REVIEW ARTICLE

TO DETERMINE THE SIGNIFICANCE OF INVENTORY MANAGEMENT AND CUSTOMER SATISFACTION IN THE UK E-COMMERCE INDUSTRY: A SECONDARY QUALITATIVE APPROACH

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Abstract: The study focused on determining the significance of inventory management and customer satisfaction in UK e-commerce industry by using secondary qualitative method of data collection. For this purpose five articles were selected based on defined inclusion and exclusion criteria. From the selected articles it was found that effective inventory management based on appropriate forecasting, supplier relationship and integration has the potential to increase customer satisfaction by enhancing the quality of services and shorten waiting times. On the other hand, inappropriate forecasting and predictions results in shortage of inventory and delays in deliveries leading to customer dissatisfaction. The study highlights the strategic role of data-driven inventory systems and customer-centric approaches in maintaining service reliability and competitive advantage. It concludes with practical recommendations for UK e-commerce businesses, including the adoption of advanced inventory technologies, stronger supplier relationships, and regular performance audits.

Keywords: *Inventory management and Customer satisfaction, Inventory management practice in e-commerce, Customer satisfaction with e-commerce, E-commerce industry and Inventory management practices and Significance of inventory management and Customer satisfaction in e-commerce industry.*

INTRODUCTION

Electronic commerce (e-commerce) has gained momentum and growth in recent years, especially after the pandemic. E-commerce is a mode of doing business through an electronic medium, such as mobile applications or internet websites. Although the trend of e-commerce has risen in recent years but the concept was in consideration for many years (Beyari, 2021).

At the same time, e-commerce is playing an important role in shaping customer and business relationships, while supporting in reshaping of many sectors in which the retail sector is dominant. According to Al-Qudah et al. (2023), the rise of e-commerce is linked to companies like Amazon and eBay, which provided customers wide reach to different products at different costs in one place. It is an agreed fact that e-commerce is becoming a medium of interaction between customers and businesses, while providing convenience to the customers. Despite giving one-window solution to the customers, e-commerce is also impacting on inventory management abilities of the businesses.

It is because the businesses associated with e-commerce often deal with a shortage of products to meet customer. According to Asbari (2023), most e-commerce businesses rely on business-to-business activities. As a result, reliance on other businesses makes it difficult to maintain inventory stocks, leading to a loss of customers and revenues.

Just like other parts of the world, customer in the United Kingdom (UK) are also adopting e-commerce for their shopping due to its convenience.

In this regard, Amiri *et al.* (2023) claimed that several UK Small and Medium Enterprises (SMES) are linked with the internet, while many will be linked with the internet in the near future. It is because the demand of e-commerce is increasing and its convenience is attracting customer's more than physical retailing.

However, despite offering convenience, it is observed by Abdirad and Krishnan (2022) that e-commerce has both positive (convenience) and negative (trust) impacts on customer satisfaction due to its reliance on the supply chain system. Like every business, customer satisfaction is an important aspect for the e-commerce as well. In the case of e-commerce customers have high dissatisfaction due to several reasons such as shortage of products, out of stock, delivery timings, shipping costs, customer service, product quality and relatively high prices.

All these elements have their negative impacts on the satisfaction of the customer, but Rahmayanti *et al.* (2021) identified, product quality and product availability are two important elements of customer satisfaction in e-commerce industry. Similarly, Kaligis *et al.* (2024) found that customer service and availability of products along with delivery times as a key factor that impacts on the customer satisfaction.

As a result, the need for inventory management in e-commerce for customer satisfaction is a topic of debate (Rashid & Rasheed, 2024). Although studies like Munyaka and Yadavalli (2022) and Mondol (2021) have reported the need for investigation relationship between inventory management practices for customer satisfaction. Similarly, Rustandi *et al.* (2024) reported the need to study the relationship between inventory management practices in e-commerce with customer satisfaction by considering emerging technologies.

Thus, the aim of this study is to determine the significance of inventory management and customer satisfaction in the UK E-Commerce Industry. Since previous studies like Rustandi *et al.* (2024), Munyaka and Yadavalli (2022) and Mondol (2021) have reported the gap that exists in the inventory management and customer satisfaction in the e-commerce study, it was important to explore the significance of inventory management practices and customer satisfaction so that recommendations for improving inventory management practices are provided.

LITERATURE REVIEW

Cavaliere *et al.* (2021) stated that customer satisfaction is always a priority of any business without which they are not able to retain and sustain their market position. Customer satisfaction is always a priority of any business because they are the revenue generating sources. However, with the shift of business activities from traditional methods to digitalised pattern, the challenge of understanding customers and retaining their satisfaction is increasing.

