

Examining the influence of marketing logistics on e-shoppers' satisfaction and post-purchase behaviour: Evidence from India

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Abstract

India's emergence as a fintech ecosystem, widespread social media influence, covid-19 and the rapid transformation of consumption patterns have significantly affected modern consumer behaviour. For e-retailers, other than providing products of excellent quality and reasonable price, they must improve online shoppers' satisfaction levels through sustainable marketing logistics. This paper examines the relationship between several evolving marketing logistics dimensions and customer satisfaction. Subsequently, it also examines the impact of customer satisfaction on customer loyalty, repurchase intention and word of mouth. The study targeted online shoppers in India using a purposive sampling technique and 516 valid responses were collected through an online structured questionnaire. Data were analyzed using a robust PLS-SEM- ANN sensitivity method wherein, an assessment of the measurement model, predictive power, and structural model was conducted. The findings of the study revealed that dimensions such as accessibility, ecological packaging, responsiveness mechanism and reverse logistics have a significant influence on customer satisfaction. Artificial Neural Network sensitivity outcome reveals that response mechanism is the most important dimension of marketing logistics, followed by reverse logistics, accessibility and ecological packaging. Additionally, customer satisfaction has a significant impact on customer loyalty, re-purchase intention and word-of-mouth. This study can help online retailers to further strengthen marketing logistics to improve customer experience.

Keywords: Marketing Logistics; Customer Satisfaction; Online Shoppers; Loyalty; Repurchase Intention; Sustainability; Word of Mouth.

1. INTRODUCTION

The fundamental idea behind marketing is to identify customer demands, satisfy customer demands and retain them while making a profit. The process that enables demand to be fulfilled more responsively and reliably can be critical to the achievement of marketplace success (Kotler, P. dan Keller, 2016). Customers largely benefitted from the e-retail market's exponential development in convenience, but it also intensifies competition among e-retailers. In today's volatile market, it is no longer sufficient to have attractive products, competitively priced and creatively advertised. Now,

marketers need to ensure appropriate time, product, place and possession utilities simultaneously through an efficient logistics module. Market experts and academicians have long acknowledged the growing significance of marketing logistics in obtaining customer satisfaction. This is supported by the Expectation-Confirmation Theory (ECT), which suggests consumers' intention to repurchase a product or service depends on their previous experience of using the product or service (J. Lee & Kim, 2020).

The interaction between marketing and logistics is critical to customer service delivery. Marketing logistics strategically focuses on the transportation, storage, and distribution of goods and services from the selling point to the ultimate consumption point. Effective marketing logistics is crucial for companies to achieve their marketing objectives, as it ensures that products are delivered to the right place, at the right time, in the right quantity, and at the right cost (Barcik & Jakubiec, 2013). Indeed, an organization's success or failure largely depends on its levels of customer service (Cao et al., 2018). Accordingly, marketers started focusing on strengthening last-mile marketing logistics to further augment customer services. There has been a trend towards demanding ever-higher standards of customer service. As a consequence, customer service has become a competitive battleground. It is often said that the best way to serve the customer is the way the customer wants to be served (Meidutė-Kavaliauskienė et al., 2014). However, designing optimum customer service metrics is complicated because it includes inter-functional synchronisation, specifically between the marketing and logistics functions. Without a sound linkage between marketing and logistics, the retailers might not meet the desired customer expectations, leading to customer disappointment (dissatisfaction) or vanished sales (Emerson & Grimm, 1996).

In the arena of online shopping, several attempts have been made to identify crucial dimensions of customers' behaviour by applying theoretical models (Lu et al., 2022). Nevertheless, customers' behaviour is witnessing unprecedented transformation due the market dynamics (Mishra et al., 2022).

The last decade has witnessed intense internet penetration, digital infrastructure and favourable business conditions leading to an exponential growth of e-commerce in India. Interestingly, the wider access and acceptance of social media has enabled smoothed marketing communication among customers, allowing businesses to reach a wider audience and drive online sales. It has become a source of shopping marketplace and information centre that influences consumer behaviour. Consequently, there is a large customer base who often use social media platforms for making purchase decisions, raising complaints, reviewing/ rating products etc., even in rural areas. Marketers who promptly and professionally cater to customers evolving social media needs have a competitive edge in the dynamic business environment (Jasin, 2022; Prasad et al., 2017; Ryu & Park, 2020).

Due to the fear of covid-19 pandemic, more families are turning to online shopping (Gao et al., 2020). e-shopping facilitates customers to shop from home. The final extension of the marketing logistics to consumers' desired delivery address enhances complexities in the administration of the supply chain (Nicholls & Watson, 2005). The rapid growth of online shopping underscores the importance of focusing on the issue of customer satisfaction (Liu et al., 2008). Kotler defined *customer satisfaction* "as a consequence of the customers' experience during various stages". Customer service has emerged as an important tool in satisfying customers in today's hyper-competitive online market. So, e-retailers are expected to identify the various dimensions of customer service (Liu et al., 2008). Robust marketing logistics as a key dimension of customer service can provide a competitive advantage for companies, allowing them to better meet customer needs and stay ahead of their competitors (Drobiazgiwicz, 2018).

Therefore, considering the rapid digitalization, the acceptance of social media, the search for sustainability, and COVID-19, an extensive understanding of the influence of marketing logistics on e-shoppers would help marketers design efficient marketing plans and policies. This study has been built on the available relevant literature by encompassing the marketing logistics dimensions such as accessibility, delivery charge, ecological packaging, reverse logistics, and response mechanism that are relevant in the above contexts. Several variables were identified from the related domains such as

e-commerce, customer psychology and consumer behaviour literature and were eventually utilised to understand the impact of marketing logistics on online customers' (e-shoppers') behaviour with special attention on customer satisfaction, re-purchase intention, word-of-mouth, and customer loyalty.

The paper consists of five broad sections. The first section deals with the introduction. It is followed by the review of literature which inculcates past literature, research gaps, along hypothesis development. The third section included research methodology which describes the process of data collection, data analysis procedure, assessment of the measurement model and predictive power of the model. The results of the data analysis are then discussed in the fourth section, which contains a comprehensive discussion of the findings, implications, and future research directions. Finally, the fifth section concluded the paper by briefly encapsulating the present study.

2. REVIEW OF LITERATURE AND RESEARCH GAP

Contemporary studies on consumer behaviour in online shopping may be divided into two broad contexts, i.e., customer satisfaction and marketing logistics. The concept of customer satisfaction can be based on Expectation - Confirmation Theory (ECT). The ECT was proposed by Richard L. Oliver in the 1980s. This psychological theory explains how consumers form and maintain expectations about others and how these expectations affect their behaviour.

The theory holds that consumers first construct an initial anticipation before making a purchase and then develop a perception regarding the performance of the product over time. The extent to which their expectation is confirmed by contrasting the product's or service's actual performance with their initial anticipation of the performance will determine the extent to which consumers are satisfied. Eventually, satisfied consumers will develop repurchasing tendencies. Similarly, customers will be more inclined to repurchase from the same e-commerce website, when their expectations are validated. (Mentzer et al., 1989) extended the ECT framework to provide an integrated customer service/satisfaction model called the MGK model. They combined both logistics (physical distribution system using three key dimensions: timeliness, quality and availability) and other marketing elements including order processing time, delivery time, delivery reliability, inventory reliability, the physical condition of goods, availability etc. in their model. The study found that the comparison of the perceived performance of the availability, time, quality and other marketing dimensions augments satisfaction/dissatisfaction and re-purchases.

Later on, (Emerson & Grimm, 1996) did empirical testing of the MGK model (Mentzer, Gomes and Krapfel model) by including more dimensions. The study further added, "communication as another construct in the logistics (physical distribution service activities) dimension and product quality, product support- sales representatives, product support- customer service representatives, pricing policy and warranty constructs in marketing service activities". However, only seven out of nine dimensions/constructs were found reliable and valid in the study whereas the warranty construct loaded together with the product quality and timeliness construct did not load well in the factor analysis. The analysis further confirmed the MGK model and its modifications along with some differences. The items of one construct were also related to other constructs. The authors claimed that these differences might be subjected to industry or methodology differences or because of modifications. Hence, the authors suggested that the model could be re-tested or applied in the industry specifically by including the timeliness construct as well. (Tsao, 2013) further extended the model and added new dimensions such as self-evaluation, money and situation. It result showed positive confirmation of satisfaction and impulsive purchase behaviour. Oliver, (2013) also proposed a three-stage integrated ECT model. (J. Lee & Kim, 2020; Rahi et al., 2021) also confirmed the ECT adoption model where the fulfilment of expectations paves the way for customer satisfaction and post-purchase buying intentions.

