



Faculty of Business Economics Master of Management

Master's thesis

Esmée Wouters International Marketing Strategy

SUPERVISOR : Prof. dr. Allard VAN RIEL

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Investigate consumers reactions to new technologies, such as AI, VR (or AR), blockchain, etc. in omnichannel retailing

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization



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Preface

I wrote this master's dissertation to graduate from the Master of Management, International Marketing Strategy, at the University of Hasselt.

For starters, I would like to thank my supervisor, professor Allard Van Riel, for the help, feedback and patience during the writing process. It has been a longer road than usual, so I appreciate all his assistance. My second gratitude goes to my family for helping me out and reading pieces of the dissertation looking for mistakes.

The master's dissertation investigates the evolving retail landscape and the challenges offline retail faces. It elucidates on the customers' opinion on the use of smart in-store technology.

Enjoy reading!

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Introduction

The combination of the fourth Industrial Revolution (IR 4.0) and the COVID-19 pandemic has caused a further rise in the upcoming e-commerce. The 4th industrial revolution has provided the service industry and consumers with services and technologies that allow customers to interact with service providers without the need for physical contact. These non-contact services have become increasingly relevant in the light of the recent pandemic. As a consequence of the restrictions on human contact during the different phases of the pandemic, the use of smartphones and displays in general has gained significance in an accelerated way, not only in the younger segments but also in the older ones. The consumer behaviour is said to have changed from contact to untact. (Moon et al., 2021).

The IR 4.0 started in 2010. This revolution was all about integrating physical objects with people through the Internet, with 4.0 technologies being Artificial Intelligence, Internet of Things, etc. As it was introduced, it also evoked the fourth revolution in retail (Retail 4.0). The retail industry is profoundly changed by this revolution. Although Industry 4.0 started in 2010, the term Retail 4.0 is relatively new for retailers worldwide (Har et al., 2022). Over the last two years, the e-commerce market has seen a 45.8% surge in online sales worldwide. Mobile e-commerce sales as a proportion of total e-commerce sales climbed from 52.4 % in 2016 to 72.9% in 2021 (Har et al., 2022). Many brick-and-mortar stores are struggling, partly because of the rise of e-commerce. For example, ecommerce accounted for more than 40 percent of US retail growth since 2016. In a study by Adhi et al. (2019), 82 percent of US shoppers indicated that they shopped online in the last three months, and this same percentage used their smartphone to make purchasing decisions. The study also found, not so surprisingly, that 42 percent of the millennials prefer the online retail experience and avoid stores whenever they can (Adhi et al., 2019). As shopping was once an activity of going out and browsing a variety of stores and options, it has now become a lazy, stay at home activity. Technologies have given people the skills and abilities to shop without exerting much effort. The "touch and feel" concept, shopping was all about, is fading away (Devi et al., 2019). The adoption of these new 4.0 technologies has taken a slow start, which was then accelerated by the COVID-19 pandemic. During this period of lockdowns and social distancing, 4.0 technologies have provided a seamless shopping experience (Har et al., 2022). The fear of contact with others and risking infection, has caused people to stay at home. Social distancing became a common trend, which caused the offline retail sales to decrease substantially. Online sales took advantage as it provided convenience and safety at one's home in times of uncertainty (Moon et al., 2021). The COVID-19 pandemic has brought us to a new economic reality. People losing their jobs, therefore spending less, which causes businesses to collapse and in turn cause the loss of more jobs (Roggeveen et al., 2020). According to the World Economic Forum, the Covid-19 pandemic and the resulting lockdown caused 114 million people to lose their jobs over 2020.¹ Every aspect of our daily lives has changed, and consumer spending is no exception. Consumer spending is one of the most important driving forces for global economic growth. Covid-19 has impacted some of the factors determining this consumer spend, but also altered how and where consumers choose to spend their earned wages.

¹ Information is dated from 2020. Therefore, it could be outdated.

Clearly, spending on all non-essential products and services was reduced. Nevertheless, with Covid-19 becoming more in the past, optimism levels are increasing.

The long-term effects of the COVID19-pandemic are uncertain, but the immediate impact on the retail industry is significant. There is a movement towards e-commerce. For the essential goods, it was important for the retailers to be able to deliver at home and take their services out of their brick-and-mortar stores as demand increased. The challenge for non-essential goods on the other hand, was to secure new ways to reach customers and give them the ability to shop from their homes. In the long-term, these new behaviours might become the new normal as customers become accustomed to these new ways of shopping (Roggeveen et al., 2020). According to Sharma et al. (2020), some changes in customer behaviour may not be permanent, although the adoption of digital and online shopping is likely to become a lasting trend even after the pandemic subsides.

McRae (2018) suggests that the line between online and offline shopping is becoming blurred. The technique of webrooming, searching online and purchasing offline, is becoming a widely used practice. As the online shopping revolution continues to reshape customer behaviour, high streets must adapt to remain relevant and attractive to shoppers (McRae, 2018). According to Adhi et al. (2019) customers prefer a shopping experience that is personalized in some way. This rising importance of personalization is evident from the fact that an increase of 5-15% in revenue can be directly attributed to successful implementation of personalization, with an additional improvement of 10-30% in marketing efficiency within a single channel (Chandra et al., 2022).