According to Singh *et al.* (2023), customer satisfaction guarantees long term business growth for almost every industry. At the same time, customer satisfaction is more focused in service based industries like hospitality and healthcare. On the other hand, product based industries also rely on customer satisfaction for growing their business. It is because products are tangible in nature, and customers are able to evaluate its quality. However, the challenge that hinders in satisfying the customers is availability of inventory to meet customer demands (Mohamed, 2024).

Therefore, inventory management plays a crucial role for connecting businesses with the customers. Inventory management is also crucial for business to interact with the customer and understand their needs. It is observed by Kushwaha (2021) in recent years a significant shift is observed from traditional to digital from customers. As a result, the e-commerce businesses are dealing with the pressure of managing customer demands for retaining their satisfaction and storing stocks of inventories.

However, Mansouri et al. (2022) argued that satisfaction is term that varies in its application for customers because of their needs, demands and behaviours. Thus, creating the importance of inventory management in order to achieve customer satisfaction.

Invntory Management in E-commerce

According to Ovezmyradov (2022), storing bulk inventories is a regular practice of business world to avoid shortage of products for the consumer markets.

Whereas, stocking inventories ensures that customers are provided with the products as per their demands, without them having to wait it for long. In the case when customer satisfaction is achieved with the availability of the products, keeping stocks of products is more than important for any business. As a result, businesses prefer to have stocks of inventories from raw material to final products, so that customer demands catered on priority (Mirzaei & Zamani, 2024).

In addition, some businesses have the practice to produce extra inventories to reduce the burden in times of high demand while ensuring customer remain connected with them. However, with the stocking of inventories, businesses have to deal with a major challenge of controlling costs, because there is a cost associated with storing of inventories such as holding costs, cost of goods, and opportunity costs (Ugbebor et al., 2024).

However, it is important to note that inventory management practices of traditional business industries and e-commerce industries are commonly based on demand forecasting (Tang et al., 2023). On the other hand, there is difference in forecasting demand of the customer because of the ways, traditional and e-commerce business interact with the customers. Since, traditional business activities rely on direct interaction with the customers, they are able to understand their needs and create a stock that fulfils the demand.

Whereas, e-commerce businesses have to rely on data analytics to understand the buying behaviour of the customers to maintain their inventories (Alrumiah & Hadwan, 2021). It has been argued by Khalifa and Volkov (2024) that the e-commerce businesses often deal with fluctuations in prices due to which they have relatively low capacity to store inventories. It is because e-commerce industry has to deal with the sudden changes of prices, impacting its ability to keep stocks of products demanded by the customers.

As a result, the inventory management practices of e-commerce industry is different from traditional businesses. Argilés-Bosch et al. (2023), rectified the difference in terms of cost of holding and inventory turnover, because cost of holding of e-commerce industry is high and inventory turnover is relatively lower. Therefore, the concept of inventory control was introduced to support the e-commerce industry in managing its inventory while focusing on customer demands. According to Khalifa and Volkoy (2024), inventory control supports e-commerce industry in keeping the balance between supply and demand and dealing with uncertainty. Regardless of market conditions, it is normal for traditional and e-commerce businesses to hold certain level of inventories to support their operations and reaching customers.

In this regard, Lefebvre (2022) identified that understanding of inventory management is important because it provides working capital to businesses while managing other expenses. Thus, it is important that inventory management is understood and profits are maximised.

Moreover, Groenewald and Kilag (2024) discussed that inventories are an important asset for the e-commerce business, where its primary role is to identify and track stocks in an efficient manner. Similarly, Laghari et al. (2023) stated that appropriate tracking and identification of inventories results in increased profits and cash flow for the business. It is important to understand that when products are recorded as inventories, they can be used for selling to the customers, resulting in the generation of money.

However, consumer shopping behaviour has no consistency and it can change suddenly, making it difficult for the e-commerce businesses to manage their inventories. At times it is observed, that customers create demand for certain product and when it is stocked to meet the customer demand their demand changes and they start asking for another products. For traditional businesses, it is relatively easier for them to clear the stocks while addressing new demands of the customers (Fraccastoro et al. 2021). In contrast, for e-commerce businesses it is hard to clear their inventories because of their reliance on the data gathered by data analytics.

In a discussion made by, Mohamed (2024) claimed that efficient inventory management results in consistent customer purchase cycle. As a result, businesses, especially, in the e-commerce often struggle to enhance their inventory management practices due to their inefficiencies in the process. Qin (2022) highlighted that inefficient processes and poor inventory control in e-commerce often

results in creation of inventories that goes to waste. It is because customers can cancel their orders even after finalising it for the delivery. Since cancelation of orders is not stressful for the traditional businesses because they have shelves to store the inventories, and flow of customers reduces the wastage of products.

In the case of e-commerce businesses, when the orders are cancelled from the customers, it not just increases their costs but makes it challenging to wait for another customer, because it can take time. Thus, keeping the balance in inventory management is essential for the e-commerce industry is important due to relatively low conversion rate of customers.