Marketing Logistics is a vital component of the broader field of logistic management. It involves the planning, implementation and control of the physical and informational flow of products from the point of sale to the ultimate point of consumption (Barcik & Jakubiec, 2013). It specifically focuses on the transportation, storage and distribution of products from the marketer to the end customer. Effective marketing logistics is crucial for the achievement of organizational marketing objectives. It is closely related to customer satisfaction as it directly impacts the availability and accessibility of products for consumers. It is also linked to other marketing functions such as product development, pricing, promotion and sales (Kawa & Światowiec-Szczepańska, 2021). Given the increasing complexity of global supply chains, and the growing importance of e-commerce, marketing and logistics have become increasingly complex and challenging, requiring companies to constantly adapt to changing market conditions and technological advancements (Kotler, P. dan Keller, 2016). Marketing logistics and customer satisfaction are closely linked to effective customer service, and can significantly impact customer satisfaction levels. When companies can deliver products to customers in a timely and efficient manner, it can increase customer satisfaction and re-purchase intention (Jain et al., 2017; Revindran et al., 2020).

RESEARCH GAP

There is an abundance of literature that establishes a strong positive relationship between logistics and customer satisfaction among e-shoppers. However, the studies related to the direct linkage of marketing logistics and e-shoppers' behaviour are relatively low. Additionally, prior studies on marketing logistics have mostly concentrated on the availability, tracking facilities, timeliness, delivery quality and trust of logistic service providers (Eid, 2011; Hidayat et al., 2016; Jain et al., 2015; M. J. Kim et al., 2011; Y. Kim & Peterson, 2017; Murfield et al., 2017; Rabinovich & Bailey, 2004; Revindran et al., 2020; Ziaullah et al., 2014). The logistics components such as ecological packaging, reverse logistics, response mechanisms, and delivery charges have received less attention. Lu et al., (2022) also suggested carrying out a comprehensive study on various dimensions of online shopping. Xing et al., (2011) also suggested to study the relationship between logistic services and customer satisfaction in the dynamic online shopping arena. Moreover, no relevant significant study was found in the Indian context. Therefore, considering the e-shoppers' perspective, the study will use the ECT as a foundational model while also identifying novel dimensions that have evolved as an outcome of digitalization, social media acceptance, sustainability objectives, and issues encountered by COVID-19 in the Indian context.

2.1 HYPOTHESES DEVELOPMENT

2.1.1 Product Accessibility and E-shoppers Satisfaction

The rapid growth of e-commerce has revolutionized the way people shop, providing convenience and accessibility to a wide range of products and services. Accessibility has emerged as the main driver for e-shopping (Maat & Konings, 2018). Moreover, it provides the ability to purchase goods from any location and at any time (Okamoto, 2016). Low offline/ retail shops nearby also promote the use of online shopping (Cao et al., 2018). The accessibility factor in the e-shopping platform triggers customers' buying experience (Swapana & Padmavathy, 2017) by eliminating distance obstacles (Jiang et al., 2013).

e-shopping is not bound by product search constraints and is independent of geographic distances between e-shoppers and the inventory location (Rabinovich & Bailey, 2004). Now, customers can order products from anywhere and it will be delivered at home. Here, home delivery doesn't mean an actual home, it can be any preferred place such as an office etc. (Risberg, 2022). The success of online retailers largely depends on how competently they can deliver the product to consumers' desired addresses (Sajitha Parveen, 2019). Another study examined the impact of accessibility on purchase intention in the e-shopping context. Mofokeng, (2021) revealed that there is a positive relation between perceived accessibility and purchase intention, indicating that accessibility can influence customer satisfaction and drive higher customer loyalty. Khalaf Ahmad (2012) also supported the idea

that accessibility has an influence on customer satisfaction, loyalty and word of mouth in the current and long run.

Thus, the following hypothesis is proposed:

Hypothesis 1: Accessibility positively influences e-shoppers satisfaction.

2.1.2 Delivery Charges and E-shoppers Satisfaction

With the enormous growth in online shopping, the delivery charges attribute of logistics has gained immense significance. Delivery charges are the cost of services incurred to transport the product from the seller to the buyer location (Noble Kennedy & Kundu, 2018). The understanding of how delivery charges impact customer behaviour is essential for businesses seeking to enhance customer satisfaction and build long-term loyalty.

Nowadays, customers often discriminate between the price of goods and charges for delivery (Okamoto, 2016). Customers never like to pay delivery charges for the product. Generally, customers prefer free or discounted delivery. So, e-retailers should ensure reasonable, justified and equitable delivery charges (Sajitha Parveen, 2019). Free shipping allows the consumer to browse easily online and increases sales (Petrescu, 2011). Price satisfaction has a positive effect on customer satisfaction with the fulfilment process in the online buying process. E-retailers calibrate shoppers convenience, delivery speed and delivery charges in a competitive way (Okamoto, 2016). Indeed, evidence indicates that consumers can be more sensitive to shopping costs than the item price itself. Consumers paying higher delivery charges are anticipated to have a more negative response towards the retailers (Brynjolfsson & Smith, 2005). Perception of justifiable delivery charges is believed to influence e-shoppers' preference for retailers and influences subsequent purchase behaviour (Jones et al., 2019).

Nonetheless, customers are ready to pay delivery charges to ensure speedy delivery of their products (Rajendran et al., 2018).

Hypothesis 2: Delivery charges positively influences e-shoppers satisfaction.

2.1.3 Ecological Packaging and E-shoppers Satisfaction

People are spending more online with the desire for convenience and monetary value resulting from longer work life hours, less leisure time, more internet penetration and mobile ownership (Cherrett et al., 2017). As the e-commerce industry continues to grow rapidly, concerns about its environmental impacts have become increasingly significant. Sustainability has become the hot headline for e-shoppers. Vermeir & Verbeke, (2008) defined sustainable/ecological packaging as a combination of economic, ecological and social aspects. The economic aspect has to do with a fair price for both entrepreneurs and consumers. The ecological packaging element considers the safeguard of the natural environment. The social component finally concerns the matching of production processes with the priorities and needs of the citizens.

Ecological packaging (sustainable packaging) is believed to be non-toxic (Kharbanda & Singh, 2022) and aims to minimize the environmental footprint of packaging materials and processes, has emerged as a potential solution to address this issue. As a result, products with sustainability claims and qualities have gained popularity in recent years due to their increased value appeal to consumers. Consumers consider ecological packaging as an important element when deciding on future purchases (Kharbanda & Singh, 2022). As a result of public interest in quality of life, including the quality of the natural environment, the notion of sustainable development has become very important for governments, as well as industries (Kletzan et al., 2006).

However, (William et al., 2009) revealed that many customers show concern about environmental issues yet only a few translate this concern into action, There are big discrepancies between ethical consumption intention and actual consumption behaviour. (Carrington et al., 2010) observed that these disparities arise due to several situational contexts. Later, (Grimmer et al., 2016) investigated a slew

of situational effects and the translation of impulsive intention to buy environment-friendly products into actual buying behaviour. The study further emphasised the positive role of ecological packaging and marketing communication on buyers' behaviour. Rajendran et al., (2018) also confirmed that ecological packing plays an important role in improving consumer satisfaction and buying behaviour.

Kotler, (2011) article on “reinventing marketing to manage the environmental imperative” puts the burden of pro-environmental consumer behaviour (PECB) on both marketers and consumers. A typical PECB involves buying environmentally responsible products; products having a minimum environmental impact; products from firms with strong environmental reputations, or products whose production implies biodegradable, carbon neutral, or recycled inputs. The study revealed that purchase intention can be increased by providing more transparent information regarding ecological packaging (E. J. Lee et al., 2020).

Ecological packaging is a win-win for everyone. It is good for the environment, it can save businesses money, and it can attract environmentally conscious consumers. As the trend towards ecological packaging continues, it will become the norm in the future. The future of ecological packaging is bright. The trend towards ecological packaging is expected to continue as the cost of ecological packaging decreases and the availability of ecological packaging increases. As consumers become more educated about the benefits of ecological packaging, they will demand more sustainable products. Businesses will also see the benefits of ecological packaging, and they will look for ways to incorporate it into their products (Svanes et al., 2010).

Thus, the following hypothesis is proposed:

Hypothesis 3: Ecological packaging positively influences e-shoppers satisfaction.

