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ROLE OF SELF SERVICE TECHNOLOGY IN HELPING RETAILERS FOR PROMOTING PHYSICAL DISTANCING DURING COVID- 19 PANDEMIC SITUATION

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Abstract: Covid 19 has changed the focus of retailers and the way they used to serve their customers. Retailers in their stores are extensively following new health and safety measures. They are evaluating the actions that are to be taken to increase the confidence of shopper. New and innovative technology like self service technology plays an important role in delivering the services to customers with new experience and decrease the direct contact i.e. contact less payment. Retailers have to follow government guidelines like social distancing, wearing of masks, use of sanitizers and hygienic environment so that consumer feels safe while shopping. This pandemic has brought huge fear among consumers as well as retailers and everybody consider their health safety first. Self service technology helps retailers as well as consumers in maintaining physical distance. This research is done to analyze the “Self Service Technology helps retailers in Promoting Physical Distancing during Covid- 19 Pandemic Situation”. Self service technologies like Digital apps, self scanning, self service checkouts, self service kiosk, scan & go mobile technology has become important element for retailers to attract consumer with social distancing protocol in this pandemic situation.

Keywords: Self Service Technology, Covid 19, Physical Distancing, Retailers, Pandemic Situation

抽象的: Covid 19 改变了零售商的关注点以及他们过去为客户提供服务的方式。商店中的零售商正在广泛遵循新的健康和安全措施。他们正在评估为增加购物者的信心而要采取的行动。自助服务技术等新技术和创新技术在向客户提供新体验的服务和减少直接接触 (即少接触付款) 方面发挥着重要作用。零售商必须遵守政府的指导方针, 例如社交距离、戴口罩、使用消毒剂和卫生环境, 以便消费者在购物时感到安全。这种流行病给消费者和零售商带来了巨大的恐惧, 每个人都首先考虑自己的健康安全。自助服务技术可帮助零售商和消费者保持物理距离。进行这项研究是为了分析“自助服务技术帮助零售商在 Covid-19 大流行情况下促进物理距离”。在这种大流行情况下, 数字应用程序、自助扫描、自助结账、自助服务亭、扫描和移动技术等自助服务技术已成为零售商通过社交疏远协议吸引消费者的重要因素。

关键词: 自助服务技术、Covid 19、物理距离、零售商、大流行情况

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1. Introduction

Covid-19 pandemic has decrease the overall economic growth of every sector all over the world. Self Quarantine and social distancing compel consumers to depend completely on e-commerce. This pandemic has changes life of both consumers as well as of retailers and witnesses the highest environment changes. Retail rectors has faced many issues during covid period like demand fluctuations, supply chain management and to retain customers they has to provide safe and hygienic environment. Retail industry is investing continuously in digitalization to fulfil the demands of modified consumer habits (Lee, Park, Ham and Chang, 2021). Consumers are very well informed and consider their health safety first. Most of the consumer now days prefer to shop with the stores that follow contact less or touch less or self check out options. Various innovative technologies are developed to boost up retail sector and attract more and more customers in store. Many companies like Infosys and Amazon stores had adopted innovative technologies like fast tags, self service etc. Due to pandemic, consumers and retailers both prefer to contact less card payments and fewer transactions of cash. Many countries have introduced contact less payment across all parts with the possibility to complete process of payment with less physical interaction with the technology.

Social distancing in store means that few customers can shop at given time. People have to follow distance of at least 4 feet. Hence to decrease the unavoidable footfall in stores at given time, it is important for retailer to use technology that will accelerate the process and keeps the footfall moving. In the same way customers can make queues before getting enter

in the store and automation can make sure that this process is not repeated at the time of payment. *Singapore and Hong Kong introduced Watsons GO in the middle of pandemic. In this customers can scan the barcode of any product in store and can pay through app. SingTel is also introduced in Singapore, it is a robot in UNBOXED unmanned store and includes a security system and checks temperature to make sure social distancing among employees and other customers. Both are the example of technology adopted by retailers to provide safe shopping experience to their customers along with pursuing government protocols like social distancing.*

Self Service technology provides the control of whole transaction in the hand of customer. In store ordering, checkout or loyalty scanning, this technology can judge consumer control and well being. Consumer's loyalty towards a brand increases if they feel safe in terms of their health in that store. This loyalty and support for particular retailer will be helpful in even after Covid if that retailer provide hygienic and clean environment along with self service automation on mobile, Queue busting mPOS technology, pay anywhere. Consumer loyalty and confidence increases for such retailers. Even before Covid 19, Self service delivery tools used by service providers include internet-based services, mobile self-services, interactive voice response systems, interactive kiosks etc (Fernando, Surjandy, Meyliana and Wijadja, 2020). These services become more popular and need for the retailers due to Covid19. Earlier it was an option but in current situation it has become the need of an hour. It is beneficial for more consumer as well as retailers. Consumers can get safe, convenient, easy, customized and improved services with

less waiting time while retailers have better control on delivery of services, standardization of services, decrease cost of labour and expand opportunities for deliveries. *Due to pandemic unpredictable nature, retailers must continuously modify their services to give priority to safety of consumers without negotiating on experience of shopping. Retail industry is going under huge transformation due to new and innovative technologies like self service technology which is very much needed to attract more customers to their stores and to enhance growth.*