Customer Satisfaction in E-commerce

The industrial revolution supported the manufacturers and producers of consumer goods in increasing mass production abilities and enhancing efficiency in the production processes (Aheleroff *et al.,* 2021). At the same time, the industrial revolution also enhanced the experiences of the customers at point of sales of those products and services.

According to Kern (2021), the industrial revolution created automated systems, which reduced customer service time, giving quicker access to the customers to have their desired products. As a result, customer satisfaction with respect to service quality and reduced wait time increased.

However, with the advancement of technology, businesses started to shift from physical to digital mode. It was during pandemic when the e-commerce industry observed it boom due to social distancing restrictions, where the customers were able to order their desired products and services from their convenience get it received at their homes, or desired places (Guthrie *et al.,* 2021).

However, it was observed that many e-commerce stores were reporting out of stock for many products, impacting on the customer. According to Roberts et al. (2023), when a business reports out of stock mark against any product, it is likely that they will lose their customers. Since e-commerce industry often rely on the number of orders and quantity of products being ordered, it was hard for them to manage the demand.

As a result, they started losing their customers due to reduction in customer satisfaction, because many products such as shoes and fashion garments were not available on the e-commerce stores. In this regard, Gomes *et al.* (2023) stated that good inventory management practices are directly linked with the customer satisfaction, because they does not have to wait for their orders delivered. On the other hand, Miao *et al.* (2022) argued that trust is a major contributing factor of customer satisfaction, which in the case of e-commerce is low. It is because customer often gets wrong orders and wrong quantities of their orders.

At the same time, it is also a common observation that often the products are not similar to that was shown in the description in e-commerce stores (Dagan *et al.,* 2023). According to Tan (2021), the e-commerce industry faces difficulties in earning trust of the customers. Similarly, Oliveira et al. (2023) noted that customers start losing their trust on the e-commerce stores due to their bad experiences. As a result, the experiences that customers face have a strong association with their satisfaction.

Despite the experiences customers have with the e-commerce stores, they still prefer it due to its convenience. For instance, customers can access different e-commerce stores from their cellular devices before ordering their desired products or services. It is because of customers are able to have price comparison as well as review the quality given by any specific stores. In this regard, Liu *et al.* (2021) indicated that customer reviews play a vital role in increasing customer satisfaction in the e-commerce stores.

Therefore, when customers are able to see the reviews they often have the understanding of operations of any e-commerce store. However, Paul and Nikolaey (2021) argued that some reviews on e-commerce store are fake and manipulative, misguiding other customers from the truth. As a result, customers dealing with these e-commerce stores demonstrate lower level of satisfaction and it is likely that they will never recommend these stores to others.

Moreover, many e-commerce businesses compete with each other on the basis of customer satisfaction, which demonstrates

the importance of retaining satisfaction of the customers. Thus, the satisfaction is achieved when there is a strong balance between what customer saw and what they got.

In this regard, Masyhuri (2022) stated that customer expectations are met by means of good or services offered by e-commerce businesses, which means that meeting expectation is important to increase customer satisfaction. Hence, e-commerce businesses looking to increase their profitability and sales have to focus on customer satisfaction.

Further, the customer satisfaction is also achieved when the e-commerce business is giving exceptional after sales services. According to Ferraz *et al. (*2023) after sales services play a vital role in maximising customer services because customers might face difficulties in using a product after purchasing.

Since giving after sales support to the customers is easier in the traditional or physical business, it is difficult in e-commerce business because of their indirect interactions with them. Lysenko-Ryba and Zimon (2021) emphasised on the importance of addressing difficulties faced by the customers after purchasing a product for increasing their satisfaction.

Further, Lee *et al.* (2022) identified a strong association between service quality and customer satisfaction with respect to e-commerce businesses. However, Qing et al. (2023) argued that responsiveness of e-commerce businesses on customer request and assurance of quality play a vital role in shaping their satisfaction. Since the services offered by e-commerce businesses are intangible in nature, the responsiveness of e-commerce stores supports in managing the satisfaction of the customers.

It is observed that e-commerce businesses are less responsive to the customer requests as compared to physical retail businesses (Deshpande & Pendem, 2023).

As a result, e-commerce businesses with high responsiveness to the customer demands are able to increase satisfaction of the customers as compared to those with low responsiveness. Therefore, it can be said that service quality and customer satisfaction are directly associated with each other especially in the case of e-commerce businesses.

The Link between Inventory management and Customer Satisfaction

The practice of effective inventory management reduces the risk of shortage of inventories while reducing the risk of losing customers. According to Singh et al. (2023), in a highly competitive business environment, customer satisfaction plays a vital role in growth and performance of businesses. However, the growth and performance of e-commerce businesses is directly associated with the inventory management practices (Singh *et al.,* 2023). It is because when e-commerce businesses have sufficient stocks of inventories, they are able to cater the demand with in time. Since, customers these days do not like waiting for the products to get back in stocks, and search for them on different e-commerce stores.