2.1.4 Reverse Logistics

American Reverse Logistics Executive Committee defined reverse logistics (RL) as “the process of retrieving the value of the product or making it appropriately handled, the process of moving the product from the consumer to the source”. RL enables online shoppers to return products in compliance outlined in the return policy (E. J. Lee et al., 2020). Reverse logistics begins at the designated consumer return site and concludes at the place where the item is made available for sale or is disposed of (Risberg, 2022). Hafez et al., (2021) further elaborated RL as an important after-sale service/transaction (post-purchase) which is responsible for managing returns from customers. Cao et al., (2018) revealed that post-purchase logistic services have a strong positive correlation with customer satisfaction, which subsequently impacts their re-purchase buying behaviour. It is an integral part of customer service and includes ease of making returns, the availability of a clear return policy and return fees (Cao et al., 2018). The retailer can offer a range of return options to improve customer satisfaction. Customers generally prefer the quickest, cheapest and most convenient way to return an inappropriate or faulty product (Bernon et al., 2016).

Customer satisfaction has become a crucial element in the success of e-commerce. For a company to be competitive in today's market, management must leverage the reverse logistics process in place (Smith, 2005). Dimensions like (un) conditioned products, damaged products, duplicate products, exchange, delayed delivery and environmental concerns make RL inevitable in online business (Lamba et al., 2020). It has the potential to help in recovering and addressing service disruptions. It increases online shoppers buying confidence and customer satisfaction (Ezura & Jalil, 2019; Revindran et al., 2020). Further, it helps to generate revenue, build better customer relations and decrease the chances of customer dissatisfaction. It also provides companies the ability to recapture value that otherwise would have been unavailable or lost (Smith, 2005).

However, RL is a complex process involving business processes like the adoption of the right set of standards, engagement of marketing and operations team, contract with logistics assistance managers, quality check, disassembly or refurbishing and disposing of existing products (Lambert et al., 2011). There are instances when e-shoppers want to return a product, but there are very few methods to

communicate with online retail service providers. Autry et al., (2001) advised that companies who don't recognize the significance of an equipped RL mechanism often end up losing customers and might damage the business reputation.

Hypothesis 4: Reverse logistics positively influences e-shoppers satisfaction.

2.4.5 Response Mechanism

The growth of online retail has provided consumers with convenience, flexibility, and accessibility in their shopping experiences. Nonetheless, the success and failure of online retail are not solely determined by product offerings and website design. The response mechanism, which includes customer service, feedback channels, and complaint resolution processes, plays a critical role in shaping consumers' perceptions and influencing their buying behaviour. The response mechanism often influences the consumers' evaluation of the product and is treated as an augmented product (Li & Huang, 2020). Marketers' prompt and satisfactory response often reduces the chances of potential customer dissatisfaction (Emerson & Grimm, 1996).

Additionally, social media platforms enable customers to publicly raise their complaints. As a consequence, marketers had to be very proactive in dealing with such instances. When complaints are resolved effectively, satisfied customers appreciate and compliment the company. Moreover, social media interactions provide a bundle of opportunities to strengthen relationships with consumers (Prasad et al., 2017).

The artificial intelligence-induced live chat assistant interface has emerged as an increasingly popular means to provide real-time customer service. It is an effective tool for speedy and timely disposal of customers' queries and grievances (Adam et al., 2021).

S. Y. Kim & Lim, (2001) tried to investigate the relationship between consumers' perceived importance and satisfaction with e-shopping. The findings consistently emphasize the importance of prompt and efficient communication channels to address customer queries and concerns. The literature underscores that a positive shopping experience, achieved through effective response mechanisms, enhances customer satisfaction, loyalty, and trust. S. Kim & Stoel, (2004) also revealed that an effective response mechanism plays an important role in delivering high-quality customer service (Jiang et al., 2013), which in turn enhances customer satisfaction and subsequent loyalty among e-shoppers (Chang et al., 2009). On the contrary, any ignorance or delay in addressing consumers concerns may lead to customer dissatisfaction (Liu et al., 2008). Thus, the following hypothesis is proposed:

Hypothesis 5: Response mechanism positively influences e-shoppers satisfaction.

2.6.6 Customer satisfaction, loyalty, Word of Mouth and Re-purchase Intention

Kotler, P. dan Keller, (2016) defined "customer satisfaction as a consequence of the customer's experience during various purchasing stages". In terms of e-com, customer satisfaction represents the accumulative impressions of an e-retailer's performance (Chang & Chen, 2009). The concepts of customer satisfaction in online and offline shopping environments are quite different. It is generally assumed that online shopping platforms provide relatively additional information about the product in comparison to offline stores. This additional information allows customers to make an improved selection of products at lower prices and helps to deliver higher customer satisfaction than offline (Shankar et al., 2003). Zaid & Patwayati, (2021) expressly revealed that customer satisfaction is the most emphasised element in marketing that plays a decisive role in market dynamics. Customer satisfaction and loyalty are closely and positively related to marketers' profitability and market share (Anderson et al., 1994; W. Eugene Anderson, 1998). Zins, (2001) also supported that the more a customer is satisfied, the greater their loyalty and word of mouth (WoM). Here, the term word of mouth means informal communication between parties concerning the evaluation of goods and

services. It can be positive, neutral or negative. It was found that consumers are influenced significantly by WoM because they believe peer consumers more than vendors and marketers (Al-Adwan et al., 2020). Satisfied consumers are more likely to intend to provide positive WoM (Jones et al., 2019).

Though very challenging, businesses are often pressurised to understand customer value anticipation. It directly helps marketers to define, design and develop appropriate products for the potential targeted customers. The literature strongly suggests that customer value anticipation is critical for firms' success. It is the rule of thumb that acquiring new customers costs more than retaining current customers. The relationship between customer satisfaction, customer loyalty, word of mouth and re-purchase intention is found strong (Prasad et al., 2017). It further helps to establish long-term relationships with customers and suppliers (Nyer & Gopinath, 2005).

Interestingly, (Vredenburg & Wee, 1986) revealed that a majority of customer dissatisfaction is attributable to post-purchase interactions with retailers. Moreover, if consumers have to pay additional expenses for any post-purchase issue related to the product, the level of dissatisfaction is exacerbated and the customer engages twice as much as a satisfied customer, meaning dissatisfied customers lead to greater word of mouth (W. E. Anderson, 1998).

With the exponential growth of social media, shopping on these platforms has gained immense academic and industrial importance. It enabled a great opportunity for interaction between diversified stakeholders. Ryu & Park, (2020) observed that social media has a positive and significant influence on word of mouth and re-purchase intention.

Jones et al., (2019) concluded that repurchase intention behaviours are expected indicators of future purchases. Additionally, positive WOM intentions are a behavioural response that provides a way for a consumer to share a positive outcome with others. Khalifa & Liu, (2007) also report a positive relationship between online shopping experiences and online repurchase intention

These findings regarding the relationship between customer satisfaction, loyalty, WoM and re-purchase intention underscore the need for further investigation.

Hypothesis 6: Customer satisfaction positively influences e-shoppers Re-purchase Intention.

Hypothesis 7: Customer satisfaction positively influences e-shoppers customer loyalty.

Hypothesis 8: Customer satisfaction positively influences e-shoppers word of mouth.