As the retail sector is experiencing a technological revolution, the number of smart retail technologies (SRTs) available is also growing. This gives retail service providers the potential to enhance the experience provided to the customer. According to Grewal et al. (2020), companies who are embracing these technologies to provide the customer with an upgraded experience are likely to be the most successful. By using these in-store technologies, the customer experience changes (Grewal et al., 2020). Technological changes and the widespread use of digital technologies are transforming the shopping experience and helping retail stores to stay in business. These changes and technologies could have significant implications for the traditional forms of retail, the brick-andmortar stores, and change the interaction with customers in their shopping process. A new buying context is created, which will increase the consumer's willingness to buy. The new environment is a merge of traditional elements and digital technologies, which is highly personalised and interactive. The improved in-store shopping experience provides a more profound interaction between the product and the customer, and the retailer can attract new categories of customers by having a positive impact on the existing ones (Caboni et al., 2019). It is important for retailers to accept the challenge of bringing technology and data together in the offline world. Leaders in retail should prepare their organizations to contribute to the store of the future, a technology-enabled revolution in customer experience and efficiency (Adhi et al., 2019). Retailers should carefully consider what will delight customers, by recognizing that they desire a convenient, easy, frictionless experience, as well as recognizing the consumers' desire for social presence (Grewal et al., 2020).

As technologies are evolving and customers are opting to purchase online, the offline retail sector suffers. Covid-19 brought about a change in customer behaviour that pushed consumers even more towards online retail under the circumstances of social distancing and lockdowns. Roggeveen et al. (2020) have pointed out the importance for retailers to understand the long-term changes in this customer behaviour, as retailers should know how to cope with this. Khayru (2021) argues that there is a need to understand the changes in consumer behaviour patterns due to the pandemic.

Customers do value personalised experiences and smart in-store technologies can provide this for them. Based on post-covid customer behaviour, retailers could rebuild their shopping experience according to the changing values. According to Riegger et al. (2022), a lack of investigation towards technology devices exists. Retailers are reluctant to implement smart in-store technologies, as they are concerned about the acceptance of customers towards the technologies (Willems et al., 2017).

Therefore, in this research the first objective is to develop a better understanding of post-covid behaviour. Going from this, the level of acceptance towards smart in-store technologies is indicated. The aim is to identify possible consumer patterns. Further research can be done departing from these patterns. This might provide retailers with ideas on how to implement smart in-store technologies in such ways it will enhance the shopping experience for customers.

Research motivation

Even though the world faced severe threats from the pandemic, research on changes in online as well as offline shopping patterns is difficult to find (Moon et al., 2021). Consumers were trying to adapt to the new normal, by changing their old habits. The reaction to this new situation is not the same for everyone and therefore it is important for retailers and manufacturers to understand how their own customers react the changes and develop customized and personalized marketing strategies. There is also a need to understand why, what and how behaviour patterns have changed due to the Covid-19 outbreak (Khayru, 2021). This is also highlighted by Roggeveen et al. (2020), there is a need for future research from a customer point of view, focusing on the short- and long-term impact of the pandemic on consumer behaviour. Retailers must be provided with guidelines on how to cope with these changes and get a good understanding on what types of experiences customers value in a store post-covid (Roggeveen et al., 2020).

Companies must rebuild their shopping experience according to the changing values, which might lead to a profitable revival. According to the study of Adih et al. (2019), 83% of customers prefers their shopping experience to be personalized in some way. This study also suggested that if personalization is done effectively, revenues in store can increase by 20 to 30 percent. It is a great time for retailers to think about emerging technologies into the offline world (Adih et al., 2019). Through high connectivity and interactivity, technologies can enhance the shopping experience and store atmospherics (Caboni et al., 2019). Nevertheless, technological innovation is a new phenomenon with its own challenges and debates. There are many smart technologies available to retailers, giving the possibility to create a new shopping experience. The growth of smart in-store technology makes it important for retailers to understand the reactions of the consumer to this new trend (Kim et al., 2017). Although technological innovation might have a big impact on the business

and affect the efficiency of the company, research into service innovation is scarce and there is a lack of consensus (Khaled et al., 2021). According to Völz et al. (2022), future studies should aim for a better understanding of the short- and long-term consequences and benefits of different SRTs and their implementation. Especially the perspective of customers calls for further research (Völz et al., 2022). Roy et al. (2018) argue the importance of understanding customers' decisions on whether to adopt SRT. As adopting smart technology systems is a long process and comes with high costs, retailers need to understand the drivers of customer adoption of SRTs. It is important to overcome any sort of resistance for a successful adoption (Roy et al., 2018).

Therefore, this research aims to understand customer behaviour in a post-covid era. As retailers foremost need to cope with the possible changes evoked by the Covid-19 pandemic. Retailers need to change customer experience according to the changing values of customers in their shopping experience. Therefore, it is a great time for retailers to implement technologies in the offline world. It is important for them to understand the acceptance or resistance of customers towards SRTs and implement them in the most effective way. This research aims to get a better understanding of the customers' point of view regarding SRTs.

This research will analyse new patterns regarding consumer behaviour, in an exploratory way. Based on these current preferences, the acceptance of smart in-store technologies will be explored and discussed.

Problem statement

The main research question is about the acceptance of smart in-store technologies. How will customers react to the use of smart in-store technologies to personalize their experience? Prior research has already mentioned that people like personalized shopping experiences and new technologies have the capacity to provide this (Adih et al., 2019). Thus, the main question of this research is: How do people perceive the use of smart in-store technologies in their offline shopping experience and why?

To fully explore this question, three additional questions are needed:

- 1. Does the trend towards online retail continues post-covid?
 - Which retail channels do customers use in the post-covid era and why?
 - Why do customers prefer either online or offline?
 - Why is webrooming commonly practiced by customers?

This will address the need for research towards the long-term impact on customer behaviour evoked by the Covid-19 pandemic.

- 2. Why do customers accept or resist SRTs?
 - Does it depend on the type of SRTs implemented?

- What is the impact of reduced human interaction? And why?
- What is the role of webrooming in a smart technology environment?

Based on these results, suggestions for retailers can be made on how to implement the smart in-store technologies and to which extent customers value these. When looking at current preferences an indication might be made on the advantages coming from the technologies.

Thus, by exploring channel decisions and their motivators, an indication can be made on consumer behaviour after the pandemic. It is important to understand this behaviour, because it is the starting point to explore acceptance of smart in-store technologies. Combining these objectives, patterns in customer behaviour might be discovered.