2. Literature Review

2.1 Technology adoption by Retailers during Covid -19

Lumsden (2020) explored that pandemic Covid-19 leads to range of self service applications and technologies for retailers and consumers. More and more self services are predicted due to pandemic in future. Decathlon is going to introduce mobile self checkout options in Germany in which consumer can scan and make payment for the items with the help of their smartphones and it will decrease unnecessary contact with employees and other people and will reduce the chances of Covid transmission.

Vakulenko, Oghazi and Hellstrom (2019) found that various self service delivery tools are becoming popular day by day. Services that are based on internet, interactive voice response systems, interactive kiosks, individual health care devices and mobile self-services etc are slowly adopted by retailers as it creates value to both service provider and consumer. These services provide consumer with extraordinary experiences, easy, convenient and less physical contact and service provider get benefit of

control on services, less labour cost and standardization of services.

Sydow (2020) explored that Covid-19 has bring new challenges for business in all over the world including retail sector. Lots of changes are done in this sector due to pandemic and new technologies like mobile scanning, machine recognition of product, tracking of consumer behavior, electronic point of sale system etc. Retailers are adjusting their processes according to government protocols and rules regarding sanitation, requirement of social distancing and packaging etc. Digitalization can be done in many forms such as digital apps, self service technologies, mobile self scanning service etc.

Ho (2021) found that to fulfill consumer's modern day preferences, retailers are introducing smart and staff free stores to enhance shopping experience & operational efficiency and decrease of cost of labour. Self ordering system, self service kiosks and Aligens technology that includes mobile ordering system and self checkout demand is increasing and found as ordering solution in Hong Kong. Watsons GO allowed consumers in physical store to scan the barcode of any product and pay in app. SingTel introduced a robot with security system and checks temperature to make sure social distancing among consumers.

Cervantes and Franco (2020) observed that new and innovative technologies are adopted by retailers to decrease cost and operate more effectively. With the intention to enhance consumer experience and be in competition, retailers always try to adopt innovative technologies. Mobile advancement and technology have created alternatives for SmartCart, Mobile Apps, Self Checkout, Retailer specific App, Service Robots, in store Kiosks etc. Shopping new technologies and innovations can

make better the experience of consumer and perception image of store. These efforts by retailers help in attracting and retaining consumers.

Hand (2020) examined the Covid-19 impact on retail industry. Due to coronavirus there is a significant change in the purchasing behavior of the consumers, demand of the product, retail stores etc. Retailers need to change and adopt new technologies to follow the government rule for Covid transmission. Self service technologies demand is increasing at this pandemic situation to follow social distancing. These technologies will not only help consumer to purchase with safety measures but also retailers to increase their sales and growth.

H1 Technology adoption by Retailers during Covid -19 positively influences the Users acceptability for Technology during Covid -19 pandemic

2.2 Self service technology and social distancing

Echecopar (2020) found that pandemic Covid-19 period is very challenging for all types of businesses and retailers to continue with fixed operating costs. Self-service Kiosks is one of the main elements that supports retailers and businesses to integrate and getting solutions of challenges. Due to Covid-19, demand for contactless transactions is growing and has become an important part of new normal. Self Service Kiosks has become focal point of the industry. Many changes are happening in the market to modify according to demand of environment and consumers. Self service is an important technology to keep physical distance among consumers and employees.

Sheth (2020) examined that Covid-19, social distancing and lockdown has changed the buying

and shopping habits of consumers. Above situations forced and incarnated new habits among consumers. Shopping and delivery process is modified according to the guidelines of the government like wearing mask, social distancing and adaptation of new technologies that are contactless. Consumers are also getting used to it and prefer these services and technologies even may be after Covid19 period. Miles (2020) explored that coronavirus has huge impact on all over the world and led to big losses to various retailers and businesses. To cope up with these heavy losses and attract customers, retailers have to find innovative solutions that will provide reliable and safe environment for shopping in stores. Self service is one of the solutions to many issues of retailers as it will provide contactless dealing to consumers. Self service solution and checkouts are adopted by many retailers all over the world and it help retailers in protecting their staff and provide safe shopping. During current situations, number of customers are restricted in stores due to social distancing. Retailers adopted new and innovative technologies are using apps to regulate flow and number of consumers in the store.