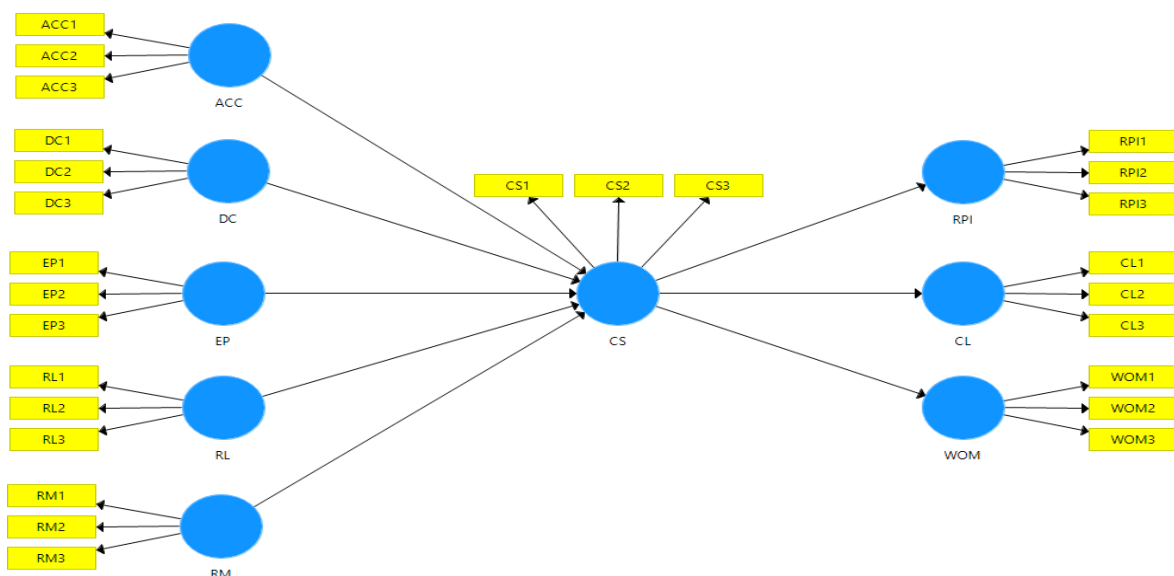


Figure 1: Conceptual Framework

3. RESEARCH METHODOLOGY

Data Collection

The multi-stage purposive sampling technique was utilised for the collection of relevant data. The study is based on the primary source of data collected through a structured questionnaire. Participants were provided with an e-questionnaire to maintain time and cost efficiency along with safety during the COVID-19 pandemic. The first part of the structured online questionnaire constitutes questions to reflect the socio-demographic profile of each respondent. Then, the next part consisted of five-point Likert scale statements to assess the level of agreement/disagreement of the respondents on each statement representing the research variables. A pilot study was conducted on 34 e-shoppers. Their responses were recorded and minor modifications were made according to their justifiable recommendations. Then, the online questionnaire was distributed to a sample of the targeted Indian population mainly from Mumbai and Delhi, as it better represents India. Respondents were informed of the confidentiality of their data and their voluntary involvement, and that data were only to be used for academic purposes. A total of 603 respondents participated in the study, and 516 responses were deemed valid and suitable for further processing. The sample size in the current study was found to meet the sample adequacy criteria provided by (Cohen, 1992)

Data analysis procedure:

Measurement model assessment

The analysis was conducted using the PLS-SEM method through the SmartPLS software, which applied assessment of both the measurement and structural models. The construct reliability and validity were assessed using several metrics including Cronbach's alpha, rho_A, and composite reliability (**Table 1**). Cronbach's alpha is a measure of internal consistency and reliability, which assesses how well the items in a construct or scale measure the same underlying construct. The values in the table range from 0.724 to 0.806, which are generally considered good to excellent levels of internal consistency. Rho_A is a newer reliability estimate that has been proposed as an alternative to Cronbach's alpha. It is similar in nature to alpha, but it has some advantages over alpha in that it can account for measurement errors and constructs not modelled in the analysis. The values in the table range from 0.731 to 0.808, which are also considered good to excellent levels of reliability. Composite reliability is another measure of internal consistency reliability that is calculated by averaging the squared correlations between the construct and its items. It is a more robust measure of reliability compared to Cronbach's alpha as it can account for item-specific error variance. The values in the table range from 0.837 to 0.886, which are again considered good to excellent levels of reliability. Cronbach's α and composite reliability were calculated, and the results indicated that they all met the threshold reliability criteria. The average variance extracted (AVE) is a measure of convergent validity, which assesses the degree to which the items in a construct or scale measure the same underlying construct. It is calculated by squaring the correlations between the construct and its items and then averaging them. The values in the table range from 0.633 to 0.721, which are generally considered acceptable to good levels of convergent validity. Thus, factor loadings were also calculated and the results showed that all factor loadings were above the minimum threshold of 0.60. The study also assessed the collinearity of the indicators using the Variance Inflation Factor (VIF), which measures the degree of multicollinearity between predictors in a regression model (**Table 2**). VIF values greater than 3.3 indicate possible multicollinearity issues. It was found that all VIF values are below 2, indicating no multicollinearity issues between the predictors in the regression model.

Based on the outcome of PLS-SEM, the artificial neural network (ANN) approach was used to reveal the relative importance of significant dimensions of marketing logistics.

Construct Reliability and Validity

Constructs	Cronbach's Alpha	rho_A	Composite Reliability	AVE
ACC	0.728	0.753	0.845	0.646
CL	0.726	0.731	0.843	0.642
CS	0.781	0.782	0.873	0.696
DC	0.806	0.808	0.886	0.721
EP	0.773	0.786	0.867	0.685
RL	0.728	0.735	0.846	0.647
RM	0.798	0.798	0.881	0.712
RPI	0.724	0.784	0.837	0.633
WOM	0.765	0.765	0.865	0.680

*Table 1: Construct Reliability and Validity***Variance Inflated Factor**

Indicators	VIF
ACC1	1.430
ACC2	1.368
ACC3	1.643
CL1	1.188
CL2	1.929
CL3	1.903
CS1	1.735
CS2	1.459
CS3	1.799
DC1	1.547
DC2	2.087
DC3	1.875
EP1	1.471
EP2	1.761
EP3	1.623
RL1	1.440
RL2	1.388
RL3	1.492
RM1	1.733
RM2	1.746
RM3	1.636
RPI1	1.347
RPI2	1.447
RPI3	1.518
WOM1	1.573
WOM2	1.764
WOM3	1.452

*Table 2: Variance Inflated Factor***Discriminant validity**

The Fornell-Larcker criterion and HTMT ratio are used to assess the discriminant validity of a set of constructs (Table 3). Fornell-Larcker criterion suggests that the square root of the AVE for each construct should be higher than its correlation with any other construct in the set. Looking at the matrix, it appears that the criterion is met for all constructs. The Heterotrait-Monotrait Ratio (HTMT) is another statistical measure used to assess discriminant validity, which is the extent to which constructs in a research study are different from each other. The HTMT value ranges from 0 to 1, where a value less than 0.9 is considered to indicate good discriminant validity. If the HTMT value is close to or greater than 1, it suggests that the two constructs are highly related and may not be distinct

from each other. In this study, the HTMT values for the majority of construct pairs are below 0.9, indicating good discriminant validity.

Fornell-Larcker criterion									
Constructs	ACC	CL	CS	DC	EP	RL	RM	RPI	WOM
ACC	0.804								
CL	0.550	0.801							
CS	0.493	0.557	0.834						
DC	0.402	0.412	0.330	0.849					
EP	0.456	0.464	0.457	0.309	0.828				
RL	0.594	0.540	0.525	0.420	0.399	0.804			
RM	0.427	0.501	0.617	0.358	0.437	0.439	0.844		
RPI	0.529	0.493	0.542	0.274	0.453	0.479	0.356	0.796	
WOM	0.525	0.664	0.614	0.385	0.458	0.516	0.699	0.469	0.825
Heterotrait-Monotrait (HTMT) Ratio Matrix									
ACC									
CL	0.737								
CS	0.642	0.720							
DC	0.523	0.526	0.415						
EP	0.623	0.606	0.578	0.398					
RL	0.807	0.724	0.691	0.547	0.531				
RM	0.542	0.632	0.781	0.444	0.547	0.568			
RPI	0.721	0.659	0.670	0.359	0.611	0.654	0.410		
WOM	0.685	0.871	0.794	0.492	0.588	0.686	0.895	0.588	

Table 3: Discriminant Validity

Structural model assessment

The study used a bootstrapping technique with 5000 sub-samples to assess the significance of the hypothesized paths and calculated β-coefficients, t-values, and p-values to confirm the results. A total of seven out of eight hypotheses were supported (**Table 5**). The study used the Coefficient of Determination (R²) to determine the overall model strength and found that the structural model in the study could explain around 50% variance of customer satisfaction and approximately 40% variance of word of mouth. Similarly, around 30% variance of the repurchase intention and customer loyalty was explained by the structural model (**Table 4**). Overall, the R square values suggest that the model has moderate explanatory power.

