

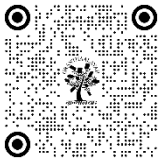


STUDY OF BUYING BEHAVIOUR OF CUSTOMERS IN DIGITALISATION OF RETAIL SECTORS

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DOI

[10.29121/shodhkosh.v5.i6.2024.6252](https://doi.org/10.29121/shodhkosh.v5.i6.2024.6252)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

The increasing disruption of traditional business models through digital technologies offers both significant opportunities and challenges for retail businesses and their network partners. Digital transformation – the process of converting traditional analog operations, procedures, organizational tasks, and managerial processes into digital forms to create value for customers, employees, and other stakeholders – has become a critical necessity. This review article helps to get vast knowledge of research in field of digital transformation, customer behaviourally aspect towards digitalization in retail. Topic will cover customer behaviourally pattern for digital technologies, impact of sensory marketing, service role in automation, mechanoid environment, segmenting and strategic implication of latest technologies in business.

Keywords: Digital Transformation, Automation, Mechanoid Environment, Digital Technologies, Traditional Business Models, Retail Businesses

1. INTRODUCTION

In the current business landscape, the retail sector is undergoing rapid evolution, driven by digital transformation. Emerging markets are shifting from traditional retail stores to digital platforms, leading to significant changes in business structures, ethics, consumer expectations, and the fundamental dynamics between retailers and customers. Advanced technologies are reshaping the industry, making it imperative to understand the profound impact of digital transformation on retail management strategies and consumer behavior. For businesses aiming for long-term success and continued relevance, embracing this shift is not just an option but a strategic necessity.

2. BACKGROUND

Traditionally, physical retail stores dominated the market. However, with the continuous evolution of digital technologies, these stores are increasingly being replaced or supplemented by e-commerce platforms. The integration of mobile applications, data analytics, and other digital innovations has revolutionized the retail experience, blending

physical and digital interactions into a unified omnichannel environment. This transformation is not a temporary trend but a lasting shift in how retail businesses operate, affecting everything from supply chains to customer engagement.

3. LITERATURE REVIEW: DIGITAL TRANSFORMATION IN RETAIL

Digital transformation has fundamentally reshaped the retail landscape, with far-reaching impacts on consumer behavior, operational efficiency, and business strategy. The literature reveals a wide array of factors influencing this transformation, from consumer attitudes and technological adoption to environmental and psychological aspects of online shopping.

1) Consumer Attitudes and Behavioral Shifts

Several studies underscore the evolution of consumer attitudes toward online shopping, particularly for groceries. Das and Todmal (2020) observed a steady shift in India since 2011, where online grocery shopping began gaining traction around 2015. Key determinants included product availability, convenience, freshness, delivery reliability, promotional offers, and overall shopping experience—all of which contribute to building consumer trust and driving adoption.

Rajesh (2019) explored demographic influences on online grocery shopping in Mumbai and found that age and product availability significantly impacted consumer behavior. Similarly, Kaur (2017) and Punjaini (2017) highlighted technical and psychological barriers influencing online grocery acceptance in India, especially among female consumers, who remain the primary decision-makers for grocery purchases.

2) Psychological and Behavioral Dynamics

Duroy (2014) examined compulsive buying tendencies in online retail environments, identifying psychological motivations such as loneliness, variety seeking, and emotional satisfaction. This aligns with findings by Hsu (2012), who identified perceived benefits, risk, and consumer innovativeness as predictors of online purchase intentions among Mongolian consumers.

Gupta (2008) and Rao (2008) emphasized the importance of understanding online consumer behavior, especially among India's tech-savvy youth. Factors such as trust, security, internet speed, and demographic variables (age, gender, education) significantly influenced shopping patterns.

Jones (2009) analyzed the relationship between consumer attitudes and perceptions of website quality among female shoppers, revealing that usability, trust, and information accessibility are key moderating factors in online retail satisfaction.