Contribution

This study contributes to the need for research on long-term customer behaviour and whether the customers of the future are accepting towards the implementation of SRTs. First, the research on long-term effects of Covid-19 on consumer behaviour is just starting to gain ground. This research might offer some leads to future research regarding post-covid consumer behaviour. Looking into consumers' post-covid behaviour can give indications on the future behaviour and what it might grow into. Furthermore, the multi-channel approach gives an idea on whether people are comfortable going outside for shopping, rather than staying at home out of safety measures. As smart technologies were easily accepted in the online shopping experience as they gave the opportunity to shop from home during the lockdown restrictions of Covid-19. Will they also be accepted in the offline shopping experience in the long-term? Or do people stick to their new online consumer behaviour?

Secondly, the research argues what aspects of the offline shopping experience should be personalized. Smart in-store technologies create an opportunity to personalize the experience. Although smart technologies gained prominence starting from 2010, retailers only now start to learn about them. From a marketing point of view, it is important to learn about the challenges of the technologies and what to look for when implementing them.

Approach

The research is conducted from a customer point of view, which will help retailers to cope with the changes evoked by the IR 4.0 and accelerated by the Covid-19 pandemic. By first understanding the why and how of the current shopping patterns and preferences of the participants, this study will identify what is important in using smart in-store technologies, and how they can adapt to the current preferences. As the importance of a personalized shopping experience is already suggested, it is now important to know how to achieve this and what the reactions are regarding smart in-store technologies. By looking at what motivates people to either shop online or offline, or through multichannel approaches, this study tries to understand their reactions to smart in-store technologies. With the use of some described situations involving smart in-store technologies these ideas get more depth and explanation.

Literature review

The rise of online retail

The development of untact technology has gained ground during the transition in the IR 4.0. "Untact" service are enabled by smart digital devices and advanced technologies, facilitating customer encounters without the need for face-to-face interaction with employees (Lee et al., 2020). Also, the increased availability of smart phones in the 2000's dramatically increased online consumption (Moon et al., 2021).

In 2013, the IR 4.0 gained ground in Germany. This revolution is based on the concept of smart factory, where the machines are integrated with men through cyber-physical systems. The most important element is digitalization, as this enables man and technology to connect. The revolution evoked a radical transformation of traditional industries that need to adapt. Cyber and physical dimensions are in complete integration (Petrillo et al., 2018). Figure 1 presents the Industrial Revolution through the 5 stages that it has run and is running through:



Figure 1, Petrillo et al., 2018

The buying patterns of consumers have evolved from traditional digital purchases to online or mobile channels due to consumers' easy access to digital technology as well as the availability of world markets with this technology. Both smart digital devices and technology have enabled the service industry to provide services with precision and allow consumers to interact with service providers without ever having to meet face-to-face (Moon et al., 2021). IR 4.0 has impacted many industries, online retail being one of them. The sector got impacted in several ways. First, automation technologies (Artificial Intelligence and machine learning) have made it possible to create algorithms providing customers with personalized recommendations, predictions and dynamic pricing strategies. This optimizes the customer experience profoundly as it makes informed decisions on how to personalize to match the customers' needs and preferences. These artificial intelligence techniques enable significant competitive advantages by supporting decision-making tasks by delegating them to software systems. The information generated through these techniques, especially machine learning algorithms, helps by providing personal information, upgrading the shopping experience, predicting trends etc. (Pereira et al., 2022). Secondly, Internet of Things has the potential to disrupt the traditional retail processes significantly and take online business to new heights. It is a powerful data network, "a clever set of networks that connects everything to the Internet to exchange data and conveying the data through digital gadgets as per protocols". Customers more and more expect an omnichannel experience, providing them with the right information wherever and whenever they want. This location-based innovation enables retailers to follow the customer and view their destination in the online store and improve their shopping experience based on this (Hossain et al., 2021). According to Chandra et al. (2022), technologies (AI, machine learning, augmented reality) and social media contribute to the creation of seamless relational exchanges.

As a third point, customers can try on products in virtual reality, visualize item in their own homes, all because of Augmented and Virtual Reality (AR/VR). These two concepts emerged as rapidly developing technologies (Bonetti et al., 2018). They have a great impact on online retailing as it takes uncertainty away when purchasing and get the customer more engaged. It provides the retailers with a competitive advantage, improving the interaction with the customer (Zhang, 2020).

As a fourth point blockchain technology has emerged, ensuring transparency and traceability in online retail. Blockchain allows two parties to transact directly using duplicate, linked ledgers. This way transactions are more transparent. Correlated to this transparency is traceability; the ability to identify and verify the components and chronology of events in all steps of a process chain (Francisco et al., 2018).

Lastly, IR 4.0 technologies enable retailers to personalize the customer experience. According to Zanker et al. (2019), personalization embeds the application of technologies as AI and machine learning. A personalized experience is cocreated between retailer and customer. Customer engagement often is a part of personalization, which is created through AR and VR (Bonetti et al., 2018).

The IR 4.0 brought many opportunities and challenges for the online retail. The technologies create a new, personalized, customer-centric environment in online retail. Before the present COVID-19 crisis, online retailing was in an upward trajectory facilitated by digital e-payment (Roggeveen, 2020). The economic crisis has impacted several sectors to bankruptcy and rising unemployment, but however some sectors, such as e-commerce, have increased in sales (Khayru, 2021).