Akhtar, Akhtar, Usman, Ali and Siddiqi (2020) found that due to Covid 19 many restrictions are made by the government to control this disease. Lockdown and social distancing are some of the important measures taken by the government but these restrictions and had put great impact on consumers. Their buying and shopping habits got changed. Consumers prefer to either shopping online or in the store that follow proper government guideline and social distancing. Self service technology is also becoming popular among retailers and consumer as it includes contactless transactions.

Moss, Damais and Ansons (2020) explored that Covid-19 has made changes in the process of all types of business. Familiar old routine habits are no longer possible in present situation. This pandemic has bring fear among consumers and no normal exists. Priorities, behavior and attitude of consumers are changing rapidly and this condition can be considered as challenge as well as opportunity for retailers. They can make strong relationship with customers by providing them services with new and innovative technologies like self service technology where consumer can feel safe as it is contactless process. Retailers must made strategies to follow government social distancing rule to provide health safety to consumer while shopping.

Amaro (2020) found that pandemic Covid19 has made huge impact on economic, social and health of people among all over the world. Retailers are also adversely impacted and have to found solutions with new and innovative technologies. Retailers are also influenced by Digital transformation in this covid19 time. Strong customer relationship can be developed by designing and analyzing an intelligent system. Competition is also one of the factors to use intensive digitalization. Due to pandemic, many changes are evolved like shift in consumer buying process, change in experience of customer and adaptation of new marketing strategies along with innovative technologies.

H2 Contribution of Self service technology in social distancing positively influences the Users acceptability for Technology during Covid -19

2.3 Precautions by retailers while offering SST

Bethan & Cano (2020) explored the future of physical stores in omni-channel retail and mainly the basics design of retail environment to

optimize the experience of consumers. Virtual reality, radio frequency identification, WIFI, augmented realty, self service checkouts, intelligent fitting rooms, mobile applications are some of the latest technologies that are used by retailers to provide their customers best experience. Motive of retailers is to enhance experience of consumers, easy, convenient and integrated shopping journey. Mobile first approach is widely used by retailers all over the world.

Briedis, Kronschnabl, Rodriguez & Ungerman (2020) examined that Covid 19 has topple the retail industry and forced to close the stores and lead to uncertainty of the future of in store experience. This pandemic has changed the behavior and attitude of consumer for shopping totally. To overcome this pandemic challenges, retailer must change their old strategies to new and innovative technologies that follows social distancing and provide safety measures to consumers while shopping.

Felice (2020) explored that during the Covid19 period non-essential business are closed according to government guidelines and only stores with essential items are available to consumers. Retailers have completely modified their routine to make sure of safety of their employees and consumers. Social distancing practiced is adopted by many retailers including new and innovative technologies. Consumer will only come to purchase product in store if they feel comfortable and health safe. Using sanitizers, wearing masks, social distancing are some of the safety measures that can be taken by even small vendors.

Baldwin (2020) found that retailers was already in bad situation before pandemic and during the Covid-19 the situation get worse. Due to lockdown at Covid period retailers suffered a lot

as non essential stores was closed and only essential items stores was opened. Technology is only one medium that help retailers to cop up with this situation. Retailers are already reacting according to the need and demand of the consumer changed habits and adopting the technology to make consumer feel secure and safe while visiting stores. Touch less, mobile point of sale, Digital wish list; virtual queus are some of the important requirement of today is shopping criteria for consumers.

Sentance (2020) examined that Covid-19 pandemic has huge impact on consumers buying habits. Retailers are opening their stores but still fear of contamination exists. Retailers are keen to earn trust of their consumers by providing them with the process in the store that can manage risks and give safe shopping experience. Many new technology solutions are emerging as a solution to the retailers and consumer challenges. Pay and go technology, QR codes scanning, mask wearing, availability of hand sanitizers, cleanliness, hygienic are some of the measures that are taken care by retailers to encourage consumers to do shopping with physical and social distancing.

Dupre (2020) explored that due to Covid-19, retailers with essential items changed quickly and follow the safety measures while treating consumers and most of the nonessential retailers choose to change from physical to digital environment. Technologies help the retailers in changing their process according to the government protocols and to follow safety measures. Customer personalization, services and delivery with contact or touch less technologies helped retailers in solving at least some of the challenges.