3) Technology Adoption and Market Dynamics

Gupta (2013) highlighted how the young Indian population, with increased access to smartphones and affordable internet, has created a favorable environment for digital retail growth. Kok Li-Ming (2013) found that trust, information accuracy, convenience, and price transparency were central to consumer attitudes toward online travel reservations, offering parallels to retail contexts.

Kim (2007) and Rose (2012) focused on website characteristics and customer experience (CE). Kim showed how comprehensive product information directly influenced profitability, while Rose developed a model for Online Customer Experience (OCE), identifying key variables that shape user satisfaction and brand loyalty.

4) Operational and Service Challenges

Shashank Rao (2014) addressed operational inefficiencies such as product returns, identifying product attributes, return policies, and distribution issues as major contributors. High return rates were often linked to stock shortages and delivery issues, which negatively impacted consumer trust.

4. SYNTHESIS AND GAPS IN THE LITERATURE

The literature consistently highlights convenience, trust, and digital literacy as central themes influencing consumer behavior in digital retail. While much research has focused on online grocery shopping, there is scope for deeper exploration into sensory marketing, AI-driven service automation, and the emerging mechanoid environment in retail settings. Furthermore, few studies have addressed longitudinal effects of digital transformation or the interplay between digital strategies and consumer segmentation in emerging markets.

Table 1 A Compilation of few more Scholarly Works on Consumer Behavior and Digital Transformation

S. No	Area of Research	Key Focus	Sources
1	Evolving Consumer Decision- Making Patterns	Consumers are prioritizing innovative, trendy products, brands, and quality.	Anil Kumar, Sachin Kumar Mangla, Sunil Luthra 2018 [11]
2	Online Consumer Behavior	Online behavior correlates with consumer actions on various digital platforms.	Jose Ramon Saura, Ana Reyes Menendez, Nelson de Matos 2020 [12]
3	Role of Innovations in Consumer Decision-Making	New technologies play a significant role in shaping consumer Choices.	Shiri Melumad, Rhonda Hadi, Christian Hildebrand 2020 [13]
4	Digital Transformation Impact	Digital transformation has enhanced product accessibility and affordability.	Prashant Yadav 2024 [14]
5	Consumer Engagement in Online Marketing	Online marketing appeals to consumers by offering easy feedback mechanisms, price comparisons, flexible return policies, and attractive discounts.	Rashmi Gujrati, Uma Gulati 2023 [15]
6	Organizational Culture in Digital Transformation	Focus on creating a supportive system to nurture organizational culture during digital transformation.	Marzenna Cichosz, Carl Marcus Wallenburg 2020 [16]
7	Digital Humans and Retail Engagement	The influence of gender and location on consumer interaction with digital humans in retail contexts.	Emmanuel Sirimal Silva, Francesca Bonetti 2021 [17]
8	Factors Influencing Customer Satisfaction	Satisfaction is impacted by price, time, and product comparisons. Larger store formats are linked to greater satisfaction.	Marcel Goi, Camilo Levenier, Ricardo Montoya 2021 [18]
9	Digital Transformation and Sustainability	Digital transformation has contributed positively to the competitiveness and resilience of retail industries and MSMEs.	Dr. Abhinav Goel 2024 [19-20]
10	Adapting Retail Strategies for Digital Change	Retailers must develop strategies to thrive in a competitive, digitally transformed market.	Sourav Dutta, Raghav Sandhane 2022 [20]
11	Influence of Digital Technologies on Marketing	Digital transformation improves market analytics, pricing, network management, and customer relations.	Federica Pascucci, Elisabetta Savelli 2023 [21]
12	Digital Transformation in Fashion Industry	Technologies offer opportunities to innovate and transform traditional fashion supply chains into digital models.	Daria Casciani, Olga Chkanikova 2022 [22]
13	Future Trends in In-Store Technology	New technologies are revolutionizing consumer experiences by providing new ways to shop and explore products.	Dhruv Grewal, Stephanie M. Noble, Anne L. Roggeveen 2020 [23]
14	Technological Advancements in Retail	Technology is shifting retail practices, focusing on smart distancing, disintermediation, hybrid bundles, and new retailer types.	Venkatesh Shankar, Tom Douglass, John Hennessey 2020 [24]

This table presents an organized overview of research focusing on consumer behavior and the digital transformation in retail, highlighting key themes and their associated scholarly references.