As a result, the e-commerce business that have those stocks are able to attract customers to their stores leading to increased profitability and sales (Al Tamer, 2021). Moreover, customers often rely on the information marketed to them on the e-commerce stores by means of product description, their expectations with the quality of product increases. However, they are unable to experience the quality of the product unless they have it with them, which determines either they are satisfied or not.

In this regard, Farida and Setiawan (2022) stated that in high competitive business era, understanding the importance of customer satisfaction is very important because it is directly associated with the success of business. However, the changing customer behaviour makes it difficult for the businesses to understand the need of specific product so that it can be stocked in the inventory (Ogbeyemi, 2023).

For instance, e-commerce businesses dealing in fashion products often find it challenging to maintain their inventories due to fast paced nature of fashion industry. In this situation, stocking inventories rely on customer demand which aligns with the changing nature of the business environment. Ridwan et al. (2024) also noted that depending on the demand of products for stocking inventory often results in major losses for the e-commerce businesses.

It is because the demand created by customers is fluctuating in the nature, which means that at some point there will be more customers for a product. Thus, in these situations inventory management practices play a vital role in achieving customer satisfaction.

At the same time, with high accuracy in inventory management customers are able to get their desired products with in time. It means that with accurate inventory management practices such as accurate stocks, e-commerce stores are able to fulfil orders in time. Resulting in high customer satisfaction due to timely and accurate deliveries to the customers (Kaul & Khurana, 2022).

However, e-commerce industry often struggles with keeping balance between customer satisfaction and inventory management because of its supply chain. Since e-commerce stores have to rely on producer and suppliers of the products, delays in stocks arrivals is often observed. Therefore, when customer demands are not addressed appropriately, their satisfaction declines and they start searching for alternative options to get their products. Further, due to tough competition in the e-commerce industry, customers have several options to trust on and get satisfaction in return.

RESEARCH METHODOLOGY

Methodology

The study sample was based on 5 journal articles published between 2010-2025 extracted from data sources like emerald, research gate and science direct. The reason for selecting articles from these data bases is due to their relevance with the field. In addition, the reason for selecting recent publications is due to provision of information based on recent happenings and trends related to inventory management and customer satisfaction with respect to e-commerce industry of UK.

Moreover, several keywords were utilised to extract the articles relevant for this research such as "inventory management and customer satisfaction", "inventory management practice in e-commerce", "customer satisfaction with e-commerce", "e-commerce industry and inventory management practices" and "significance of inventory management and customer satisfaction in e-commerce industry".

As a result of these keywords nearly 1207 articles appeared in the search. 200 extracted articles were rejected due to duplication, 450 articles were eliminated after title and abstract screening, 157 were eliminated due to unclear methodology, sample size and focus of study. With further screening, 150 articles were eliminated because aim ad research questions were not appropriately mentioned, whereas, 185 articles were eliminated due to lack of presence of key words and discussion other than inventory management practices and customer satisfaction.

While 50 articles were removed because they were not focused on the UK, as a result, 15 left articles that had relevant key words, focused on UK, and inventory management and customer satisfaction in e-commerce industry were selected for the final review and inclusion in the research. With further screening, 10 articles were also eliminated because they were not clear with their aim, so 5 articles were selected for the review.

Additionally, there was a risk of validity and reliability of the data that was to be used in the research, the inclusion and exclusion criteria was formed to ensure that selected studies for review remain aligned with the research. The inclusion criteria were based on defined keywords, which mean that articles covering these words were to be selected. Since the study was focused on specific region (UK) it was important that selected articles must cover the aspects of UK.

However, the articles that were not focused on any specific country but had general discussion were also included. It was important because the practices applied in other countries might not resemble with the practices of UK, as a result, priority was given to the studies that were based on UK but the studies that were not focused on UK but had general implications were also selected because they could be applied to UK context. At the same time, year range was important because recent studies have recent information and identified gaps with respect to inventory management and customer satisfaction in the e-commerce industry of UK. Although studies older than the defined year range of 2010-2025, had information

that was beneficial for this research, but the might be obsolete because recent studies have filled those gaps.

On the other hand, the studies that were not meeting the criteria were excluded, because they were not relevant, although they contained the useful information which was utilised for setting the foundation of this research and understand the recent development in the literature review. It was important to know the inventory management practices of other industries for enhancing customer satisfaction.

However, these were not included for data extraction and analysis because their information was either not relevant to UK context, were not covering the specific keywords or they were not focused on e-commerce industry. At the same time, with inclusion and exclusion criteria, the risk of researcher bias was eliminated because the selected studies were selected with a structured approach which eliminated the possibility of selection bias.