Kim (2020) found that Covid19 has affected lives of everybody. People stayed home during

lockdown and their habits and priorities changed a lot. Stores of retailers went virtual and digitalization becomes important aspect for them to increase their sales and attract customers. Pandemic act as an accelerator to digitalization and to survive in this situation every retailer transform their stores digitally. Retailers have to follow health and safety measures while opening of their stores. Social distancing is consider as very important aspect to reduce contamination and consumers also prefer the stores that follow these guidelines and use technologies to provide safety to employees as well as customers.

H3 Precautions taken by retailers while opening store during Covid 19 positively influences the Users acceptability for Technology during Covid -19

2.4 Users acceptability for Technology during Covid -19

Yohn (2020) explored that retailers are changing their brick and motor operations according to health and safety regulations and fulfill basic expectations of customers. Wearing of masks, making sure of physical distancing and control in customers and employees number in stores, contactless transactions, speed improvement in service and introduction of options of self services. Due to Covid-19, retailers are preparing to make extraordinary in store experience for the customers who visit in person. This can encourage people to justify the exposure of risk of health and overcome the disinterest of behaviour adopted by people during lockdown. This crisis encourages innovations and need of self-service to extend customer digital experience. Retailers can use new possibilities of Covid19 times and create interactive, social and

immersive experience for customers with no physical contact.

Koch, Frommeyer and Schewe (2020) found that retailers are making lot of efforts during Covid 19 times to build, improve and promotion of online stores to increase their sale, improve growth and to follow social distancing. Consumers are hesitating to buy goods at stationary retailers shops due to restrictions by government and fear of infection. This study found positive relation between self isolate intentions and unusual purchase behavior. COVID-19 has effected financial markets and economies at international level due to strict restrictions by government on social life and economic activity.

Pantano, Pizzi, Scarpi and Dennis (2020) examined that COVID-19 because several disruptions in mid and short term level of businesses. Retailers face lots of challenges during this period. Due to shutdown GDP growth of every country is affected adversely and retail sector also suffered a lot. All retailers are trying very hard to increase their sales and to attract new consumers. They have to understand intentions and behavior of all stakeholders. New approaches that support government restriction for safety of health like social distancing must be followed by retailers.

Elnahla and Neilson (2021) found that during COVID19 pandemic, retailers suffers a lot but work as frontline employees to provide services to customers at their home. Retailers followed government restrictions and guideline during pandemic and lockdown and provide products to consumers with proper safety like social distancing. Buying behavior of consumer has changed a lot during this pandemic. Every one either consumer or retailer prefers to pursue 2

feet physical distance while shopping, wears masks and otherwise like to order online.

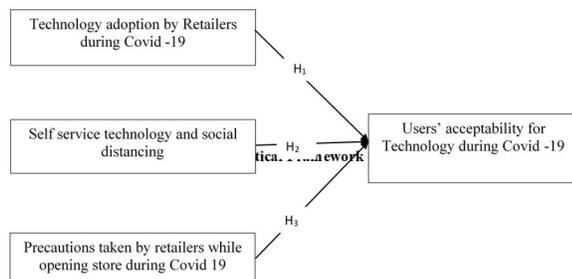
Connor (2020) explored that retail industry of fashion undergone to huge transformation mainly during Covid-19. This industry is in chaos state due to sudden pandemic situation. Pandemic provide the thought process to fashion retail industry that to be in competition they have to change according to the situation and changing behavior pattern of consumers. New criteria's are developed among consumer during Covid period like cleanliness, safety measures like mask wearing, temperature check and social distancing. Retailers are navigating guidelines for social distancing among employees and consumers.

Nithya and Chirputkar (2020) examined that Coronavirus has changed lifestyles of consumers and brings new challenges for retailers. All sectors are witnessing fastest and huge changes in business environment. Retailers are following government protocols, maintain physical distancing and have adopted self service technologies. Social distancing and lockdown has forced consumers to change their buying pattern and prefer to buy products with health safety protocols. New innovative technologies like self service are helping retailers to come back in the competition and increase their sales.

Conclusion

Coronavirus has brings new challenges for every type of businesses all over the world particularly in retail sector. When business will resume, retailers must adjust to new protocols and rules like sanitation, social distancing etc. to navigate successfully "new normal" and deliver new service experience to customers with safe and secure environment. Retailers must setup flexible channels in their stores such that store

layouts contain social distancing and cleaning and disinfecting processes. Technology and digitalization had save the retailers to come extent. To cope up the losses due to Covid 19 and attract more customers digitalization is playing an important role. Digital apps, self service technology, self scanning, self service checkouts, self service kiosk, scan & go mobile technology are some of the technologies used by retailers that follow government protocols of social distancing and minimum contact with other individuals. These technologies allow consumer to control their transactions and they can shop and check out without any contact. Consumer is always a priority for any retailer and it is important for them to have focus on expectation of consumers and make them feel safe while using new self service solutions in this Covid crisis.



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