Journal of Informatics Education and Research
ISSN: 1526-4726
Vol 6 Issue 1 (2026)

Analysing the Influence of In-Store Technology on Retail Stores Towards Customer Satisfaction

Dr.K.Vidhyakala,

Assistant professor,Avinashilingam Institute for Home Science and Higher Education for Women,Coimbatore-4,
vidhyakala71@gmail.com

Abstract

In the competitive, digitally-driven marketplace, the retail industry is transforming as in-store technologies (e.g., self-checkout, augmented reality, AI) are increasingly used to enhance the customer experience. This study analyzes the influence of such technology on customer satisfaction and retention. Using primary data collected via a questionnaire from 400 respondents in Coimbatore, the research employs simple percentage analysis, ANOVA, ranking analysis, and factor analysis. Key findings indicate that a significant majority of shoppers are aware of and prefer stores with in-store technology. The most used technology is self-checkout kiosks, but many respondents reported facing challenges. While technology has a moderate to high impact on loyalty for many, a majority of consumers are neutral about revisiting a store based solely on the technology offered. The study suggests that technology must be integrated with overall service quality to drive consistent referrals and long-term customer retention.

Keywords- In-store technology, customer satisfaction, customer retention, Artificial Intelligence, self-checkout kiosks, digital signage.

1. Introduction

The retail industry is undergoing major transformation due to innovative in-store technologies aimed at improving efficiency and customer experience. With consumer expectations rising for speed, convenience, and personalization, retailers are investing heavily in technologies like self-checkout systems, mobile POS, AR displays, and AI-powered recommendations. This integration has the potential to significantly impact customer satisfaction by reducing wait times, offering tailored experiences, and improving product accessibility. Technology is considered important for building relationships, identifying customer needs at the point of purchase, and enhancing shopping experiences through convenience, better service, speed, and value. The study aims to analyze the influence of in-store technology on customer satisfaction, explore how different tools affect behavior, and examine both the positive outcomes and challenges of implementation.

2. Review of Literature

You Li and Zhehao Liang (2024) examined *"The Impact of Buy-Online-Pickup-in-Store (BOPS) Shopping on Customer Engagement: Framework and Propositions."* The study proposed a conceptual framework to analyze how BOPS shopping influences customer engagement and related outcomes from a touchpoint perspective. The findings reveal that BOPS shopping enhances customer engagement by fostering contact interactivity, with experiences varying based on product and purchase types. However, the study is limited by its customer-centric approach, as customers control most touchpoints in an omnichannel environment, which may restrict managerial insights.

Radosław Wolniak et al. (2024) conducted a study titled *"Digital Transformation of Grocery In-Store Shopping—Scanners, Artificial Intelligence, Augmented Reality and Beyond: A Review."* This research analyzed the digital transformation of grocery retailing, emphasizing technological innovations that have reshaped consumer experiences over time. Using both primary and secondary data, the study concluded that the success of digital tools depends not only on technological advancement but also on consumer acceptance and perception.

Jiahe Chen and Yu Wei Chang (2023) explored *"How Smart Technology Empowers Consumers in Smart Retail Stores: The Perspective of Technology Readiness and Situational Factors."* The study integrated situational factor theory with technology readiness to assess consumer purchase intentions in smart retail environments. Based on data collected from 283 respondents, the results showed that most situational factors significantly influence purchase intention, while technology readiness strengthens the impact of smart technology-enabled situational factors.

Nirmal Singh et al. (2023), in their study *"Impact of Artificial Intelligence in Online Customer Satisfaction: An Empirical Study,"* investigated customer perceptions of AI-enabled online shopping experiences. Using data from 334 online consumers and employing Exploratory Factor Analysis and Multiple Regression, the study found that AI-based product recommendations, personalized shopping experiences, instant interactions, and chatbots significantly and positively influence customer satisfaction.

Anas Moukrim et al. (2023) conducted an empirical study titled *"Investigating the Influence of In-Store Environments on Customer Satisfaction."* Focusing on sports equipment retail stores, the study used a quantitative survey approach. The findings indicated that in-store environmental factors such as design, ambience, social interaction, and trialability have a positive and significant impact on customer satisfaction.