This literature review highlights the complex and intertwined nature of digital transformation in retail. It demonstrates how technology is reshaping all aspects of the industry, from strategic planning to customer engagement, and underscores the importance of adapting to these changes for continued success.

5. THEORETICAL FOUNDATIONS OF DIGITAL TRANSFORMATION IN RETAIL UNDERSTANDING THE FRAMEWORK

Digital transformation in retail is about more than just using technology—it's about using it to rethink business strategies. Westerman, Bonnet, and McAfee (2014) explain that digital technology plays two key roles:

- As a tool to improve existing business operations
- As a driver of strategic change in how businesses operate and compete

This review will explore how this framework applies to retail, including its benefits and limitations.

6. KEY CONCEPTS IN DIGITAL RETAIL TRANSFORMATION

1) Omni-Channel Retailing

Omni-channel retailing combines multiple shopping channels—such as physical stores, websites, and mobile apps—into one smooth customer experience.

Consumers now expect to move easily between online and offline platforms during their shopping journey. For example:

- Buy Online, Pick Up In Store (BOPIS)
- Cross-channel promotions and product recommendations
- Consistent branding across all channels

However, implementing these strategies comes with challenges, including managing inventory across platforms and integrating customer data (Brynjolfsson et al., 2013).

2) Data-Driven Decision-Making

In the digital age, data is one of the most valuable assets for retailers. It helps them understand:

- Customer preferences
- Shopping behavior
- Market trends

Using big data and analytics tools, retailers can make smarter decisions and improve their operations (Davenport, Harris, & Shapiro, 2010).

Types of useful data include:

- Purchase history
- Customer demographics
- Social media activity

This section will also look at how data is collected, analyzed, and the ethical concerns around data privacy.

3) Integration of Emerging Technologies

New technologies are reshaping retail. For example:

- Artificial Intelligence (AI): Personalized product suggestions, chatbots, predictive analysis
- Internet of Things (IoT): Smart shelves, RFID tracking, real-time inventory updates
- Augmented Reality (AR) & Virtual Reality (VR): Try-before-you-buy experiences

These technologies help retailers offer better service and manage operations more efficiently (McAfee & Brynjolfsson, 2017; Zhu et al., 2018). However, they also come with implementation challenges and costs.

7. ROLE OF TECHNOLOGY IN RETAIL MANAGEMENT

Technology is now deeply involved in every part of retail management.

- AI is used for customer service chatbots, pricing decisions, and inventory forecasting (Verhoef et al., 2015)
- IoT devices help track stock, monitor product conditions, and personalize in-store customer experiences (Ng, 2019)

8. CRM AND PERSONALIZATION

Customer Relationship Management (CRM) tools use customer data to create detailed profiles. These tools help retailers:

- Send personalized offers
- Improve communication

- Build long-term customer loyalty (Huang & Rust, 2018)

9. EVOLUTION OF RETAIL WITH TECHNOLOGY

Since the internet's rise in 1994, retail has changed dramatically:

- Online shopping introduced fast delivery and e-tailing (Levy & Weitz, 1995)
- Retail moved from single-channel to multi-channel and then omni-channel models
- Smartphones (especially after 2009) allowed customers to compare prices and shop easily (Levy et al., 2014; Grewal et al., 2018)

Events like the COVID-19 pandemic accelerated the shift to e-commerce, posing challenges for traditional stores (Gauri et al., 2020). Retailers must now adopt new technologies to stay competitive.

10. THE POWER OF INFORMATION AND EXPERIENCE

Today's consumers can easily research products and compare prices. Retailers that build strong relationships and use customer data effectively are more likely to succeed (Grewal et al., 2017).