Acceleration by Covid-19

The transition from the local stores to an online environment with retailers for daily requirements provided valuable experience during Covid-19 lockdowns. Social distancing and noncontact were key in this period, so the virtual shopping with zero contact delivery was a perfect fit to these restrictions. During this period, the brick-mortar traditional shopping model has rightly been replaced by online-virtual shopping (Redda et al., 2021). The traditional perspective on the organization of the retail sector was already under scrutiny and examples of physical stores in decline were plentiful. On one side hypermobility caused people to broaden their range to visit a physical store. On the other side, online shopping erased the concept of "range" as a measure of distance, causing a revision of retail strategies (Beckers, 2021). Because of the increase in online sales, retailers started to close their physical stores and shifted to online presence. As Covid-19 entered, more stores closed permanently or temporarily. These shifts caused consumers to change their behaviours. Customers are becoming more reluctant towards shopping in-store. Intentions of adapting to new technology increased during Covid-19 (Ngoh, 2022). The restrictions opposed by the pandemic have temporarily ended the notion of hypermobility, as people were bound to their homes (Beckers, 2021). Covid-19 was the catalyst of an important change towards the online environment. This brought opportunities for traditional businesses, large markets and disruptive business models to thrive. Many people started buying and selling online and became online customer base (Khayru, 2021). According to Beckers et al. (2021), Covid-19 pandemic holds ample opportunities for an increase in e-retail accessibility, but a lack of professionalism might prevent local retailers to retain a share of the expanded online market. Local retailers are more vulnerable for the impacts, given their limited online presence and size. Large online retailers and omnichannel retail franchises can capitalize on their business models, while small businesses with only a physical presence are forced to consider the opening of an online channel as it seems they experience the greatest losses in revenue and profits in this pandemic. This could well mean the final blow for local brick and mortar shops if, as is predicted, the share of online shopping in total retail expenditure remains high after the pandemic (Beckers et al., 2021).

Due to the pandemic, several governments have locked down their borders and most have imposed restrictions to civilian life, in hopes of containing the outbreak. To hold off further spread of the virus, social distancing was of high importance (Khayru, 2021). The spread of Covid-19 changed the life of human beings. Different measures, besides social distancing, were taken: lockdowns and self-isolation. To stay connected with friends and family and to stay entertained, digital platforms were the best option. The pandemic brought a need, and digital platforms gave the solution to many problems (Galhotra et al., 2020). Online shopping, being a network of linked computers that enables millions of people to communicate, search for information and purchase various goods and services, is the preferred channel during these times. Through online shopping, consumers gain the ability to shop when and where they are comfortable. The preference towards online shopping has increased under the conditions of the Covid-19 pandemic. The Internet has become the most important communication channel in the world, changing the consumer purchasing process as the result of a speedy and improved access to the Internet (Yadav et al., 2020). The COVID-19 pandemic has accelerated the adoption of online activities, leading to significant increases in online purchases, digital consumption, and average online cart sizes (Khayry, 2021).

According to Sheth (2020), Covid-19 had an immediate impact on consumption behaviour in two relevant ways:

1. Embracing digital technology: Out of necessity, consumers have accepted and adopted new technologies and their applications. In times of social distancing, the use of technology made it possible to connect with family and friends. The impact of digital technology on consumer behaviour is massive in scale and pervasive in the daily life of consumers.

2. Store comes home: Lockdowns have caused a break in the odd habits of going to brick and mortar stores. Home delivery of everything is becoming the new normal. This enhances convenience and personalization in consumer behaviour.

As consumer behaviour changed during the pandemic. This accelerated the trends that were already visible before Covid-19. Retailers should plan for this new normal. Therefore, the assessment of both short- and long-term impacts of Covid-19 on consumer behaviour is important (Beckers, 2021). Both during and after the pandemic, companies should be able to target all groups (Khayru, 2021). While the long-term effects of COVID-19 are yet to be determined, its immediate impact on retailing is significant. Retailers of both essential and non-essential goods are each facing their own challenges in these times. The demand for essential goods being delivered at home has increased tremendously. These retailers mostly face challenges regarding their inventory, supply chain management, delivery and making their facilities safe places. The sales of non-essential goods have dropped, forcing retailers to adopt new ways to reach and engage with customers. Ultimately product mixes are being changed to suit the rising demand from the crisis, for example apparel retailers start producing face masks. The immediate impact, short term, is important for retailers, but on the other hand it is important to think about the what the landscape looks like after the pandemic. Consumers are taking on new habits, when learning about online retail in a fast forward speed. Customers are likely to become accustomed to these new ways of shopping (Roggeveen, 2020).

Post-covid?

According to Sheth (2020), new habits are created through three factors: public policy, technology and the changing demographics. Public policy are habits such as airport security. The government policy is important in encouraging or discouraging consumptions to shape future consumption. Technology has changed consumer behaviour significantly. The IR 4.0 was the driving force behind this. Wants are changed into needs, this creates new habits such as online shopping, dating or anything. In changing demographics two shifts are important: the aging population in advanced economies and the increasing trend of living alone by choice (Sheth, 2020).

As consumers are getting used to shopping or doing activities online, with minimal physical contact, this change is predicted to permanently shape new behaviours and habits (Khayru, 2021). The same is argued by Sharma (2020), some changes in consumer behaviour might not be permanent, although the adoption of digital and online shopping is expected to be a lasting trend. Sheth (2020) explains that the measures, taken considering the Covid-19 pandemic, have disrupted the habits of consumers on buying and shopping. Consumers needed to improvise and adapt their habits to the new regulations. Consumers' choice of the place to shop is restricted. The new habits created by the lockdown conditions of covid-19 are seen as an alternative that is more convenient, affordable, and accessible. Nevertheless, it is expected that most habits will return to normal (Sheth, 2020). On the contrary, Khayru (2021) argues that people who became online customers during the pandemic are inclined to continue shopping online even as physical stores reopen.

Covid-19 has brought a change, no amount of advertising by brands could do: it changed the consumers' preferences almost overnight. Changing preferences of consumers is everything but

easy, but an outbreak of this kind has changed minds faster than any brand could have imagined (Shah, 2021).