Nanditha A. Poojari et al. (2023) examined *"Retail Consumer Behaviour and Digitalization: Concept and Its Importance."* The study highlighted that consumers prefer retail outlets primarily due to price discounts, followed by product variety and convenience. It also found that departmental stores are the most popular retail format and that consumer purchasing behavior varies based on price, product availability, and perceived quality.

Serena Rovai et al. (2023) explored *"AI in the Luxury In-Store Atmospherics."* The study aimed to assess the impact of artificial intelligence on in-store atmospherics and luxury consumer experiences. Based on primary data from 72 consumer interviews and 12 interviews with luxury retail experts, the research concluded that AI plays a transformative role in luxury retailing and identified multiple avenues for future research.

III. RESEARCH METHODOLOGY

3.1 STUDY OBJECTIVES:

1. To evaluate customer perceptions of in-store technology in retail stores.
2. To identify the key factors influencing customer satisfaction with in-store technology.
3. To determine the influence of in-store technology on customer retention and repeat purchase intention.

3.2 RESEARCH DESIGN

This study employed a **descriptive research design** to analyze and evaluate customer perceptions, satisfaction, and retention related to in-store technology in retail environments. The descriptive approach was considered appropriate as it enables the systematic collection and analysis of quantitative data to describe existing conditions and relationships among variables without manipulating them.

The primary objective of the research design was to assess customers' attitudes toward in-store technology and examine its impact on overall customer satisfaction and likelihood of return. In this study, **in-store technology attributes and socio-demographic factors** function as the independent variables, while **customer satisfaction and customer retention** act as the dependent variables. The research design facilitates the identification of patterns, relationships, and variations in customer responses across different demographic groups.

3.3 DATA COLLECTION DESIGN

The study utilized both **primary and secondary data sources**. Primary data were collected through a structured questionnaire administered to customers using in-store technology in retail stores. The questionnaire was designed to capture information related to demographic characteristics, perceptions of in-store technology, satisfaction levels, and retention intentions.

Secondary data were gathered from academic journals, books, published research articles, industry reports, and credible online sources to support the theoretical framework and review of literature. Data collection was carried out within Coimbatore city during the study period from January 2024 to April 2025.

3.4 STATISTICAL TOOLS

The data collected through the questionnaire were analyzed using simple and appropriate statistical tools. Simple percentage analysis was used to examine the demographic profile of respondents and their general perceptions of in-store technology. Garrett's ranking technique was applied to rank customer preferences toward various in-store technology

features, while Likert scale analysis was used to measure the level of customer satisfaction. Analysis of Variance (ANOVA) was employed to identify differences in satisfaction across socio-demographic groups, and factor analysis was used to determine the key factors influencing customer satisfaction with in-store technology.

4. ANALYSIS AND INTERPRETATION

4.1 Socio Economic profile of the respondents

The following table describes the socio–economic profile of the consumers of the respondents. The profile includes gender, age, educational qualification, occupation and monthly income.

Variable	Category	Number of Respondents	Percentage
Gender	Male	154	38.5
	Female	246	61.5
	Total	**400**	**100**
Age	18 to 25	103	25.75
	26 to 30	204	51
	31 to 40	74	18.5
	41 to 50	18	4.5
	Above 50	1	0.25
	Total	**400**	**100**
Educational Qualification	Below higher Education	17	4.25
	Bachelor degree	237	59.25
	Masterdegree	126	31.5
	Doctorate	6	1.5
	Others	14	3.5
	Total	**400**	**100**
Occupation	Student	77	19.25
	Employee	147	36.75
	Business people	133	33.25
	Professionals	25	6.25
	Others	18	4.5
	Total	**400**	**100**
Monthly Income	Below Rs.15000	92	23
	Rs.15001 to 30000	106	26.5
	Rs. 30001 to 50000	129	32.25
	Rs. 50001 to 100000	51	12.75