In-store technologies—like mixed reality displays or smart shelves—make shopping more interactive and engaging (Stern, 2019). Even impulse buying can be influenced by visual merchandising and technology

11. METHODOLOGY

11.1. OBJECTIVES

This research seeks to explore the multifaceted dimensions of digital transformation within the retail sector. The key objectives of the study are as follows:

- 1) Understanding the Drivers of Digital Transformation.
- 2) Examining the Challenges Faced by Traditional Retailers.
- 3) Analysing Shifts in Consumer Expectations and Behavior.
- 4) To understand the impact of store orientation on consumer buying behaviour of online grocery consumers.

11.2. DATA COLLECTION

The current study is examining the framed research objectives and provided hypotheses using a research approach known as descriptive research. The research required the collection of both primary as well as secondary sources of information. Secondary data are gathered through the use of reference materials such as textbooks on consumer buying behaviour, online marketing, online grocery shopping, magazines, journals for research articles, newspapers, and numerous websites accessible via the internet. A survey of consumers was conducted in order to acquire the necessary data for the goal of gathering primary data. For the purpose of the consumer survey, a structured, openly worded, and closed-ended questionnaire was produced.

To identify gaps in existing research, the study focused on overlooked areas. The following steps were followed to guide the review process:

- 1) Keyword Search: Relevant keywords were used across various search engines like Google Scholar to find useful articles.
- 2) Inclusion and Exclusion Criteria: Criteria were established to decide which sources were included in the review, ensuring their relevance and quality.
- 3) Filtering: Irrelevant sources were excluded from the review.
- 4) Synthesis: The selected articles were analyzed and combined to build a framework that highlights the factors affecting consumer buying behaviour in the digital age.

A conceptual framework was developed, focusing on how digital transformation affects changing consumer behaviour, setting the stage for the analysis.

Sample Size : Since it is impossible to know the size of the population, the sample size is determined by combining the standard normal deviation for a level of confidence of 95 percent (1.96), the percentage of people selecting an option or answer (50 percent, or 0.5), and the confidence interval (0.05, which is equal to either + or -5). Using the given values, the calculated sample size is approximately 384 respondents.

12. REVIEW ANALYSIS

This review paper looks at how different demographic groups use digital retail technologies like AI-powered recommendations, augmented reality (AR), and voice-assisted shopping. The study examines the influence of digital platforms on consumer decision-making compared to traditional shopping. Additionally, it looks at the operational and strategic challenges faced by traditional retailers when transitioning to digital platforms. Key topics include consumer trust, data privacy, security concerns, and the influence of social media influencers, advertising, and peer reviews on purchasing decisions.

ABCD Analysis of the Reviewed Research Topic

The ABCD analysis is a tool that helps assess the Advantages, Benefits, Challenges, and Disadvantages of a topic. It offers a well-rounded view of the subject and helps ensure that important perspectives are not missed.

A – ADVANTAGES

- 1) Convenience and Accessibility: Digital transformation allows consumers to shop anytime, from anywhere. E-commerce and mobile apps remove geographical and time barriers, making shopping more accessible.
- 2) Personalization and Targeted Marketing: AI and data analytics allow retailers to personalize the shopping experience based on customer preferences, making offers and recommendations more relevant.
- 3) Increased Consumer Engagement: Digital platforms like social media, chatbots, and online customer service allow direct interaction between consumers and brands, fostering brand loyalty.
- 4) Improved Inventory and Supply Chain Management: Retailers can use AI and data analytics to manage inventory efficiently, avoiding stockouts or overstock situations.
- 5) Faster, Seamless Shopping Experience: Quick checkout, integrated payment systems, and fast delivery options, such as one-click buying, improve convenience and customer satisfaction.