Challenges and opportunities for offline retail

Offline retail faces many challenges. Such as the fear of being displaced from the market, competition with online businesses, employability concerns, reduced foot traffic, suffering from online sales season... These factors convince consumers to change from offline to online retail (Duggal et al., 2022). Although online stores cannot provide all the needs of consumers like those in traditional/physical stores. These needs include the see, touch and feel of the quality of the product directly (Sayyida, 2021).

Offline retail faces a flat line in their sales productivity, as they are struggling in assuring their new position in a multi-channel world. To gain relevance, they need to come up with differentiating values (Willems et al., 2017). Online and offline retailing differ structurally in both offerings and approaches. The big advantage offline retail holds over online, is their service experience. From the interaction between frontline staff and customers, possible strong customer relationships can be built. In short, according to Duggal et al. (2022) the salvation of the offline retail lies in the approach by focusing on improving interactions with customers, understanding what they need and build a customer-centric mindset. Offline retailers should build their advantage on human interactions. By leveraging interactions, they should build social capital (Duggal et al., 2022). Willems et al. (2017) argue that the use of technologies could meet the need for a differentiating value, as it allows offline retailers to go along with the digital revolution that is shaping the digital landscape. Smart in-store technologies can enhance customers' shopping experience, specifically the more advanced technologies such as virtual and augmented reality. The technologies can influence customer behaviour in the store, increasing the store appeal and increasing customer satisfaction (Willems et al., 2017).

Although e-commerce is rising, the largest share of sales is still accounted to brick-and-mortar stores. Nevertheless, retailers still need to take the benefits customers receive from online retailing experiences into account. One of the current challenges of brick-and-mortar stores is the accessibility. Go-stores offer 24/7 accessibility as an answer to this challenge. Therefor, the concept of smart retailing is a possible answer to the challenges of offline retail (Völz et al., 2022).

Webrooming

Experts expect the changes in customer behaviour during the pandemic to continue. Customers get used to shop anytime and anywhere and purchases being delivered to their doorstep without dealing with the crowdedness in store. However, despite the popularity of e-commerce, most sales are still created in physical stores. This might suggest for collaboration between the online and offline retail, to provide for the best shopping experience (Völz et al., 2022). Besides the shift from offline to online, another new pattern is gaining ground. Webrooming might become an even more common practice among shoppers. In the past, shopping journeys mostly took place within a single channel, either physical or online. Consumers are increasingly adopting multi-channel approaches. The evolving consumer behaviour is not only one single route. The notion that online retail is on a path to destroy the offline retail is being nuanced. The transformation happening is more complicated and diverse. It is important to understand the complex interplay in the contemporary retail environment (Aw et al., 2021). The notion of "webrooming" becoming a prominent pattern in consumer behaviour shows that consumers are looking for a balance between the convenience of online searching and the tangible experience of physical stores. As a retailer, being able to navigate through this multi-channel landscape, will give competitive advantage (Aw et al., 2021). One of the main drivers of this multi-channel approaches on shopping behaviour is technology. This has always been the main role in the evolution of retailing. The present digital era allows brick-and-mortar stores to elevate the shopping experience through technological developments. There are several areas they can draw upon to gain competitive advantage on online retail (Willems et al., 2017).

Smart technologies enable smart retail-driven personalization, designed to improve customer experience and encourage certain shopping behaviours, such as browsing the store longer (Riegger, et al., 2022). According to Chandra et al. (2022), personalization in marketing can be defined as: "the action of designing and producing in ways that resonate with customer preferences". Personalization can reduce the tiredness of customers in making choices and help them choose faster and more efficient. Personalization is becoming more important (Chandra et al., 2022). Personalization is a targeted marketing strategy at an individual level, in which the consumer takes a passive role, all personalization efforts are initiated by the company. The key word in personalization is "relevance". All offers must contain content that is of customer's interests and addresses needs to customers. Traditional, face-to-face personalization is based on real-time data which employees adapt their behaviour to. Online personalization on the other hand is based on past-time data, the customers' past behaviour. Customer-facing technologies is a combination of both traditional and online personalization. The combination provides customers with relevant, context-specific information at the point of sale (Riegger et al., 2022).

Reactions of customers

According to Inman et al. (2017), the excitement on the side of managers often leads them to forgetting that customers might not be as receptive as they think. On the other hand, Willems et al. (2017) argue that retailers are reluctant towards adopting technologies in their brick-and-mortar store, because of their concerns towards the acceptance of technology by customers. Riegger et al. (2022) explain that the reaction of customers towards smart in-store technologies can go two ways. Customers can react favourable to better matches offered according to their preferences, reduced search costs and diminished risk of information overload or they react unfavourable, because of privacy concerns, risk perceptions and feelings of vulnerability. This reflects the personalization-privacy paradox: consumers value the benefits, but also perceive risk of privacy breaches. Personalization has shown to be increasing sales, but privacy concerns can have a negative impact

on purchase behaviour. These implications make it difficult to predict customers' reactions (Riegger et al., 2022). According to research by Völz et al. (2022), customer acceptance risk is a crucial factor in retail technology adoption. This is influenced by perceived usefulness, ease of use, and evaluation of how personal data is handled while using SRTs. The customer acceptance risk is closely connected with privacy concerns. The risk of customer acceptance. The use of mobile apps is widespread and potential issues rise in case of app tracking. Privacy concerns rise when the customer is aware of their purchases and behaviour being tracked. In the case of smart mirrors and fitting rooms, the choices of the customers are tracked and not the purchase, which reduces privacy concerns. When tracking is an essential part to enable respective functionalities of SRTs (i.e. self check-out stations), privacy concerns rise. The biggest challenge in connection with integration of SRTs is manipulative behaviour by retailers in the form of harassing notifications or excessive data collection (Völz et al., 2022). All innovations face some form of consumer resistance. For retailers it is important to overcome this resistance for successful adoption of SRTs (Roy et al., 2018).