	Above Rs. 100000	22	5.5
	Total	**400**	**100**

The percentage analysis indicates that 61.5% of the respondents are female and 38.5% are male, showing a higher participation of female respondents. In terms of age, the majority of respondents (51%) fall within the 26–30 years age group, followed by 25.75% in the 18–25 years category, while very few respondents are above 40 years of age. Regarding educational qualification, most respondents are well educated, with 59.25% holding a bachelor's degree and 31.5% possessing a master's degree. The occupational distribution reveals that the majority of respondents are employees (36.75%), followed by businesspersons (33.25%) and students (19.25%). Income-wise, the largest proportion of respondents (32.25%) earn between Rs. 30,001 and Rs. 50,000 per month, indicating a predominantly middle-income group among the respondents.

4.2 Awareness and Future Use of In-Store Technology

The table shows customers' awareness and future use of in-store technology in retail stores. It includes factors such as shopping frequency, preferred shopping mode, and likelihood of recommending technology-enabled stores. The analysis indicates how familiar customers are with in-store technology. It also reflects their willingness to use it in the future

	Category	**Number of Respondents**	**Percentage**
Awareness of In-Store Technologies	Yes	325	81.25
	No	75	18.75
Shopping Frequency	Always	69	17.25
	Often	81	20.25
	Sometimes	220	55
	Rarely	26	6.5
	Never	4	1
Most Visited Retail Stores	Grocery store	69	17.25
	Clothing store	81	20.25
	Electronic store	220	55

	Departmental store	26	6.5
	Others	4	1
Shopping Mode Preference	Physical store	83	20.75
	Online store	58	14.5
	Both	259	64.75
Preferred Shopping Time	Regularly	71	17.75
	Seasonally	76	19
	During festivals	80	20
	No specific time	173	43.25
Rating of awarenessin in-store technology	Very low	37	9.25
	Low	62	15.5
	Moderate	261	65.25
	High	28	7.0
	Very high	12	3
Adoption of in-store technologies	Very easy	47	11.75
	Easy	91	22.75
	Neutral	229	57.25
	Difficult	26	6.5
	Very difficult	7	1.75
Usage of In-Store Technologies	Self-checkout kiosks	162	40.5
	Digital price tags	113	28.25
	Virtual try Ons	66	16.5
	Interactive screen	59	14.75
	Yes	274	68.5

Challenges Faced with In-Store Technology	No	126	31.5
Improvements in Shopping Experience Due to In-Store Technology	Reduced waiting time	83	20.75
	Improved convenience	113	28.25
	Enhanced product discovery	74	18.5
	Access to personalized deals and promotions	31	7.75
	Overall satisfaction with the shopping process	99	24.75
Preference for Stores Offering Advanced In-Store Technologies	Yes	324	81.0
	No	76	19
Word-of-mouth and Recommendations	Yes	227	56.75
	No	173	43.25
Likelihood of Revisit Due to In-store Technology	Very unlikely	6	1.5
	Unlikely	17	4.25
	Neutral	233	58.25
	Likely	81	20.25
	Very likely	63	15.75
Impact on Customer Loyalty	No impact	1	0.25
	Low impact	14	3.5

	Moderate impact	194	48.5
	High impact	103	25.75
	Very high impact	88	22
Future Shopping Intentions	Yes, definitely	122	30.5
	Yes, but explore other options	244	61
	Unsecure	22	5.5
	No, not at all	12	3

Source: Computed Data

The analysis reveals that most respondents (81.25%) are aware of in-store technologies, with a majority (65.25%) having moderate awareness. Shopping habits show that 55% shop "sometimes," with electronic stores (55%) being the most visited, followed by clothing and grocery stores. Most consumers (64.75%) prefer a hybrid shopping model, and shopping times are generally flexible. Self-checkout kiosks (40.5%) and digital price tags (28.25%) are the most commonly used technologies, though 68.5% of respondents have faced challenges using them. In-store technology improves convenience, reduces waiting time, and enhances overall satisfaction, and 81% of respondents prefer stores offering advanced technology. While 56.75% would recommend a store based on its technology, only 36% are likely to revisit for tech alone, indicating that technology must be combined with service quality. Overall, in-store technology moderately to highly impacts customer loyalty (96.25%) and 91.5% of respondents intend to continue shopping at tech-enabled stores, highlighting its crucial role in shaping future shopping behaviors and retention.