Moreover, the secondary qualitative approach was used as a research method because it supported in exploration of data with in-depth analysis, while defining the significance of inventory management and customer satisfaction in the e-commerce industry of UK. As discussed by Saunders et al. (2015), that secondary qualitative data is helpful in understanding the existing development through analysis of other researchers.

Further, the nature of this study was based on explanation of the significance of inventory management and customer satisfaction in the UK e-commerce industry for which the secondary qualitative approach supported in data gathering with the said purpose. At the same time, the interpretivism approach was applied for extracting the meanings presented by other researchers in their analysis. The interpretivism approach supported in understanding the explanations of the researchers by identifying the meaning from them.

At the same time, there were two data analysis techniques available for utilisation, the thematic analysis following the pattern of Braun and Clarke (2013) and the content analysis. Since both techniques are used for analysing qualitative data, thematic analysis of Braun and Clarke (2013) was selected due to its structured approach, guiding researchers to analyse the data based on six steps (familiarisation, code generation, theme making, refining of themes, naming of themes and discussion on themes). Although the secondary data was available in its analysed form there was still information related to patterns in the data was present. As a result, with the utilisation of thematic analysis technique, 4 main themes were developed, based on which the findings were presented and discussion was made.

Throughout the process of research ethics of research were considered by the researcher to ensure it remain free from any bias, or unethical practice. As a result, the work of other researchers was not presented as own work and wherever the information given by other researchers was used, it was cited to acknowledge their work and contribution. In addition, the extracted data was not manipulated and used as it was presented by them. It was important to ensure data is not manipulated to eliminate the risk of researcher bias and ensuring that the data is valid and reliable.

FINDINGS AND DISCUSSION

Inventory management practices of an e-commerce store plays a vital role in customer satisfaction but to achieve this satisfaction, e-commerce stores have to strongly rely on the suppliers. The reason for reliance on suppliers is that customers expect rapid deliveries after placing an order, but before the order is placed, it is important that desired product is available on the e-commerce store.

Since the focus of this study was on determining the significance of inventory management and customer satisfaction in the e-commerce industry of UK, for which five articles were selected for the review, and to extract the findings. The selected articles were authored by Grant (2024), Heuwinkel (2022), Gajewska et al. (2020), Patil and Divekar (2014) and Hintsala (2011).

The study by Grant (2024) explored the role of supplier relationships management for inventory management and customer satisfaction. In this study, semi-structured interviews were conducted with the supply chain experts and e-commerce managers for

exploration of their strategies, challenges and outcomes. Grant (2024) explored that technological advancements, such as advanced analytics and blockchain technology has enhanced supply chain visibility, optimised inventory levels, and improved operational agility for the e-commerce stores.

In addition, Grant (2024) also identified that supplier relationship management has critical role for e-commerce stores, due to their strategic role, which means that their relationships are developed based on trust, transparency and goal alignment. As a result, they are able to meet customer expectations and increase their satisfaction by optimising the inventory levels as per the demands of the customers.

The study by Heuwinkel (2022) explored the influence of warehousing and order fulfilment on customer satisfaction in e-commerce, by using mixed methods of data collection in the form of survey and interviews from customers and logistics managers, respectively. The findings of Heuwinkel (2022) through surveys, suggested that efficient order tracking system along with fast, accurate and inexpensive delivery has a profound impact on customer satisfaction.

On the other hand, the findings from interviews revealed that order processing in warehouses and distribution centers, flexible transparent distribution processes and focus on customer centered services supports in meeting customer expectations. Heuwinkel (2022) identified that integrated and optimized supply chain system close to customers has the ability to increase processing speed and shortens delivery times which enhances the customer satisfaction with the services provided by the e-commerce stores. It means that when e-commerce stores have efficient and customer focused logistics processes, they are able to meet the demands of customers leading to their satisfaction.

The findings from the study of Gajewska *et al.* (2020) were based on questionnaire as a data collection tool, with the focus on determining the impact of level of customer satisfaction on the quality of services provided by e-commerce stores. The SERVQUAL model was utilised for this exploration and 23 important criteria of customer satisfaction were evaluated.

Gajewska *et al.* (2020) with the utilisation of quantitative methods identified that customer satisfaction is strongly associated with the services provided by e-commerce stores, after customers have made purchases.

However, the guarantee of safe deliveries from e-commerce stores were the major contributor of customer satisfaction. It means that customer satisfaction is strongly associated with the level of services provided by the e-commerce stores, which not just develops trust, but it also increases the urge to make repeated purchases. The ability of e-commerce stores for managing their inventories is a major influencer of building the relationship of trust with the customers ultimately leading to their satisfaction.