Summary

The shift from offline to online, which is largely boosted by the Covid-19 pandemic, and the rising multi-channel approaches, force offline retailers to search for ways to secure their position in this changing retail landscape. McRae (2018) argues that the high streets need to become destinations that offer enjoyable experiences to shoppers. They must adapt to stay relevant and appealing to shoppers (McRae, 2018). According to Aw (2021), the change of consumers to a multichannel approach brought about a shift in consumer expectations and preferences. This sheds light on the need for retailers to adapt to these new patterns. Retailers should not only embrace multichannel strategies, but also understand how consumers navigate these channels. This provides them with the ability to give customers a seamless and satisfying shopping experience considering their preferences (Aw et al., 2021). Riegger et al. (2022) and Willems et al. (2017) argue that smart instore technologies can offer ways to offline retailers to secure their position in this changing retail landscape driven by technology. Nevertheless, retailers are reluctant to adopt these technologies. Concerns about customers being sceptical about privacy rise (Riegger et al., 2022; Willems et al., 2017). The widespread adoption and benefits of SRTs call for more in-depth research. According to Roy et al. (2018), there is a lack of research concerning the customer adoption of SRTs and the influence SRTs have on customer behaviour. Ignoring this gap causes not really understanding customers' decision whether to adopt SRT (Roy et al., 2018).

This research aims to understand the new patterns retailers are currently adapting to. As retailers struggle to stay relevant in the offline retail, they need to gain competitive advantage. Smart technologies can provide this advantage, but it is important to understand the reaction of the customer when implementing these technologies. Therefore, understanding customers' reactions towards smart technologies is the second aim of this research.

Research design

The first objective of this exploratory research is to examine the current post-covid preferences regarding channels used for buying. Research to the long-term effects of Covid-19 is necessary to understand whether the trends on customer behaviour during Covid-19 are still going. The second objective is to assess the acceptance of customer towards smart in-store technologies, as they can enhance multi-channel approaches and are able to elevate the in-store shopping experience.

Sample choice and method

For this research a qualitative approach is the best fit. As this topic is relatively new and upcoming, it would be more appropriate to hear about the participants' opinions and thoughts, than to measure certain factors. As well for the post-covid customer behaviour as the smart in-store technologies, arguments rise for the need of an exploratory research, rather than quantitative research.

There is not much experience with smart in-store technologies in the strict sense of the word. According to SAP: "Smart stores are built on smart technologies that streamline and personalize shopping experiences while also automating mundane and repetitive tasks." These technologies include smart mirrors, smart carts, smart shelves, retail robots, "just walk out" technology, mobile POS and real-time inventory. Taking this definition and approach, it is a futuristic and hypothetical topic, especially when researching this in Belgium, where experiments with these technologies serving people, are very scarce. When taking a broader view on the topic, talking about the use of apps connected with the offline store, screens and self-scan points, it is more accessible. Besides smart technologies, the shift to online retail has only recently taken an acceleration with the pandemic. As many literatures has suggested it is important to look for the long-term effects on retail evoked by the recent pandemic. This will provide retailers with insights on how to cope with these changes (Sheth, 2020; Roggeveen, 2020; Beckers, 2021).

When choosing for a qualitative approach, it is best to combine ideas and opinions, and to let participants influence one another, given the scarce experiences with the topic. Therefore, a focus group was the best way to gain as much information as possible. Participants can debate, influence each other and re-evaluate their own opinion when hearing the others. The aim of focus group sessions is to obtain respondents' impressions, interpretations and opinions, as they are talking about the event, concept, product or service. An important note: as the members are not selected scientifically to reflect the opinions of the population at large, their opinions cannot be truly representative. Focus groups serve as exploratory research as a base for further research.²

For this research, secondary data is gathered from previous literature. This data is used as an indication of the current situation and the reason for online retail being more prominently used by consumers. In this research, primary data from participants is gathered during two focus groups at two different times. The population is: anyone buying through multiple channels. The sampling

 $^{^2}$ Bougie, U. (2008). Research methods for business (8ste editie). Wiley. http://197.156.112.159/handle/123456789/1451

frame is: people from Belgium in my far and close circle, who are from the Gen Z generation. The participants are selected by purposeful sampling. As the goal is to gain information and analyse indepth, the participants are chosen based on their generation and whether they are multi-channel consumers. All the participants are from Gen Z, as they are known as digital natives. According to McKinsey and Company (2023), it is the first generation to grow up with the Internet as a part of their daily life. They grew up not knowing a world without the Internet. They adopt easy to new technologies and are open to them. Gen Z covers 40% of the world's biggest markets. They have own buying power and an influence on the expenses of their parents.³ For the objective of this research, they are the perfect fit. Gen Z is defined to be born between 1997 and 2012.⁴

Therefore, I selected the participants with purposeful sampling according to the following conditions:

- Gen Z (preferably older Gen Z);
- Able to buy own products (having some sort of income, student job is sufficient);
- Using multiple channels when buying;
- Willing to share opinions and thoughts about the topic.

In total 14 participants joined the focus groups. Eight in the first one, six on the second focus group. Typically, a focus group consists of eight to ten participants. Due to time constraints and the direct availability of useful participants, the second focus group was smaller. As this one was used to get more insight based on the first focus group, six participants should be sufficient to gather some prelaminar ideas for further research.