Outcome Variable	R Square	R Square Adjusted
CL	0.310	0.309
CS	0.490	0.485
RPI	0.294	0.292
WOM	0.376	0.375

Table 4: Model Strength

H	Path	Beta	SD	T Statistics	P-Values	Support
H1	ACC -> CS	0.129	0.045	2.859	0.004	YES
H2	DC -> CS	-0.001	0.042	0.018	0.985	NO
H3	EP -> CS	0.133	0.045	2.963	0.003	YES
H4	RL -> CS	0.215	0.048	4.487	0.000	YES
H5	RM -> CS	0.409	0.036	11.257	0.000	YES
H6	CS -> RPI	0.542	0.035	15.275	0.000	YES
H7	CS -> CL	0.557	0.034	16.315	0.000	YES
H8	CS -> WOM	0.614	0.036	17.237	0.000	YES

Table 5: Path Analysis

4. DISCUSSION

Through current research, we intend to provide a research framework that comprehends marketing logistics dimensions determining customers' satisfaction. We consider the growing importance of sustainable practices by business houses and their impact on customer satisfaction. We also take into account the effect of customer satisfaction on customers' repurchase intention, word of mouth, and loyalty. The result of the current study established that other than delivery charges, customers' satisfaction is significantly associated with all the predictors (accessibility, ecological packaging, reverse logistics, and responsiveness mechanism). Consequently, H1 ($\beta=0.129$), H3 ($\beta=0.133$), H4 ($\beta=0.215$), and H5 ($\beta=-0.409$) are supported, whereas H2 ($\beta=-0.001$) is not supported. A significant positive relationship between accessibility and customer satisfaction is consistent with prior studies (Maat & Konings, 2018; Mofokeng, 2021; Sajitha Parveen, 2019). It implies that the products must be deliverable at the customers' desired or preferred location. An insignificant relationship between delivery charges and customer satisfaction is contradictory to previous findings which otherwise demonstrate a negative relationship between the two (Jones et al., 2019; Okamoto, 2016; Rajendran et al., 2018; Sajitha Parveen, 2019). The finding implies that customers don't mind paying a delivery charge if the products are delivered at the customers' specified location by the desired time. Next, a significant positive relationship between ecological packaging and customer satisfaction aligns with prior studies (E. J. Lee et al., 2020; Rajendran et al., 2018; Svanes et al., 2010). It signifies the importance of eco-friendly methods initiated by e-commerce platforms in the distribution of products. Environmentally conscious consumers appreciate such initiatives that align with their ecological values and consequently enhance their satisfaction. Further, a significant positive relationship between reverse logistics and customer satisfaction finds support in previous studies (Bernon et al., 2016; Hafez et al., 2021; E. J. Lee et al., 2020; Revindran et al., 2020; Risberg, 2022). It implies that an efficient and seamless return process is crucial for e-shoppers' satisfaction. When customers need to return a product, a well-designed reverse logistics system ensures a hassle-free experience. Effective management of returns and repairs can also help reduce waste and minimize the environmental impact. Implementing practices such as refurbishment, reselling returned items, or recycling materials contributes to a circular economy and resonates with environmentally conscious e-shoppers. Finally, responsiveness mechanism and customer satisfaction are positively associated, similar to prior studies (Adam et al., 2021; Jiang et al., 2013; Li & Huang, 2020). It implies that e-shoppers expect timely and responsive customer support when they encounter issues or have questions. Quick response times and efficient resolution of problems contribute to customer satisfaction. Implementing systems and processes to ensure prompt customer support, such as live chat, email, or phone support, to reduce customer dissonance and enhance their overall experience.

The outcome of the hypothesis testing in the current study demonstrated that customer satisfaction is

positively associated with repurchase intention, customer loyalty, and word of mouth. Therefore, H6 ($\beta=0.542$), H7 ($\beta=0.557$), and H8 ($\beta=0.614$) were supported. The positive relationship of customer satisfaction with repurchase intention, customer loyalty, and word of mouth is consistent with prior studies (Al-Adwan et al., 2020; Gounaris et al., 2010; Jain et al., 2017; Jones et al., 2019; Khalaf Ahmad, 2012; Khalifa & Liu, 2007; Micu et al., 2019; Mofokeng, 2021; Paul et al., 2016; Shankar et al., 2003). It implies that customer satisfaction serves as a foundation for building strong customer relationships, fostering loyalty, and generating positive word of mouth. By consistently meeting and exceeding customer expectations, businesses can reap the benefits of increased customer retention, improved brand image, reduced marketing costs, and a competitive advantage in the market. Satisfied customers are expected to stay with the organisation, reducing the need for extensive marketing and advertising efforts to attract new customers. Additionally, loyal customers tend to have higher lifetime values, meaning they spend more on their customer journey, which further justifies the importance of customer satisfaction in driving profitability.

Artificial Neural Network (ANN) Analysis

Significant predictors of customer satisfaction identified through hypotheses development and testing were modelled as input neurons to perform the ANN analysis. Consistent with prior literature on ANN modelling, 70% data were used for training the model and 30% were used for testing purposes. The average RMSE value was obtained by repeating the ANN cases ten times to avoid prediction errors in the modelling procedure. The average RMSE for the training and testing model was 0.105 and 0.106 respectively, suggesting a good model fitness of the ANN model (**Table 6**). Consequently, sensitivity analysis was performed to observe the relative importance of predictors. Response mechanism emerged as the most important factor, closely followed by reverse logistics. Accessibility obtained the third rank, whereas ecological packaging was the least important factor (**Table 7**). The result suggests that e-retailers should prioritize smooth and prompt response mechanisms for consumer grievance redressal. They should also emphasize efficient reverse logistics provisions. E-retailers are suggested to assign the resources available to significant factors according to their relative importance. They should divert unnecessary resources from less important to more important factors mentioned above.

Dependent- Customer Satisfaction						
	Training			Testing		
Case	N	SSE	RMSE	N	SSE	RMSE
ANN 1	343	3.818	0.106	173	1.962	0.106
ANN 2	367	4.203	0.107	149	1.481	0.100
ANN 3	349	3.919	0.106	167	1.744	0.102
ANN 4	352	4.183	0.109	164	1.735	0.103
ANN 5	358	3.819	0.103	158	1.843	0.108
ANN 6	370	3.76	0.101	146	1.915	0.115
ANN 7	354	4.049	0.107	162	1.615	0.100
ANN 8	362	4.012	0.105	154	1.778	0.107
ANN 9	367	4.084	0.105	149	1.966	0.115
ANN 10	363	4.072	0.106	153	1.474	0.098
Mean			0.106			0.105
S.D			0.0021			0.0056

Table 6: ANN Model RMSE

Case	ACC	EP	RL	RM
ANN1	33.9%	45.6%	67.1%	100.0%
ANN2	39.6%	30.0%	61.1%	100.0%
ANN3	64.5%	34.5%	95.9%	100.0%
ANN4	44.8%	56.3%	72.8%	100.0%
ANN5	53.4%	33.5%	100.0%	99.6%
ANN6	31.2%	49.0%	86.2%	100.0%
ANN7	42.7%	22.3%	68.9%	100.0%
ANN8	41.1%	37.2%	58.3%	100.0%
ANN9	35.0%	21.9%	56.9%	100.0%
ANN10	44.8%	42.1%	100.0%	85.5%
Avg. Imp.	43.11%	37.24%	76.71%	98.51%
Norm. Imp.	43.76%	37.80%	77.87%	100.00%

Table 7: ANN Sensitivity Analysis

Implications

The outcome of the current study has several important implications for managers of e-retailing businesses. The significant positive associations of accessibility, ecological packaging, reverse logistics, and response mechanism with customer satisfaction provide important insights from the managerial perspective. By prioritizing accessibility, e-retailers can create a positive impression and encourage repeat visits. If e-shoppers encounter barriers or difficulties receiving a product, they may become frustrated and abandon their purchase. The physical delivery of products across locations plays a crucial role in e-shoppers' satisfaction. E-retailers should seek to establish efficient logistics and shipping processes to ensure prompt and reliable deliveries across different locations. This can be achieved through partnerships with reputable logistics providers, effective inventory management, and streamlined order processing.

Ecological packaging can enhance the perceived value of a product in the eyes of e-shoppers. When packaging aligns with sustainable values and demonstrates a thoughtful approach to environmental impact, customers may associate it with higher quality and ethical standards. By using ecological packaging, e-retailers demonstrate their commitment to sustainability and reduce their carbon footprint. Ecological packaging aims to minimize waste generation and promote recycling. By using materials that are easily recyclable or biodegradable, e-retailers can help reduce the amount of packaging waste that ends up in landfills. This proactive approach to waste management resonates with e-shoppers who prioritize sustainable practices.