The study by Patil and Divekar (2014) explored inventory management challenges for B2C (business to customer) e-commerce retailers. The study utilised the mixed methods approach where the data was collected using questionnaire and secondary data. Patil and Divekar (2014) identified that there are several challenges that e-commerce stores have to deal with, such as demand fluctuation, stock outs, reverse logistics, managing SKU, bullwhip effect, distressed stocks, count of inventory and multi-channel shoppers along with bottle necks and weak points.

Patil and Divekar (2014) found that aforementioned challenges faced by e-commerce stores for inventory management impacts on customer satisfaction. It is because of uncertainties in customer purchasing behaviour which creates uncertainties in inventory management and demand forecasting. Patil and Divekar (2014) concluded that there are several strategies by which the e-commerce stores are able to enhance their inventory management practices leading to customer satisfaction.

The identified strategies by Patil and Divekar (2014) are dropshipping, classification of inventory, pre-purchasing of stocks and stock less policies, these strategies supports the e-commerce stores in fulfilling customer demands as per their need and demand.

The study by Hintsala (2011) explored customer relationship management by the e-commerce stores by utilising qualitative data with both primary and secondary data collection, including interviews with the

companies, desktop research for exploring e-commerce regulations and observations of common customer relationship management features. Hintsala (2011) also focused on the need to understand the market conditions and the challenges that are faced by e-commerce stores in foreign e-commerce markets, while evaluating the existing practices of e-commerce industry in the market.

Hintsala (2011) identified that it is important for the e-commerce stores to understand customer demands in which language play an important. It is due to difference of customer's background, for which English is commonly used for defining the products, because English is considered as a global language and it is easily understood by the customers, but providing the information of products in different languages satisfies the customers.

In addition, Hintsala (2011) also found that user experience, such as website usability for the customers and its layout enhances customer attraction and increases their loyalty with the e-commerce stores. However, the role of marketing by e-commerce stores also plays an important role in customer satisfaction because when the marketing activities are conducted, they are mainly focused on the products that are available in the stocks of the e-commerce stores.

DISCUSSION

The findings of Grant (2024), Heuwinkel (2022), Gajewska *et al*. (2020), Patil and Divekar (2014) and Hintsala (2011) provided different perceptions and directions for understanding the relationship of inventory management practices with the customer satisfaction with respect to e-commerce stores. It is found that each study had different focus, but they all shared the common views in concluding that inventory management practices of e-commerce stores has strong association with customer satisfaction. As a result, five themes emerged from the findings of selected studies, these themes are

Supplier Relationship Management and Inventory Optimisation for Customer Satisfaction

Grant (2024) concluded that supplier relationship management in e-commerce stores enhances customer satisfaction

because they are able to get their orders in time. Similarly, the studies by Gajewska *et al*. (2020), Patil and Divekar (2014) and Hintsala (2011) also concluded that inventory management practices of e-commerce stores have strong link with customer satisfaction, but these studies presented different criteria for their conclusions in which supplier relationship and customer relationship were common. These findings align with the findings of Ovezmyradov (2022), Mirzaei and Zamani (2024), Ugbebor *et al*. (2024) and Tang *et al*. (2023).

For instance, Ovezmyradov (2022) highlighted the importance of inventory storage for overcoming shortages of products when the demand increases, while the findings of Grant (2024) also determined that inventory stocks are important for dealing with customer demand for which strong relationships with the suppliers are important. It is due to the reason that suppliers are the important element that ensures products remain available for the sellers whenever there is a demand raised by the customers.

However, for understanding the demands it is important for the e-commerce stores to have strong system of forecasting and predicting demands of the customers based on demand patterns, also claimed by Alrumiah and Hadwan (2021). The similar findings were also reported by Grant (2024) that technological advancements are supporting the e-commerce stores in making accurate forecasting for customer demands based on trends and patterns.

The interaction of suppliers with the e-commerce stores supports both in understanding the patterns of customer demands so that production is made as per the trends and demand while controlling over and under production. Khalifa and Volkoy (2024) also indicated that inventory control through demand forecasting and predictions keeps the balance between supply and demand of customer.

Lefebvre (2022) also provided the similar perception for keeping the balance between demand and supply by stating that appropriate understanding of demand and supply increases customer satisfaction and reduces the costs for the e-commerce stores.

Logistics Efficiency and Customer Satisfaction in E-Commerce

Heuwinkel (2022) previously found that efficient, cost effective and transparent order processing practices of e-commerce stores increases customer satisfaction. In their studies Groenewald and Kilag (2024) and Laghari et al. (2023) also rectified that efficiency in logistics enhances stocks tracking and helps in fulfilling customer needs as per their demands.

Thus, when inventory management practices are made efficient it supports the e-commerce stores in two ways, firstly, it increases cash inflow and increased sales, secondly it increases customer loyalty and satisfaction. On the other hand, the findings of Fraccastoro *et al.* (2021) argued over addressing customer needs through efficiency in logistics, because customer demands changes so quickly that even data analytics of provide inaccurate forecasting and predictions.