	Participants	Gender	Age
Focus group 1	1	Female	23
	2	Female	24
	3	Male	22
	4	Male	22
	5	Female	23
	6	Male	25
	7	Female	23
	8	Male	22
Focus group 2	9	Male	24
	10	Female	23
	11	Female	22
	12	Male	23
	13	Female	25
	14	Male	24

³ Ubels, D. (2017, 8 september). *Generation Z: De ongrijpbare generatie - MarketingFacts*. Marketingfacts. https://www.marketingfacts.nl/berichten/generation-z-de-ongrijpbare-generatie/

⁴ Pew Research Center. (2023, 22 mei). *Where Millennials end and Generation Z begins* | *Pew Research Center*. https://www.pewresearch.org/short-reads/2019/01/17/where-millennials-end-and-generation-z-begins/

The demographic range of the participants was between the age of 22 and 25, which is born between 1998 and 2001. I've opted for this demographic range, because at this age, people can do their own purchases and are more familiar with different segments of products. The younger Gen Z might have a less elaborate opinion and vision on the research topic. The presence of a certain income was checked beforehand, as this is most likely to be the case, but not a certainty. The chances of rich information were higher in this narrower age category.

The genders (only the gender male and female taken in consideration) are equally divided. The first group was divided into four males and four females. The average age of the male participants was 22,75, for the female group this was 23,25 (figure 2). As we are talking about age, we can say that the average age for both genders was 23. The second group consisted of three males and three females. For the female group the average age was 23,33 and for the male group 23,66. As we are speaking about age, the average ages are 23 and 24 (Figure 3).



Research execution

As the nature of the research is exploratory and my knowledge of the subject solely depends on literature, I opted to organize 2 focus groups. With the technique of laddering, it is possible to get a thorough understanding of why certain behaviours are present. The first focus group is to get a general view on how customers make channel decisions and based on what factors. It is also used for a first understanding on their acceptance towards smart in-store technologies. The second focus group is to get a better insight in the acceptance or resistance towards smart in-store technologies and possible concerns of the participants.

For both, I used an interview guideline with prepared questions. The method of "laddering" was mostly used.

Topics guideline:

- Current post-covid shopping behaviour: As indicated by Khayru (2021), Roggeveen et al. (2020) and Moon et al. (2021), research on post-covid customer behaviour is necessary.
- 2. Smart in-store technologies: According to Riegger et al. (2022) and Willems et al. (2017), it is difficult to predict customers' reactions towards smart in-store technologies. Therefore, this is an important topic for the research.
- 3. Webrooming: According to Willems et al. (2017), smart technologies are the drivers of multichannel approaches, such as webrooming.
- 4. Interactions: Duggal et al. (2022) argue that the salvation of the offline retail lies in human interactions.

In the first focus group, I started by asking about current shopping behaviour, preferences, and satisfaction from shopping. For current shopping behaviour I asked about whether they were shopping on- or offline, what products they mostly purchase through which channel, and which transportation they use. Preferences was kind of the same, but then I asked more about which kind of stores they prefer (store chains, local stores...). For satisfaction, the purpose was to have a basic idea on when they were satisfied with their shopping experience. These questions were mostly used to get a general idea on the participants' post-covid consumer behaviour and what they value, which is useful when going more into detail to understand where they are coming from. This was necessary to get a good understanding of the consumer behaviour from the participants to be able to assess the acceptance of smart in-store technologies afterwards. I specifically didn't ask about their concerns towards Covid-19 when shopping offline to not push them in certain ways.

For the next part, I mainly focused on the online shopping experience. I asked about the (dis)advantages of online shopping, why they prefer online, why they dislike it, for which products they mostly shop online. From this debate I started to get some insights. Then I asked them purely about offline or in-store shopping. I used the same questions as for the online experience, to make a good comparison. Lastly, I asked them to make this comparison for me. Meaning that they had to combine both online and offline and give their likes and dislikes comparing both channels. This question is basically the same as I asked for on- and offline separately, but it was more nuanced as the purpose is to compare the two.

For the third part, I went into detail about the shift from offline to online and asked if it might be reversed using smart in-store technologies. This part consisted of 3 separated topics.

 Smart in-store technologies: I used a few scenarios, because of the nature of the topic. It is difficult to really speak from experiences, so these scenarios would give an idea on the topic and would give them a little help in forming their opinions. I asked whether they would like the different scenarios which described smart in-store technologies and why they (dis)liked them. The scenarios were discussed and as they were answering I asked some unprepared questions to get a better idea on their thoughts.

- 2. Webrooming: With this topic, the objective was to gain some insights on a multichannel approach and how this would or wouldn't benefit the store. Webrooming is the act of searching online and purchasing offline. I asked whether they practiced this, what the (dis)advantages are, what important was for them and when looking online whether they paid importance to online reviews from others or only about product facts and why. Lastly, I asked about the importance of the connection between the online and offline store, for example with an app making a seamless shopping experience.
- 3. **Interactions**: Integrating smart in-store technologies, would mean less human interaction. With this part I wanted to get a view on how important this human interaction still is, certainly in the post-covid period.

After the focus group took place, a transcript was made. From this transcript, data was reduced by coding. The data was displayed in a matrix, indicating which former preferences lead to which kind of acceptance of smart in-store technologies. From there the results were written and explained in the following chapter. These results indicated that a more extent view on the third part (smart in-store technologies) was needed.

In the second focus group, I started again by getting a general view on the customers' current behaviour towards shopping. Specific, I asked about preferences towards which channels, whether multi-channel approaches are used and (dis)advantages about on- and offline shopping.

For the second part, I zoomed in on the smart in-store technologies through questions about personalization online or offline and what they value most in this. I talked about examples of shopping experiences with smart in-store technologies and asked them to evaluate this situation.

The second focus group was analysed in the same ways as the first focus group. Coding was used to reduce data and then put in a matrix to draw conclusions.

Results

The goal of this research is to understand why customers prefer online or offline post-covid and gain insights on whether customer behaviour is changing post-covid. It is important to understand the current post-covid customer behaviour, as this is the behaviour retailers are currently cope with. From there on the acceptance or resistance towards smart in-store technologies is analyzed. What do customers think about the implementation of smart technologies in their shopping experience in store?