Effective management of returns and repairs can also help reduce waste and minimize the environmental impact. Implementing practices such as refurbishment, reselling returned items, or recycling materials contributes to a circular economy and resonates with environmentally conscious e-shoppers. Prioritizing sustainable reverse logistics practices can enhance customer satisfaction among eco-minded customers. Reverse logistics also plays a key role in addressing issues related to product defects, damages, or incorrect shipments. Clear return policies, easy-to-follow instructions, and pre-paid return labels simplify the process. Streamlining the return process reduces customer frustration, enhances satisfaction, and encourages future purchases. E-shoppers appreciate transparency regarding the status of their returns, repairs, or replacements. Providing clear information on return tracking, processing times, and issue resolution updates enhances customer satisfaction. Timely communication reduces uncertainty and keeps customers informed throughout the reverse logistics process. In cases where customers require exchanges or replacements, a convenient and customer-centric approach is essential. Offering time-bound multiple options, such as exchanging products through mail or in-store, providing replacement products before the return is received, or offering alternative solutions like store credit, enhances customer satisfaction. Reverse logistics also involves managing refunds for returned products. Fair and flexible refund policies are crucial for e-shoppers' satisfaction. E-retailers

should have clear guidelines on refund eligibility, processing times, and refund methods. Offering flexible options such as refunds to the original payment method or store credit provides customers with choice and enhances satisfaction. Reverse logistics can provide valuable insights into product quality issues, customer feedback, and overall customer experience. By analyzing patterns in returns, customer complaints and customer reviews, e-retailers can identify areas for improvement. Taking corrective actions based on these insights not only reduces future returns and customer dissonance but also enhances product quality and overall customer experience, leading to higher satisfaction levels.

The outcome further emphasizes that effective responsiveness management and communication are vital for customer satisfaction. Clear and concise communication helps customers understand the status of their inquiries, the steps being taken to resolve their issues, and any necessary follow-up actions. Providing regular updates and ensuring that customers are informed throughout the process builds trust and reduces frustration. Tailoring customer interactions based on individual customer concerns, preferences, and purchase history can significantly impact satisfaction. E-retailers can use customer relationship management (CRM) systems or customer data analytics to provide personalized recommendations, solutions, and support. Personalized interactions create a sense of care and make customers feel valued, leading to higher satisfaction levels. Acknowledging and addressing customer feedback demonstrates attentiveness and a commitment to continuous improvement. In cases where customer issues cannot be resolved immediately, having a streamlined escalation process is crucial. E-shoppers appreciate clear escalation paths and knowing how their concerns will be handled when frontline support cannot provide an immediate solution. An efficient escalation process ensures that customer concerns are addressed by the appropriate teams or individuals.

Directions for future research

Online shopping has brought immense changes in e-shoppers buying behaviour (Selvaraju & Karthikeyan, 2016). COVID-19 has further exaggerated a tendency to shop online rather than in brick-and-mortar stores (Lu et al., 2022). As a consequence, we need new theories, methods and paradigms to carry out research studies in the post-pandemic era to analyse the new processes, patterns and problems. Following prior models of ECT (Chou et al., 2010; J. Lee & Kim, 2020; Oliver, 2013; Tsao, 2013), constructing new models is suggested for prospective studies. In this context, research may be carried out to assess the other dimensions influencing the buying behaviour of e-shoppers. Such dimensions may drastically vary across different cultures, standards of living, education levels, family size, residential locations, income etc. Identifying and analysing such dimensions may enable e-retailers to formulate customer-oriented business strategies.

Due to financial and time constraints, representative data was collected from Mumbai and Delhi. Later, more geographical compositions can be considered for a better representation of India. Additionally, the study is concentrated in India, hence it is advised to execute the present study in other countries for generalization. Moreover, a comparison between developing and developed can pave the way for a better understanding of the role of the growth and development status of an economy on e-shoppers buying behaviour.

Another limitation of this study is that is partly due to the purposive sampling method that was chosen for reasons of accessibility and cost. However, this sampling method has limitations in terms of generalising results. Future studies may consider employing probability sampling techniques such as simple random sampling, stratified random sampling, or cluster sampling.

5. CONCLUSION

The scope and scale of online retail is intended to increase. By focusing on the pertinent dimensions of COVID-19, internet penetration, and acceptance of social media usage, this study adds significantly to the existing literature on marketing logistics and consumer behaviour in the online shopping environment. It incorporates diversified marketing logistics dimensions using a PLS-SEM study that shows accessibility, ecological packaging, response mechanism and reverse logistics are significant determinants of e-shoppers satisfaction, which in turn determines purchase behaviour

(word-of-mouth, loyalty and re-purchase intention). On the contrary, delivery charges exhibited no relation with customer satisfaction. Further, the ANN sensitivity outcome reveals that the response mechanism is the most important dimension of marketing logistics, followed by reverse logistics, accessibility and ecological packaging. The study also highlights the increasing significance of social media and sustainability in the dynamic business environment.

This study provides crucial insight for both e-retailers/policymakers and academicians as it provides a better understanding of the diversified facet of the virtual market. Marketers/ policymakers can utilize the findings while defining, designing and developing marketing strategies for e-marketplaces. It can help marketers open new business opportunities for e-retailers and ensure better customer service, customer satisfaction and long-term relations with customers. Furthermore, the study reveals an enriched literature for academicians to envision further studies in the marketing logistics and consumer behaviour domain.

Reference

- [1] Adam, M., Wessel, M., & Benlian, A. (2021). AI-based chatbots in customer service and their effects on user compliance. *Electronic Markets*, 31(2), 427–445. <https://doi.org/10.1007/s12525-020-00414-7>
- [2] Al-Adwan, A. S., Kokash, H., Ahmad Al, A., Alaa, A., & Husam, Y. (2020). Building customer loyalty in online shopping: the role of online trust, online satisfaction and electronic word of mouth Husam Kokash and Ahmad Al Adwan Alaa Alhorani Husam Yaseen. *International Journal of Electronic Marketing and Retailing*, 11(3), 278–306.
- [3] Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53. <https://doi.org/10.2307/1252310>
- [4] Anderson, W. E. (1998). 226.-Customer satisfaction an Word of Mouth_anderson1998 (1).
- [5] Autry, C. W., Daugherty, P. J., & Glenn Richey, R. (2001). The challenge of reverse logistics in catalog retailing. *International Journal of Physical Distribution and Logistics Management*, 31(1), 26–37. <https://doi.org/10.1108/09600030110366384>
- [6] Barcik, R., & Jakubiec, M. (2013). Marketing Logistics. *Acta Academica Karviniensia*, 13(4), 5–12. <https://doi.org/10.25142/aak.2013.058>
- [7] Bernon, M., Cullen, J., & Gorst, J. (2016). Online retail returns management: Integration within an omni-channel distribution context. *International Journal of Physical Distribution and Logistics Management*, 46(6–7), 584–605. <https://doi.org/10.1108/IJPDLM-01-2015-0010>
- [8] Brynjolfsson, E., & Smith, M. D. (2005). The Great Equalizer? Consumer Choice Behavior at Internet Shopbots. *SSRN Electronic Journal*, July. <https://doi.org/10.2139/ssrn.290323>
- [9] Cao, Y., Ajjan, H., & Hong, P. (2018). Post-purchase shipping and customer service experiences in online shopping and their impact on customer satisfaction: An empirical study with comparison. *Asia Pacific Journal of Marketing and Logistics*, 30(2), 400–416. <https://doi.org/10.1108/APJML-04-2017-0071>
- [10] Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers. *Journal of Business Ethics*, 97(1), 139–158. <https://doi.org/10.1007/s10551-010-0501-6>
- [11] Chang, H. H., & Chen, S. W. (2009). Consumer perception of interface quality, security, and loyalty in electronic commerce. *Information and Management*, 46(7), 411–417. <https://doi.org/10.1016/j.im.2009.08.002>
- [12] Chang, H. H., Wang, Y. H., & Yang, W. Y. (2009). The impact of e-service quality, customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value. *Total Quality Management and Business Excellence*, 20(4), 423–443. <https://doi.org/10.1080/14783360902781923>
- [13] Cherrett, T., Dickinson, J., McLeod, F., Sit, J., Bailey, G., & Whittle, G. (2017). Logistics