B – BENEFITS

- 1) Enhanced Consumer Satisfaction: Digital transformation creates smoother shopping experiences, faster service, and better customization, making customers feel understood and happy.
- 2) Better Decision-Making: Consumers can now access more information than ever—reviews, ratings, and comparisons—helping them make informed purchase decisions.
- 3) Increased Spending: Personalized experiences often lead to higher consumer spending. Loyalty programs, discounts, and tailored offers encourage repeat purchases.
- 4) Competitive Advantage for Retailers: Retailers who embrace digital transformation can stay ahead of competitors by offering better shopping experiences and quickly adapting to consumer trends.
- 5) Broader Reach and Market Expansion: Digital platforms give retailers access to global markets, opening up new revenue opportunities, especially for smaller businesses.

C – CHALLENGES

- 1) Data Privacy and Security Concerns: The collection of large amounts of consumer data raises privacy and security concerns. Data breaches can harm a retailer's reputation and erode consumer trust.
- 2) High Costs of Implementation: Implementing digital technologies like AI and machine learning often requires significant investment. Small businesses may struggle with the upfront costs.
- 3) Integrating Digital and Traditional Channels: Many retailers find it difficult to merge digital platforms with their existing in-store operations. Creating a smooth omnichannel experience requires coordinating inventory and customer service systems across both online and offline.

- 4) Consumer Resistance to Change: Some consumers are hesitant to embrace digital technologies, such as online payments or personalized recommendations, due to privacy or security concerns.
- 5) Keeping Up with Rapid Technological Advancements: The fast pace of technology means retailers must keep investing in new systems to stay competitive, which can be overwhelming.

D – DISADVANTAGES

- 1) Loss of Personal Interaction: With more people shopping online, the personal interaction that comes with in-store experiences may be lost. Customers may miss the ability to engage with sales associates and touch products before buying.
- 2) Over-Reliance on Technology: Retailers who depend too much on digital tools may struggle if these systems fail. Technical issues like website crashes or payment problems can lead to lost sales.
- 3) Reduced Loyalty to Physical Stores: As more consumers shop online, physical stores may see fewer customers. Retailers who don't integrate digital features may struggle to meet the demand for a seamless online and offline experience.
- 4) Increased Competition: Digital platforms increase competition, as global companies like Amazon have a wider reach and can offer better prices and advanced features, making it harder for smaller retailers to compete.
- 5) Impact on Employment: The automation of retail through AI and other technologies may lead to job losses in areas like customer service and sales. While new tech jobs are created, traditional roles may disappear.

To understand the impact of store orientation on consumer buying behaviour of online grocery consumers following hypothesis was created:

H0: The null hypothesis states that there is no association between demographic variables and perception of the respondents towards Store Orientation

H1 The null hypothesis states that there is association between demographic variables and perception of the respondents towards Store Orientation

13. DESCRIPTIVE ANALYSIS

Descriptive analysis was used to summarize and interpret the main features of the collected data. In this study, descriptive statistics were applied to assess the demographic and socioeconomic profiles of the respondents. Additionally, Pearson's Chi-square test was employed to examine the relationships between categorical variables and various factors of interest in the study.

14. DEMOGRAPHIC PROFILE

Demography is the statistical study of human populations, focusing on aspects such as size, structure, and distribution. In research, demographic variables refer to personal characteristics used to describe a study sample, often called sample characteristics. Although demographic variables are not subject to direct modification, they are essential for interpreting patterns and understanding relationships between different variables.

In this study, demographic factors such as gender, age, marital status, educational qualification, occupation, income level, family type, and family size were analyzed to understand consumer behavior related to online grocery shopping.

- 1) Socio-demographic variables include:
 - Gender
 - Age
 - Marital Status
- 2) Socio-economic variables include:
 - Educational Qualification
 - Occupation
 - Monthly Family Income

The detailed summary of these demographic and socioeconomic profiles is shown in Table given below which provides a clear overview of the background characteristics of the respondents.

These variables help determine whether the sample represents the broader population and are essential for analyzing patterns in consumer behavior, especially in the context of digital retail and online grocery shopping.