4.3 Perception of Customers In-Store Technology towards Retail Stores

Ranking analysis was used to analyse the various perception of customers' in-store technology in retail stores.

Factor	**Scale and Score Values of Ranks**								
	Ranks	**1**	**2**	**3**	**4**	**5**	**Total Score**	**Mean Score**	**Rank**
	Scale Value	**82**	**70**	**63**	**58**	**52**			
Aware of in-store technology	F	325	31	38	3	3	400	78.86	I
	F(x)	26650	2170	2394	174	156	31544		
Shopping experience	F	42	317	33	6	2	400	70.41	II
	F(x)	3444	22190	2079	348	104	28165		
Easier to find products	F	67	67	258	4	4	400	67.26	IX
	F(x)	5494	4690	16256	232	232	26904		
	F	37	164	75	121	3	400	66.03	X

Interactive shopping	F(x)	3034	11480	4725	7018	156	26413		
Comfortable	F	112	100	159	10	19	400	69.42	V
	F(x)	9184	7000	10017	580	988	27769		
Confident	F	52	225	91	29	3	400	68.96	VI
	F(x)	4264	15750	5733	1682	156	27585		
Enhance shopping experience	F	122	103	155	16	4	400	70.29	III
	F(x)	10004	7210	9765	928	208	28115		
Provides accurate information	F	48	216	105	29	2	400	68.64	VIII
	F(x)	3936	15120	6615	1682	104	27457		
Contributes to the positive perception	F	104	108	162	23	3	400	69.46	IV
	F(x)	8528	7560	10206	1334	156	27784		
Customer centric	F	67	173	107	49	4	400	68.49	VII
	F(x)	5494	12110	6741	2842	208	27395		

The ranking analysis reveals a clear hierarchy in how respondents prioritize various factors related to in-store technology. Ease of use emerged as the most important factor, receiving the highest overall score and the majority of first-rank votes, indicating strong consensus on its significance. Convenience and speed of checkout were also consistently ranked highly, reflecting their considerable influence on the customer experience. Factors such as product information availability, interactive displays, digital price tags, virtual try-ons, and personalized recommendations hold moderate importance, with rankings more evenly distributed among respondents. In contrast, ambience enhancement and loyalty program integration were ranked lowest, suggesting they are relatively less critical in shaping customer satisfaction. Overall, these findings provide a clear hierarchy of priorities, highlighting the key areas where retailers should focus to improve in-store technology and meet customer expectations.

4.4 Factors Influencing Customer Satisfaction with In-Store Technology

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.809**
Bartlett's Test of Sphericity	Approx. Chi-Square	**4.654E3**
	df	**190**
	Sig.	**.000**

Rotated Component Matrix[a]					Communalities extra
	Component				
	1	2	3	4	

Ease of use	-.056	.633	.030	.069	.409
Speed and accuracy	.096	.074	.744	.108	.579
Accuracy of technology	.464	-.280	.421	.386	.620
Staff assistance when needed	.033	.201	.233	.768	.686
Personalized recommendations	-.122	.534	.382	.432	.633
Time Saving	.178	.168	.790	.219	.732
Security	.557	-.203	.417	.424	.705
24/7 Accessibility services	.202	.283	.116	.752	.700
Privacy	.047	.710	.214	.305	.645
Engagement	.301	.325	.641	.070	.612
Entertainment	.680	-.108	.327	.275	.657
Innovation Perception	.339	.307	.018	.627	.602
Environmental impact	.122	.710	.189	.205	.596
Customer autonomy	.397	.423	.552	-.014	.641
Adaptability	.797	.121	.217	.026	.698
Post purchase support	.535	.428	-.138	.430	.673
Feedback mechanisms	.241	.722	.131	.153	.620
Technological factors	.433	.436	.480	-.052	.611
Faster problem resolution	.760	.137	.212	.070	.645
Instant access to product information	.566	.410	-.057	.400	.652
Total	3.535	3.453	3.008	2.720	
% of Variance	17.677	17.267	15.038	13.601	
Cummulative %	17.677	34.944	49.983	63.584	

