3. Online grocery websites offer secure cart features.	14.392	2	.270	197	53.280	.000
4. Online grocery websites provide accessible customer support services.	1.816	2	.272	197	6.668	.002
5. Online grocery websites make it easy for customers to find competitive prices.	13.103	2	.243	197	54.008	.000
6. Online grocery websites make it easy for customers to find different brand offers.	8.040	2	.296	197	27.198	.000
7. Online grocery websites make it convenient for customers to search for and compare items.	2.680	2	.389	197	6.895	.001
8. Online grocery websites make it easy for customers to specify quantities for each item.	.014	2	.252	197	.056	.946
9. Online grocery websites offer faster purchasing options compared to traditional market shopping	7.939	2	.293	197	27.058	.000

10. Online grocery websites offer additional information to encourage larger purchases.	1.338	2	.281	197	4.765	.010
11. Online grocery websites ensure fast order processing and delivery times.	1.426	2	.238	197	5.998	.003
12. Online grocery websites offer a range of payment options.	.546	2	.279	197	1.960	.144
13. Online grocery websites serve as a tool to help save money on family spending plans.	14.132	2	.190	197	74.405	.000
14. Online grocery websites encourage customers to become regular buyers.	6.199	2	.444	197	13.960	.000

1. Bundle analysis is a technique used for statistical data analysis, and K-means Bundling is a specific method employed for this purpose.
2. In the "Final Cluster" table, Cluster 1 includes clients (1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13) who strongly agree on using websites for stocks purchases. These partons are supportive and agile vipers of online grocery shopping. They demonstrate a positive response to varying (10, 12, 14), such as secondary facts to improve snap up areas sundry payment alternatives, and how online grocery websites influence them to become regular buyers.
3. In Cluster 1, we can refer to these clients as "Digital Purchasers" due to their robust oath to and vital apply of online stock places.
4. In Cluster 2, customers agree with the functionality and utility of online grocery sites (variables 1, 2, 3, 4, 5, 6, 9, 13, 14) but do not exhibit strong agreement with certain operational aspects. Their primary focus is on information-based factors (variables 7, 8, 10, 11, 12). This cluster can be termed "Information Seekers." Additionally, these customers show a preference for traditional market purchasing methods.
5. In Cluster 3, customers strongly agree with variables (1, 2, 8), which focus on product persuasion. They show general agreement with other variables related to online grocery purchases. This cluster can be termed "Product-Centric Customers." The broad spectrum of the clusters suggests three key elements in the online market: Mechanism, Data, and Spin-off.
6. The ANOVA table indicates circumstances substance for factors (1 to 14). However, variables 8 and 12 are not exactly substance.

IV. CONCLUSION

The study identifies an ethical model for online stocks pick-up, showing that while partons are obtain groceries online, traditional shopping still predominates. Online shopping is growing quickly, but websites need to introduce more innovative features. Additionally, there is an ongoing need for both on-page and off-page SEO optimization.

V. SUGGESTIONS

partons value stylish websites, attractive extend, standard and volume of products, and fast delivery in online stocks obtain. Online companies should maintain transparency and manage dispatches in a timely manner. Offers are a key factor driving online sales. Mobile advertising can be a powerful tool for reaching a broad audience. Digital marketers play a crucial role in keeping customers engaged on landing pages to drive revenue.

VI. LIMITATION

The case was over see in the Greater Noida NCR area. Conducting the research in different areas with diverse demographics could yield varying results.

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