Table 2 Socio-Demographic and Socio-Economic Profile of the Respondents

Demographic Variables	Categories	Frequency	Percentage of Respondents (%)
Gender	Female	202	52.6
	Male	182	47.4
	Total	384	100.0
Age	18 – 28 years	244	63.5
	29 – 38 years	80	20.8
	39 – 48 years	45	11.7
	Above 49 years	15	3.9
	Total	384	100.0
Educational Qualification	Graduate	226	58.9
	Post Graduate	141	36.7
	Professionals	17	4.4
	Total	384	100.0
Occupation	Government	14	3.6
	Private Employee	229	59.6
	Professionals	113	29.4
	Home Makers	28	7.3
	Total	384	100.0
Family Monthly Income (in ₹)	Less than ₹25,000	216	56.3
	₹25,001 – ₹45,000	96	25.0
	₹45,001 – ₹65,000	30	7.8
	₹65,001 – ₹85,000	8	2.1
	₹85,001 and above	34	8.9
	Total	384	100.0
Marital Status	Married	214	55.7
	Unmarried	170	44.3
	Total	384	100.0
Family Size	2 – 5 Members (Small)	272	70.8
	6 – 10 Members (Medium)	109	28.4
	More than 10 Members	3	0.8
Demographic Variables	Categories	Frequency	Percentage of Respondents (%)
	(Large)		
	Total	384	100.0

Inference and Observations from Table 2

Socio-Demographic and Socio-Economic Profile of Respondents

1) Gender

The data reveals that out of 384 respondents, 202 (52.6%) were female and 182 (47.4%) were male. This suggests a slightly higher participation of female respondents in the study. Gender is a fundamental demographic variable and helps in understanding gender-based perceptions and preferences related to online grocery shopping.

2) Age

A majority of the respondents, 244 (63.5%), were in the age group of 18–28 years, followed by 80 respondents (20.8%) in the 29–38 years group. 45 respondents (11.7%) were aged between 39–48 years, and only 15 (3.9%) were aged 49 years and above. This indicates that younger consumers, particularly millennials and Gen Z, are more actively involved in online grocery shopping.

3) Educational Qualification

In terms of education, 226 respondents (58.9%) were graduates, 141 (36.7%) were postgraduates, and 17 (4.4%) were professionals. This indicates that a well-educated population is engaging in online grocery shopping, which may reflect a higher level of digital literacy and openness to adopting digital retail platforms.

4) Occupation

Regarding occupation, 14 respondents (3.6%) were government employees, 229 (59.6%) were employed in the private sector, 113 (29.4%) were self-employed or professionals, and 28 (7.3%) were homemakers. This highlights that working professionals, particularly from the private sector, form the largest segment using online grocery services.

5) Monthly Family Income

Income-wise, 216 respondents (56.3%) reported a monthly family income below ₹25,000, followed by 96 (25.0%) with income between ₹25,001–₹45,000. 30 respondents (7.8%) earned between ₹45,001–₹65,000, 8 (2.1%) between ₹65,001–₹85,000, and 34 respondents (8.9%) had incomes above ₹85,000. This variable is crucial for understanding purchasing power and affordability in the context of online grocery shopping.

Table 3 Association between Demographic Variables and the perception towards Store Orientation

Gender	Store Orientation					Total	x ₂	P Value
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree			
Female	27	88	64	18	5	202	6.105	0
Male	12	76	71	17	6	182		
Total	39	164	135	35	11	384		
Age							23.26	3.026
18-28	21	89	95	30	9	244		
29-38	10	42	21	5	2	80		
39-48	7	25	13	-	-	45		
51-60	1	8	6	-	-	15		
Total	39	164	135	35	11	384		
Education							9.454	0.006
Graduate	23	98	80	19	6	226		
Post Graduate	14	61	47	14	5	141		
Professionals	2	5	8	2	-	17		
Total	39	164	135	35	11	384	49.97	0
Occupation								
Government	3	11	-	-	-	14		
Private	14	104	88	18	5	229		
Professional	21	41	33	12	6	113		
Home Maker	1	8	14	5	-	28		
Total	39	164	135	35	11	384	41.02	0.004
Family Monthly Income								
<Rs 25000	19	80	83	26	8	216		
Rs 25,001-45000	12	40	36	8	-	96		
Rs 45,001-65000	6	17	5	1	1	30		
Rs 65,001-85000	-	3	5	-	-	8		
Rs 85,001 & Above	2	24	6	-	2	34		
Total	39	164	135	35	11	384		

Inference from Table 3

Above Table tests the association between demographic variables and the study variable perception of respondents towards Store Orientation.