- impacts of student online shopping – Evaluating delivery consolidation to halls of residence. *Transportation Research Part C: Emerging Technologies*, 78, 111–128. <https://doi.org/10.1016/j.trc.2017.02.021>
- [14] Chou, S. W., Min, H. T., Chang, Y. C., & Lin, C. T. (2010). Understanding continuance intention of knowledge creation using extended expectation-confirmation theory: An empirical study of Taiwan and China online communities. *Behaviour and Information Technology*, 29(6), 557–570. <https://doi.org/10.1080/01449290903401986>
- [15] Cohen, J. (1992). A Power Primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/https://doi.org/10.1037/0033-2909.112.1.155>
- [16] Drobiazgiewicz, J. (2018). Marketing logistics management in e-retail – the essence and selected practical aspects. *European Journal of Service Management*, 27, 149–155. <https://doi.org/10.18276/ejasm.2018.27/2-18>
- [17] Eid, M. I. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, 12(1), 78–93.
- [18] Emerson, C. J., & Grimm, C. M. (1996). Logistics and marketing components of customer service: An empirical test of the Mentzer, Gomes and Krapfel model. *International Journal of Physical Distribution & Logistics Management*, 26(8), 29–42. <https://doi.org/10.1108/09600039610128258>
- [19] Ezura, E., & Jalil, A. (2019). Customer Satisfaction and Reverse Logistics in E-Commerce: the Case of Klang Valley. *Proceedings of the 9th International Conference on Operations and Supply Chain Management, Vietnam, 2019*, 1–6. https://www.journal.oscm-forum.org/journal/proceeding/conf_paper/customer-satisfaction-and-reverse-logistics-in-e-commerce-the-case-of-klang-valley
- [20] Gao, X., Shi, X., Guo, H., & Liu, Y. (2020). To buy or not buy food online: The impact of the COVID-19 epidemic on the adoption of e-commerce in China. *PLoS ONE*, 15(8 August), 1–14. <https://doi.org/10.1371/journal.pone.0237900>
- [21] Gounaris, S., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *Journal of Services Marketing*, 24(2), 142–156. <https://doi.org/10.1108/08876041011031118>
- [22] Grimmer, M., Kilburn, A. P., & Miles, M. P. (2016). The effect of purchase situation on realized pro-environmental consumer behavior. *Journal of Business Research*, 69(5), 1582–1586. <https://doi.org/10.1016/j.jbusres.2015.10.021>
- [23] Hafez, L., Elakkad, E., & Gamil, M. (2021). A Study on the Impact of Logistics Service Quality on the Satisfaction and Loyalty of E-Shoppers in Egypt. *Open Journal of Business and Management*, 09(05), 2464–2478. <https://doi.org/10.4236/ojbm.2021.95133>
- [24] Hidayat, A., Saifullah, M., & Ishak, A. (2016). Determinants of satisfaction, trust, and loyalty of Indonesian e-commerce customer. *International Journal of Economics and Management*, 10(SpecialIssue1), 151–166.
- [25] Jain, N. K., Gajjar, H., Shah, B. J., & Sadh, A. (2015). A conceptual framework for measuring E-fulfillment dimensions: A consumer perspective. *Journal of Internet Commerce*, 14(3), 363–383. <https://doi.org/10.1080/15332861.2015.1080056>
- [26] Jain, N. K., Gajjar, H., Shah, B. J., & Sadh, A. (2017). E-fulfillment dimensions and its influence on customers in e-tailing: a critical review. *Asia Pacific Journal of Marketing and Logistics*, 29(2), 347–369. <https://doi.org/10.1108/APJML-11-2015-0167>
- [27] Jasin, M. (2022). The Role of Social Media Marketing and Electronic Word of Mouth on Brand Image and Purchase Intention of SMEs Product. *Journal of Information Systems and Management*, 1(4), 54–62. <https://jisma.org>
- [28] Jiang, L. (Alice), Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191–214. <https://doi.org/10.1108/09564231311323962>
- [29] Jones, A. L., Griffis, S. E., Schwieterman, M. A., & Daugherty, P. J. (2019). Examining the impact of shipping charge fairness on consumer satisfaction and behavior. *Transportation Journal*, 58(2), 101–125. <https://doi.org/10.5325/transportationj.58.2.0101>

- [30] Kawa, A., & Światowiec-Szczepańska, J. (2021). Logistics as a value in e-commerce and its influence on satisfaction in industries: a multilevel analysis. *Journal of Business and Industrial Marketing*, 36(13), 220–235. <https://doi.org/10.1108/JBIM-09-2020-0429>
- [31] Khalaf Ahmad, A. M. (2012). Attractiveness Factors Influencing Shoppers' Satisfaction, Loyalty, and Word of Mouth: An Empirical Investigation of Saudi Arabia Shopping Malls. *International Journal of Business Administration*, 3(6), 101–112. <https://doi.org/10.5430/ijba.v3n6p101>
- [32] Khalifa, M., & Liu, V. (2007). Online consumer retention: Contingent effects of online shopping habit and online shopping experience. *European Journal of Information Systems*, 16(6), 780–792. <https://doi.org/10.1057/palgrave.ejis.3000711>
- [33] Kharbanda, S., & Singh, N. P. (2022). Factors Determining Sustainable Consumption Behaviour: A Guiding Framework from Literature. *Purushartha*, 15(1), 1–22. <https://doi.org/10.21844/16202115101>
- [34] Kim, M. J., Chung, N., & Lee, C. K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, 32(2), 256–265. <https://doi.org/10.1016/j.tourman.2010.01.011>
- [35] Kim, S., & Stoel, L. (2004). Apparel retailers: Website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, 11(2), 109–117. [https://doi.org/10.1016/S0969-6989\(03\)00010-9](https://doi.org/10.1016/S0969-6989(03)00010-9)
- [36] Kim, S. Y., & Lim, Y. J. (2001). Consumers' Perceived Importance of and Satisfaction with Internet Shopping. *Electronic Markets*, 11(3), 148–154. <https://doi.org/10.1080/101967801681007988>
- [37] Kim, Y., & Peterson, R. A. (2017). A Meta-analysis of Online Trust Relationships in E-commerce. *Journal of Interactive Marketing*, 38, 44–54. <https://doi.org/10.1016/j.intmar.2017.01.001>
- [38] Kletzan, D., Köppl, A., Kratena, K., Schleicher, S., & Wüger, M. (2006). Towards sustainable consumption: Economic modelling of mobility and heating for Austria. *Ecological Economics*, 57(4), 608–626. <https://doi.org/10.1016/j.ecolecon.2005.05.014>
- [39] Kotler, P. dan Keller, K. L. (2016). Marketing Management. In *Soldering & Surface Mount Technology*.
- [40] Kotler, P. (2011). Reinventing environmental marketing. *Journal of Marketing*, 25(July), 132–135.
- [41] Lamba, D., Yadav, D. K., Barve, A., & Panda, G. (2020). Prioritizing barriers in reverse logistics of E-commerce supply chain using fuzzy-analytic hierarchy process. *Electronic Commerce Research*, 20(2), 381–403. <https://doi.org/10.1007/s10660-019-09333-y>
- [42] Lambert, S., Riopel, D., & Abdul-Kader, W. (2011). A reverse logistics decisions conceptual framework. *Computers and Industrial Engineering*, 61(3), 561–581. <https://doi.org/10.1016/j.cie.2011.04.012>
- [43] Lee, E. J., Bae, J., & Kim, K. H. (2020). The effect of environmental cues on the purchase intention of sustainable products. *Journal of Business Research*, 120(January), 425–433. <https://doi.org/10.1016/j.jbusres.2019.10.048>
- [44] Lee, J., & Kim, Y. K. (2020). Online Reviews of Restaurants: Expectation-Confirmation Theory. *Journal of Quality Assurance in Hospitality and Tourism*, 21(5), 582–599. <https://doi.org/10.1080/1528008X.2020.1712308>
- [45] Li, M., & Huang, P. (2020). Assessing the product review helpfulness: Affective-Cognitive evaluation and the moderating effect of feedback mechanism. *Information and Management*, 57(7), 103359. <https://doi.org/10.1016/j.im.2020.103359>
- [46] Liu, X., He, M., Gao, F., & Xie, P. (2008). An Empirical Study of Online Shopping Customer Satisfaction in China: A Holistic Perspective", *International Journal of Retail & Distribution Management*, Vol. 36 Issue: 11, pp.919-940. *International Journal of Retail & Distribution Management*, 36(11), 919–940. <https://doi.org/10.1108/09590550810911683>
- [47] Lu, M., Wang, R., & Li, P. (2022). Comparative analysis of online fresh food shopping behavior during normal and COVID-19 crisis periods. *British Food Journal*, 124(3), 968–