Qin (2022) also provided similar perception by stating that changes in customer buying behaviour are unpredictable due to which over and understocks are observed in the ecommerce stores. It may be because customers follow trends of the market, which means that if they were demanding something one day, next day they will start demanding another thing.

As a result, the forecasting becomes inappropriate, and stocks often goes to waste, increasing costs for the e-commerce and reducing customer satisfaction because the ecommerce stores are unable to meet their demand. Similar perception is reported by Roberts *et al.* (2023) who concluded that when any e-commerce store, reports out of stock, they start losing their customers because customer demands are not met efficiently, and customers often complain about shortages of product at a particular e-commerce store due to their inefficient supply chain system.

Regardless of rapid changes in customer buying behaviour, the findings of Mohamed (2024) supported the findings of Heuwinkel (2022) because they both emphasises on bringing efficiency in inventory management through efficient logistics management that is based on forecasting and predictions through data analytics so that inventories remain in stocks as per the need.

Patil and Divekar (2014) emphasised on better inventory management practices by using dropshipping strategy and purchasing stocks after orders are placed to increase customer satisfaction and ensuring timely deliveries. The previous findings of Patil and Divekar (2014) also emphasised on the importance of making logistics and supply chain efficient for enhancing customer satisfaction.

Service Quality and Customer Experience

Gajewska *et al.* (2020) presented the significance of inventory management and customer satisfaction through the lens of services quality provided by the e-commerce stores once the orders are placed by the customer. The services quality is a strong influencer of customer satisfactions because service quality impacts on customer experience. So when the experience of customers is good with the services they are offered they are satisfied with the business, and becomes loyal with a brand.

In previous studies like Kern (2021), automation systems were found to be a factor that enhanced services quality and reduced waiting times for the customers. As a result, a strong bonding between business and customer was observed and the brands with automation systems had more loyal customers than the ones with normal systems. Similarly, Guthrie *et al.* (2021) appreciated the convenience given by the e-commerce stores to the customers in terms of ordering and receiving the goods in time without waiting in long queues.

Moreover, Gomes *et al.* (2023) also added that reduction in waiting times for customers determines quality of services offered by a retailer or the e-commerce store, because longer the wait times, lower the service quality ending up reducing satisfaction of the customers. Therefore, the claim made by Gajewska *et al.* (2020) is supported by Kern (2021) and Guthrie *et al.* (2021), because they all concluded that quality of services either by means of reduced waiting times, or convenience or automation supports e-commerce stores in satisfying and addressing the needs of their customers.

The claim of Gajewska *et al.* (2020) is also supported by Roberts *et al.* (2023) who

believe that during high demand times, it is often noted that customers are not dealt appropriately and their needs are often misunderstood which impacts on loyalty of the customers and their satisfaction with any e-commerce stores. Similarly, Ferraz *et al.* (2023) also discussed that dissatisfaction of the customer increases when they are unable to find support from the retailer or e-commerce store after making the purchases and receiving their orders.

It is because some customer find it difficult to use the ordered product, or they might not find it appropriate for their consumption. In this condition customer always rely on after sales services to get desired solutions for their issues, so when they are catered appropriately they show their loyalty and refer the services to others.

Customer Relationship Management and Market Adaptation

Hintsala (2011) presented that user experience given by e-commerce stores increases customer satisfaction. It is important to understand that inventory management and customer satisfaction with the e-commerce stores rely on the suppliers and strong supply chain system because supply chain system enhances the inventory management practices of the e-commerce (Khalifa & Volkoy, 2024).

However, there are several challenges that e-commerce stores have to deal when linking their inventory management practices with the supplier relationships management. For instance, fluctuations in the prices of inventory often create confusions in customers which effects their trust on the e-commerce stores. It is due to the reason that there are several e-commerce stores available to customers, and customers these days always opt for value for money. So when they compare the prices offered by e-commerce stores for the same product, customers always select the ones that has lower prices and faster delivery times.

However, in this process customers do not evaluate the supply chain disturbance because they expect their orders to be delivered timely. On the other hand, from the lens of e-commerce stores it is evident that every e-commerce store has different cost of inventory holding and turnover which affects their pricing strategies (Argilés-Bosch *et al.,*

2023). In addition, every e-commerce store is competing with each other based on the levels of customer satisfaction, which means higher the number of satisfied customers, higher the profitability of the store. On the other hand, focusing on customer relationship management is also important for the e-commerce stores because customer reviews play an important role in shaping the perception of e-commerce stores.

Therefore, if any negative review is posted on social media it significantly harms the image of the e-commerce store because it showed that customer was not satisfied with the commitment made by them. The reason for this dissatisfaction was explained by Masyhuri (2022) discussing that there is always a factor known as perceived value that is developed from expectations, which means that a customer is always satisfied with the product or service if their expectations are met.