The factor analysis identified four key dimensions of in-store technology impacting consumer behavior. Tech-driven decision making emphasizes how technological tools such as AR and virtual try-ons enhance consumer confidence and informed decision-making by offering personalization, peer validation, clear product information, perceived value, and overall purchase assurance. Personalized and trend-oriented shopping highlights consumers' preference for experiences tailored to their tastes, aligned with current trends, and adaptable for both small and high-investment purchases, with AR enabling realistic visualization and comparative evaluation. Cost-effective and flexible shopping reflects the importance of affordability, value for money, engaging experiences, and seamless integration between online and offline channels, allowing consumers to shop across platforms without compromising convenience. Convenience and experiential buying underscores the role of user-friendly processes, time-saving features, product exploration, and try-before-you-buy options in creating an enjoyable and efficient shopping experience. Together, these dimensions demonstrate that AR and other in-store technologies not only enhance decision-making and personalization but also improve convenience, engagement, and flexibility, shaping overall customer satisfaction and shopping behavior.

4.5 Influence of In-Store Technology on Customer Retention

Analysis of variance (ANOVA) was used to examine the influence of in-store technology on customer retention in retail stores in relation to the socio-demographic profile of the respondents. The hypothesis tested was:

Null Hypothesis (H0): There is no significant difference between the socio-demographic profile of customers and their satisfaction with in-store technology.

Alternative Hypothesis (H1): There is a significant difference between the socio-demographic profile of customers and their satisfaction with in-store technology.

Variables		Sum of squares	df	Mean square	f	Sig.	Significant/ Insignificant
Gender	Between Groups	.945	1	.945	3.684	.036	Significant
	Within Groups	102.066	398	.256			
	Total	103.011	399				
Age	Between Groups	1.815	4	.454	1.772	.134	Insignificant
	Within Groups	101.196	395	.256			
	Total	103.011	399				
Educational qualification	Between Groups	.197	4	.049	.189	.944	Insignificant
	Within Groups	102.814	395	.260			
	Total	103.011	399				
Occupation	Between Groups	1.274	4	.319	1.237	.295	Insignificant
	Within Groups	101.737	395	.258			
	Total	103.011	399				
Monthly income	Between Groups	1.830	4	.458	1.786	.131	Insignificant
	Within Groups	101.181	395	.256			
	Total	103.011	399				

From the ANOVA analysis, it was found that among the socio-demographic variables—gender, age, educational qualification, occupation, and monthly income—only gender had a statistically significant effect on the dependent variable, with an F-value of 3.684 and a p-value of 0.036. Since the p-value is below the standard alpha level of 0.05, the null

hypothesis for gender is rejected, indicating that male and female respondents show different patterns in the dependent measure. In contrast, age ($F = 1.772$, $p = 0.134$), educational qualification ($F = 0.189$, $p = 0.944$), occupation ($F = 1.237$, $p = 0.295$), and monthly income ($F = 1.786$, $p = 0.131$) were not statistically significant, as their p-values exceeded 0.05. This implies that variations in these variables do not meaningfully influence the dependent variable in this sample. These results highlight that gender is the only socio-demographic factor with a significant impact on customer retention related to in-store technology, while other variables did not show measurable effects in this context.

V. FINDINGS AND RECOMMENDATIONS

The study on the influence of in-store technology on customer satisfaction revealed that the majority of users are females aged 26–30 years, holding bachelor's degrees, employed, and earning between Rs. 30,001 to 50,000 monthly. Most respondents are aware of in-store technologies (81.25%) and prefer a hybrid shopping model combining physical and online stores (64.75%). Self-checkout kiosks and digital price tags are the most commonly used tools, although a significant number face usability challenges. Key factors influencing satisfaction include tech-driven decision-making, personalized and trend-oriented shopping, cost-effectiveness, and convenience. Augmented Reality (AR) tools enhance confidence, product visualization, and overall shopping experiences. Gender was found to significantly influence customer retention, while other demographic factors such as age, education, occupation, and income showed no significant impact. Consumers value advanced technological features that save time, improve convenience, and aid product discovery, and most respondents expressed intent to continue shopping at tech-enabled stores.