The null hypothesis states with the aim of there is no association stuck between gender as well as perception of the respondents towards Store Orientation is rejected at 5% level of significance $x_2(p < 0.05, 1) = 6.105$. It is proved that there is association between gender and perception of the respondents towards Store Orientation.

The null hypothesis states that there is no association stuck between age along with perception of the respondents towards Store Orientation is rejected at 5% level of significance $x_2(p < 0.05, 1) = 23.262$. It is proved that there is association between Store Orientation and perception of the respondents towards Store Orientation.

The null hypothesis states that there is no association sandwiched between educational qualifications and perception of the respondents towards Store Orientation is rejected at 5% level of significance $\chi^2 (p < 0.05, 1) = 9.454$. It is proved that there is association between educational qualifications and perception of the respondents towards Store Orientation.

The null hypothesis states with the intention of there is no association among occupation as well as perception of the respondents towards Store Orientation is rejected at 5% level of significance $\chi^2 (p < 0.05, 1) = 49.971$. It is proved that there is association between occupation and perception of the respondents towards Store Orientation.

The null hypothesis states that there is no association between family monthly income and perception of the respondents towards Store Orientation is rejected at 5% level of significance $\chi^2 (p < 0.05, 1) = 41.019$. It is proved that there is association between family monthly income and perception of the respondents towards Store

From the above Analysis it is proved that there is positive association between demographic variables and perception of the respondents towards Store Orientation

15. CONCLUSION

Digital transformation is more than just adopting new technologies—it fundamentally changes how retailers connect and engage with consumers. Understanding this impact, along with addressing the responsibilities it brings, will help retailers stay ahead of trends and meet the growing demands of today's tech-savvy shoppers.

The study concludes that demographic factors influence customers' perceptions of online grocery shopping. Additionally, digital transformation empowers consumers to save money and manage their finances better by offering convenient shopping options anytime and anywhere. E-commerce platforms and mobile apps remove geographical and time barriers, making shopping more accessible.

Technologies like artificial intelligence (AI) and data analytics enable retailers to personalize the shopping experience based on customer preferences, delivering more relevant offers and recommendations. Digital tools such as social media, chatbots, and online customer service foster direct communication between consumers and brands, which strengthens brand loyalty.

16. FUTURE DIRECTIONS AND RESEARCH FOCUS IN RETAIL TRANSFORMATION

As digital technology continues to evolve and reshape retail, future changes will be influenced by emerging technologies, shifting consumer behaviors, and external factors such as new regulations.

Future research should prioritize key topics, including:

- The ethical use of data in decision-making processes
- The impact of new technologies on retail employment
- How retail businesses can promote sustainability and social responsibility

Success in the digital retail era will depend on blending technological innovation with a strong understanding of human values. Retailers who can innovate while meeting customer needs, embracing inclusivity, and committing to sustainable practices will be best positioned to thrive in the future. Digital transformation is not just a shift in technology—it changes how retailers engage with consumers. Understanding its impact and addressing the associated responsibilities will help retailers stay ahead of trends and meet the growing needs of today's tech-savvy consumers. It is concluded that there is in impact of demographics on customer impression on online grocery shopping and that it is possible to save money every month and maintain financial management. Digital transformation allows consumers to shop anytime, from anywhere. E-commerce and mobile apps remove geographical and time barriers, making shopping more accessible. AI and data analytics allow retailers to personalize the shopping experience based on customer preferences, making offers and recommendations more relevant. Digital platforms like social media, chatbots, and online customer service allow direct interaction between consumers and brands, fostering brand loyalty.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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