As a result, when expectations are met, it increases the sales of the e-commerce store, increase in loyal customers and increase in repeated purchases and referrals. However, to meet this expectation, there are several challenges faced by e-commerce stores that effects on their strategies of customer relationship management. For instance, sudden shift in demands, supply chain disruptions, and multi-channel shopping, also discussed by Patil and Divekar (2014).

For overcoming aforementioned challenges, the e-commerce industry started to adopt different methods for reducing their costs of inventories, reducing delivery times, ensuring availability of stocks and meeting customer expectations such as dropshipping and purchasing the inventories when there is a need (Patil & Divekar, 2014). These strategies are effective for the e-commerce stores because they are able to deliver the quality as per the commitment and reduce delivery times while saving their additional costs for holding inventories.

The findings of Al Tamer (2021) also supports previous findings of Patil and Divekar (2014), stating that by maintaining the stocks to a minimum demand level, not just reduces the cost but also attracts the customers for getting their desired products especially when the product is not available on other e-commerce stores. However, Ridwan et al.

(2024) argued that depending on customer demand is not good for the e-commerce stores because it increases the costs and often results in dissatisfaction of the customers. It is because many products have short shelf lives and they have to be consumed before time.

Therefore, the shift to strategies like drop shipping and purchasing after order is placed is a good method for increasing customer satisfaction and business growth of e-commerce stores. On the other hand, Kaul and Khurana (2022) argued that purchasing the stock after getting the order is a risk for the e-commerce stores, although it increases satisfaction of the customers but also increases the cost for the e-commerce stores, giving major losses to them.

The discussion on findings from the studies of Grant (2024), Heuwinkel (2022), Gajewska *et al.* (2020), Patil and Divekar (2014) and Hintsala (2011) revealed that inventory management practices of the e-commerce industry has a strong significance for increasing customer satisfaction.

It is because customers these days, look for convenience, timely deliveries, service quality and timely availability of the products, these factors are found in the operations of e-commerce industry because they provide convenience, timely deliveries, after sales services, and ensuring timely availability of products for the customer by managing their inventories through forecasting and predictions identified from patterns of the customers.

E-commerce stores that are focused on making their inventory management practices efficient are growing in the highly competitive market because they are able to understand the needs of the customers and meeting their expectations. However, catering to customer needs based on data analytics is always not appropriate because of rapid fluctuations in demand from the customers and increase in prices of products by the suppliers.

As a result, it demands e-commerce stores to focus on aligning their business objectives by building strong supplier relationship and customer relationship so that customer satisfaction increases. As long as customer satisfaction is consistent, the profits and sales of the e-commerce tends to grow, because a satisfied customer brings more business for the e-commerce stores.

CONCLUSION

The following study was focused on determining the significance of inventory management and customer satisfaction in the e-commerce industry of UK by applying secondary qualitative approach. From the findings, the emerged theme was that effective inventory management is essential for achieving customer satisfaction which includes the aspects and factors like timely delivery, stock control and strategic partnership with suppliers and strong customer relationships. These factors were the main contributors of developing loyalty of the customers and increasing the urge for repeated purchases.

On the other hand, the findings also revealed that inappropriate, inefficient inventory management results in stockouts, shortage of products, and delays in deliveries resulting in decline of customer satisfaction as a result of which their trust on the e-commerce stores reduces, resulting in losses for the e-commerce store.

However, it was found that e-commerce stores with efficient inventory management practices such as integration of technology are able to make accurate forecasting for managing stocks and inventories which increases the trust and satisfaction of the customers. In addition the role of technology for enhancing customer satisfaction is undeniable because it increases the ability of e-commerce stores to meet customer expectations and demands.

At the same time, focusing on customer preferences like timely deliveries with shorter wait times and vast range of products contributes in their satisfaction and results in increased business and profits for the e-commerce stores. There were several challenges found in optimisation of inventory management for customer satisfaction such as fluctuations in demands, supply chain disruptions and supplier relationships. These challenges have the potential to impact on inventory management practices and customer satisfaction with the e-commerce stores. Based on the identified challenges from the findings there are several recommendations for the e-commerce stores for enhancing their inventory management and customer satisfaction.

Firstly it is recommended to invest in AI technologies for gaining better understanding of the customer demands based on historical trends. It is important because technology supports in understanding trends and patterns based on which predictions and forecasting can be made for stocking inventories. It is also recommended that customer centric strategic partnerships are developed with the suppliers because when customers are focused profits and sales both increases for the businesses.

Moreover, it is recommended to apply flexibility in inventory management so that customer needs are appropriately catered and the risks associated with supply chain processes are reduced, it can be achieved by increasing the reach of warehouses for order fulfilment and dispatching. As a result of these practices it is likely that customer satisfaction will increase and the business of e-commerce stores will grow with increased sales and profits.

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