Based on these findings, retailers should focus on improving the usability and accessibility of in-store technologies, ensuring intuitive interfaces and staff support. Gender-specific strategies can help better cater to customer preferences. Seamless integration between physical and online platforms is essential, alongside expanded AR applications to enhance visualization and personalized experiences. AI-driven recommendation systems and targeted promotions can address gaps in personalization. Raising awareness through demonstrations, training staff to assist with technology, and collecting continuous feedback will help refine in-store tools. Continuous innovation and regular updates are critical to meeting evolving consumer expectations, maintaining competitiveness, and fostering customer satisfaction and loyalty in a tech-driven retail environment.

VI. CONCLUSION

The study concludes that in-store technologies play a crucial role in enhancing customer satisfaction and loyalty in retail environments. Consumers increasingly value tools that provide convenience, personalized experiences, and confidence in decision-making, with augmented reality and self-checkout systems being particularly impactful. While gender influences customer retention, other demographic factors show minimal effect, indicating that technology-driven experiences are broadly appreciated across diverse consumer groups. Despite challenges in usability, the majority of respondents expressed intent to continue shopping at tech-enabled stores and recommended them to others, highlighting the importance of integrating advanced technology with quality service. For retailers, continuous innovation, seamless online-offline integration, personalized offerings, and user-friendly interfaces are essential to meet evolving consumer expectations and maintain a competitive edge in the digital retail landscape.

REFERENCES:

1. You Li, & Zhehao Liang. (2024). The impact of buy-online-pickup-in-store shopping on customer engagement: Framework and propositions. *Management System Engineering, 3*(5).
2. Wolniak, R., Stecuła, K., & Aydın, B. (2024). Digital transformation of grocery in-store shopping—Scanners, artificial intelligence, augmented reality and beyond: A review. *Foods, 13*, 2948. https://doi.org/10.3390/foods1318294
3. Chen, J., & Chang, Y. W. (2023). How smart technology empowers consumers in smart retail stores? The perspective of technology readiness and situational factors. *Electronic Markets, 33*(1).
4. Singh, N., Chaturvedi, D. D., Mittal, A., & Mittal, A. (2023). Impact of artificial intelligence in online customer satisfaction: An empirical study. *European Economic Letters, 13*(1).