986. <https://doi.org/10.1108/BFJ-09-2020-0849>
- [48] Maat, K., & Konings, R. (2018). Accessibility or innovation? Store shopping trips versus online shopping. *Transportation Research Record*, 2672(50), 1–10. <https://doi.org/10.1177/0361198118794044>
- [49] Meidutė-Kavaliauskienė, I., Aranskis, A., & Litvinenko, M. (2014). Consumer Satisfaction with the Quality of Logistics Services. *Procedia - Social and Behavioral Sciences*, 110(2012), 330–340. <https://doi.org/10.1016/j.sbspro.2013.12.877>
- [50] Mentzer, J. T., Gomes, R., & Krapfel, R. E. (1989). Physical distribution service: A fundamental marketing concept? *Journal of the Academy of Marketing Science*, 17(1), 53–62. <https://doi.org/10.1007/BF02726354>
- [51] Micu, A. E., Bouzaabia, O., Bouzaabia, R., Micu, A., & Capatina, A. (2019). Online customer experience in e-retailing: implications for web entrepreneurship. *International Entrepreneurship and Management Journal*, 15(2), 651–675. <https://doi.org/10.1007/s11365-019-00564-x>
- [52] Mishra, A. K., Bansal, R., Maurya, P. K., Kar, S. K., & Bakshi, P. K. (2022). Predicting the antecedents of consumers' intention toward purchase of mutual funds: A hybrid PLS-SEM-neural network approach. *International Journal of Consumer Studies*, February, 1–25. <https://doi.org/10.1111/ijcs.12850>
- [53] Mofokeng, T. E. (2021). The impact of online shopping attributes on customer satisfaction and loyalty: Moderating effects of e-commerce experience. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2021.1968206>
- [54] Murfield, M., Boone, C. A., Rutner, P., & Thomas, R. (2017). Investigating logistics service quality in omni-channel retailing. *International Journal of Physical Distribution and Logistics Management*, 47(4), 263–296. <https://doi.org/10.1108/IJPDLM-06-2016-0161>
- [55] Nicholls, A., & Watson, A. (2005). Implementing e-value strategies in UK retailing. *International Journal of Retail and Distribution Management*, 33(6), 426–443. <https://doi.org/10.1108/09590550510600852>
- [56] Noble Kennedy, E., & Kundu, G. K. (2018). Influence of Delivery Charges and Time on Online Purchase Decision. *International Journal of Pure and Applied Mathematics*, 118(18), 4393–4404. <http://www.ijpam.eu>
- [57] Nyer, P. U., & Gopinath, M. (2005). Effects of complaining versus negative word of mouth on subsequent changes in satisfaction: The role of public commitment. *Psychology and Marketing*, 22(12), 937–953. <https://doi.org/10.1002/mar.20092>
- [58] Okamoto, T. (2016). Different perceptions of online shopping concerning product availability, consumer location, and experience. *International Journal of Web Engineering and Technology*, 11(3), 233–258. <https://doi.org/10.1504/IJWET.2016.079038>
- [59] Oliver, R. L. (2013). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 66(1997), 37–39.
- [60] Paul, J., Sankaranarayanan, K. G., & Mekoth, N. (2016). Consumer satisfaction in retail stores: theory and implications. *International Journal of Consumer Studies*, 40(6), 635–642. <https://doi.org/10.1111/ijcs.12279>
- [61] Petrescu, M. (2011). Online price dispersion - more than imperfect information. *Journal of Product and Brand Management*, 20(7), 541–548. <https://doi.org/10.1108/10610421111181840>
- [62] Prasad, S., Gupta, I. C., & Totala, N. K. (2017). Social media usage, electronic word of mouth and purchase-decision involvement. In *Asia-Pacific Journal of Business Administration* (Vol. 9, Issue 2). <https://doi.org/10.1108/APJBA-06-2016-0063>
- [63] Rabinovich, E., & Bailey, J. P. (2004). Physical distribution service quality in Internet retailing: Service pricing, transaction attributes, and firm attributes. *Journal of Operations Management*, 21(6), 651–672. <https://doi.org/10.1016/j.jom.2003.11.004>
- [64] Rahi, S., Othman Mansour, M. M., Alharafsheh, M., & Alghizzawi, M. (2021). The post-adoption behavior of internet banking users through the eyes of self-determination theory and expectation confirmation model. *Journal of Enterprise Information Management*, 34(6),

- 1874–1892. <https://doi.org/10.1108/JEIM-04-2020-0156>
- [65] Rajendran, S. D., Wahab, S. N., Ling, Y. W., & Yun, L. S. (2018). The impact of logistics services on the e-shoppers' satisfaction. *International Journal of Supply Chain Management*, 7(5), 461–469.
- [66] Revindran, M., Ragen, P. N. K., & Mahmud, B. (2020). A study on Logistics Service Quality in E-Retailing Amongst Online Shoppers in Kuala Lumpur. *IOP Conference Series: Materials Science and Engineering*, 780(6). <https://doi.org/10.1088/1757-899X/780/6/062016>
- [67] Risberg, A. (2022). A systematic literature review on e-commerce logistics: towards an e-commerce and omni-channel decision framework. *International Review of Retail, Distribution and Consumer Research*, 00(00), 1–25. <https://doi.org/10.1080/09593969.2022.2089903>
- [68] Ryu, S., & Park, J. K. (2020). The effects of benefit-driven commitment on usage of social media for shopping and positive word-of-mouth. *Journal of Retailing and Consumer Services*, 55(January), 102094. <https://doi.org/10.1016/j.jretconser.2020.102094>
- [69] Sajitha Parveen, K. P. (2019). *Factors Influencing Customer Satisfaction Towards Online Shopping*. August. <http://www.pontejournal.net/mainpanel/abstract.php?TOKEN=gRkgF5411G&PID=PJ-O39N3>
- [70] Selvaraju, K., & Karthikeyan, P. (2016). Impact on E-Commerce towards Online Shopping and Customer Buying Behavior. *Asian Journal of Research in Social Sciences and Humanities*, 6(7), 1260. <https://doi.org/10.5958/2249-7315.2016.00511.6>
- [71] Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing*, 20(2), 153–175. [https://doi.org/10.1016/S0167-8116\(03\)00016-8](https://doi.org/10.1016/S0167-8116(03)00016-8)
- [72] Smith, A. D. (2005). Reverse logistics programs: Gauging their effects on CRM and online behavior. *Vine*, 35(3), 166–181. <https://doi.org/10.1108/03055720510634216>
- [73] Svanes, E., Void, M., Møller, H., Pettersen, M. K., Larsen, H., & Hanssen, O. J. (2010). Sustainable packaging design: A holistic methodology for packaging design. *Packaging Technology and Science*, 23(3), 161–175. <https://doi.org/10.1002/pts.887>
- [74] Swapana, M., & Padmavathy, C. (2017). Factors Influencing Online shopping Experience- A Conceptual Model and Implications. *Sona Global Management Review*, 11(1), 18–23. <https://www.sonamgmt.org/journal/previous-issues/june-2017/factors-influencing-online-shopping.pdf>
- [75] Tsao, W. Y. (2013). Application of Expectation Confirmation Theory to Consumers' Impulsive Purchase Behavior for Products Promoted by Showgirls in Exhibits. *Journal of Promotion Management*, 19(3), 283–298. <https://doi.org/10.1080/10496491.2013.770811>
- [76] Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542–553. <https://doi.org/10.1016/j.ecolecon.2007.03.007>
- [77] Vredenburg, H., & Wee, C. H. (1986). The role of customer service in determining customer satisfaction. *Journal of the Academy of Marketing Science*, 14(2), 17–26. <https://doi.org/10.1007/BF02722153>
- [78] William, Y., Kumju, H., Seonaidh, M., & Caroline, J. O. (2009). Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*, 18(March 2009), 20–31. <http://dx.doi.org/10.1002/sd.394>
- [79] Xing, Y., Grant, D. B., McKinnon, A. C., & Fernie, J. (2011). The interface between retailers and logistics service providers in the online market. *European Journal of Marketing*, 45(3), 334–357. <https://doi.org/10.1108/03090561111107221>
- [80] Zaid, S., & Patwayati, P. (2021). Impact of Customer Experience and Customer Engagement on Satisfaction and Loyalty: A Case Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(4), 983–992. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0983>
- [81] Ziaullah, M., Feng, Y., & Akhter, S. N. (2014). E-Loyalty: The influence of product quality and delivery services on e-trust and e-satisfaction in China. *International Journal of*

Advancements in Research & Technology, 3(10), 20–31.

- [82] Zins, A. H. (2001). Relative attitudes and commitment in customer loyalty models. *International Journal of Service Industry Management*, 12(3), 269–294. <https://doi.org/10.1108/eum000000005521>