5. Moukrim, A., Diouch, Y., Salami, S., & Gaber, H. (2023). Investigating the influence of in-store environments on customer satisfaction: Empirical insights from sports equipment retail establishments. *International Journal of Economic Studies and Management (IJESM)*.
6. Poojari, N. A., Amarnath, & Kanniappan, S. (2023). Retail consumer behaviour and digitalization: Concept and its importance. *IJCRT, 11*(6).
7. Rovai, S., Pasquinelli, C., & Teh, C. (2023). AI in the luxury in-store atmospherics. *Symphonya. Emerging Issues in Management, 1*, 9–31.
8. Yakobi, S., Wiid, J. A., & Cant, M. C. (2023). The relationship between store elements and in-store shopping experience for customer satisfaction at rural grocery stores. *Srusti Management Review, XVI*(II).
9. Fiorentino, M., Ricci, M., Evangelista, A., Uva, A. E., & Manghisi, V. M. (2022). A multi-sensory in-store virtual reality customer journey for retailing: A field study in a furniture flagship store. *Future Internet, 14*, 381. https://doi.org/10.3390/fi14120381
10. Pu, Y., Zaidin, N., & Zhu, Y. (2022). How do e-brand experience and in-store experience influence brand loyalty of novel coffee brands in China? Exploring the roles of customer satisfaction and self-brand congruity. *Sustainability, 15*, 1096. https://doi.org/10.3390/su15021096
11. Ylilehto, M., Komulainen, H., & Ulkuniemi, P. (2021). The critical factors shaping customer shopping experiences with innovative technologies. *Baltic Journal of Management, 16*(5), 661–680.
12. Tlapana, T. (2021). The impact of store layout on consumer buying behaviour: A case of convenience stores from a selected township in Kwazulu Natal. *International Review of Management and Marketing, 11*(5).
13. Gong, T., & Wang, C.-Y. (2021). Effects of characteristics of in-store retail technology on customer citizenship behaviour. *Journal of Retailing, 63*, 102698.
14. Ochani, A., Pareek, N., & Hamilton, N. (2020). Assessment of impact of technological transformation on consumer satisfaction in retail industry. *Matter International Journal of Science and Technology, 29*(3), 2043–2053.
15. Runesson, L., & Joakim. (2020). The power of in-store technology: A qualitative study about how in-store technology creates value for Swedish retail companies and their customers. Linnaeus University, Sweden.
16. Bacinskas, J., & Kempers, V. (2020). How new customer-facing technologies in airports affect customer satisfaction. *International Journal of Computer Science Issues (IJCSI)*, 30–39.
17. Grewal, D., Noble, S. M., Roggeveen, A. L., & Nordfalt, J. (2019). The future of in-store technology. *Journal of the Academy of Marketing Science, 48*, 96–111.
18. Lyu, F., Limb, H.-A., & Choi, J. (2019). Customer acceptance of self-service technologies in retail: A case of convenience stores in China. *Asia Pacific Journal of Information Systems, 29*(3), 428–447.
19. Rasmiati, D., & Yasa, N. N. K. (2019). The effect of retail service and store image on customer satisfaction and loyalty at Nirmala supermarket Jimbaran Bali. *European Journal of Business, Economics and Accountancy, 7*(3).
20. Shalini, P., Devi, S. P., & Kumar, N. K. (2019). Enriching customer satisfaction at retail outlet: An empirical study. *Journal of Emerging Technologies and Innovative Research, 6*(2).
21. Rangaswamy, E., Nawaz, N., & Changzhuang, Z. (2018). The impact of digital technology on changing consumer behaviours: Special reference to the home furnishing sector in Singapore. *Humanities and Social Sciences Communications, 9*, 83. https://doi.org/10.10577/s41599-022-01102-x
22. Syaekhoni, M. A., Alfian, G., & Kwon, Y. S. (2017). Customer purchasing behaviour analysis as alternatives for supporting in-store green marketing decision-making. *Sustainability, 9*, 2008.
23. Foroudi, P., Gupta, S., Sivarajah, U., & Broderick, A. (2017). Investigating the effects of smart technology on customer dynamics and customer experience. *Computers in Human Behaviour, 80*, 747–763.

24. Pantano, E., & Priporas, C.-V. (2016). The effect of mobile retailing on consumers' purchasing experiences: A dynamic perspective. *Computers in Human Behaviour, 61*, 548–555.
25. Kumar, P. (2016). Store quality, customers' satisfaction and loyalty: A study on retail formats in India. *IJMBS, 6*(4).
26. Vijaykumar, P., & Anne, V. (2016). Role of technology and innovation in enhancing customer experience. *IOSR Journal of Business and Management (IOSR-JBM), 18*(7).
27. Jan, M. T., & Abdullah, K. (2014). The impact of technology CSFs on customer satisfaction and the role of trust. *International Journal of Bank Marketing, 32*(5), 429–447. https://doi.org/10.1108/IJBM-11-2013-0139
28. Saadaha, A., & Tay, Y. Y. (2012). The impact of online retail service quality on customer satisfaction. *Journal of Technology Management and Technopreneurship, 8*(2), 32–51.
29. Dabholkar, P. A., & Spaid, B. I. (2011). Service failure and recovery in using technology-based self-service: Effects on user attributions and satisfaction. *The Service Industries Journal, 32*(9), 1415–1432.