Post-covid customer behaviour

The analysis of the data from the focus groups has shown that online shopping remains very attractive and is frequently used by the participants. They experience online shopping as convenient, less time consuming, easier, and more accessible. Just a few participants mentioned to prefer offline shopping, but they also tend to move towards online for specific purchases. Some basic statements about their channel usage were made:

"I shop clothes online. There is more choice, a bigger offer and you're able to fit them with clothes already owned." (Interviewee 10)

"Everything offline, only some specific things online." (Interviewee 9)

This table provides an overview of the drivers to decide on a certain channel. For online retail the drivers are clear and convincing, in offline retail the term drivers is not a perfect fit as it concerns factors that keep offline retail attractive, but are not necessarily convincing.

Channel decisions			
Drivers online	<u>"Drivers" offline</u>		
Convenience, because:	Atmosphere:		
- Less time consuming	- Look and feel		
- No opening hours	- Advice		
- Accessibility (distance)	- Music		
	- Display		
Often free delivery and return	Immediate purchase		
	Type of product: high price and not easy to		
	return		

In the next paragraph, the drivers in the table are explained.

An important note to make is that Covid-19 concerns towards health and not being able to always keep a certain distance towards other customers were not mentioned once by the participants.

According to Sheth (2020), the concept of "store comes home" largely discovered during the pandemic, has enhanced the convenience in consumer behaviour. This is also mentioned by the

participants in this research. For working people, the opening hours of the stores are not practical. Most shops close at 6pm, so it is almost impossible to visit them after working hours. On the weekends or when they have a day off, they might plan a shopping day, but only when they have the time, and they are free of other obligations.

"I'm working and newly living together with my boyfriend; do I want to spend that one free day in the weekend by strolling around the city and shopping offline? I'm not sure, it is not relaxing to me anymore. I don't find peace in the crowded, chaotic stores." (Interviewee 2)

One participant named another important factor: distance, or even more accurate, accessibility. When she stayed with her boyfriend, who lives in the city, she tends to shop more offline than when she is at home further away from the stores. Going to the city centre to shop is seen as a trip they are not willing to make when just needing a certain product.

"When you go to shop in the city, you first must park, then walk for some time. It is not convenient when you just need one thing." (Interviewee 12)

Whether the shops are accessible by car or by public transport did not matter to most of the participants. Most of them agreed that accessibility by public transport is sufficient, only one did not.

"If I go on a shopping day, I want to be able to put the bags in the car from time to time. This is not possible when taking the bus or train or when parking space nearby is not available." (Interviewee 7)

She stated that by car is the most convenient way of traveling to the stores. She preferred the shops that were accessible by car and not closed in a city centre where traffic is not allowed. Another female participant agreed on this opinion:

"When I go shopping, I go to stores that have parking space at the store. It is more relaxing and less hectic." (Interviewee 2)

Especially the male participants don't mind taking public transport for shopping in-store. This makes it easier and cheaper to travel than going by car and having to pay high prices for parking space.

"Public transport is available, why not just use it? That is perfectly fine by me." (Interviewee 8)

Packages are mostly delivered and returned for free these days, which makes it even more convenient to shop from your home during busy days and long working hours. This might make the decision to stay at home and shop online even more logical. On the contrary, they mentioned that returning packages can be more time consuming.

"I order two sizes, fit them at home and send the one who does not fit back." (Interviewee

"When sizes are wrong, you need to return the clothes. That is extra work." (Interviewee

11)

1)

The participants were not really concerned about their large environmental footprint. Waste on the other hand was a concern that did influence the decision to buy online.

"I once did an assignment for "Company X" and I discovered that when people send back shoes, they are just thrown away instead of bringing them back in circulation. This made me more aware of the consequences of online shopping and is also the reason why I never send items back when shopping online." (Interviewee 4)

A factor making offline retail more attractive is the look and feel experienced inside the stores. Some participants mentioned that they do like to feel the clothes, to smell the store, to hear the music and to get the advice from the employees. Not only in the store itself, but also in the environment around the store. Some enjoyed being in the city to stroll from store to store. Other participants do not pay attention to the atmosphere of the stores. They use offline stores when they need to purchase something immediately.

"It is nice to take a break at a fun cafe from time to time." (Interviewee 4)

"I like going around the city and look for things. (Interviewee 14)

"When I go to the store, I just need something specific. The atmosphere at the store is not important to me then." (Interviewee 12)

Nevertheless, there are some implications made.

According to the participants, it is important to have one concept and create one brand where people recognize and appreciate the stores by. Therefore, combining the music, lighting, and background colours into one theme and making the store easy to overview creates a more enjoyable environment for shopping. The smaller local stores were mentioned as being nice and relaxing to shop, as they are more aware of their offline image than their online website and they create one brand and image around their store. Stores being messy and crowded are seen as unpleasant and not inviting by the participants.

"Even if the little local shops had great online websites, I would still go there for the experience in the store and the excitement it brings me." (Interviewee 13)

"There are no pros to bigger store chains. Long waiting lines for fitting rooms, crowded stores, chaos." (Interviewee 10)

The participants value the local businesses and want to support them, but due to their low online presence it is not always convenient to do. This is argued by Beckers et al. (2021), claiming that local retailers are more vulnerable for the impacts of Covid-19, given their limited online presence and size. Local retailers are forced to open an online channel, which according to Beckers et al. (2021), could mean the final blow of brick-and-mortar stores. The participants mentioned that for the offline retail, they prefer the local retailers as they are more aware of their offline presence. For the bigger store chains on the other hand, it is preferred to shop online as they get more crowded and messier. Besides, when looking online, it is viewed as easier when something specific is already in mind. Browsing through the wide online offer of a big store is almost an endless task. Therefore,

good filters are appreciated to make a better and easier-to-use website. As there is not something specific in mind, it is easy to walk through a big store and get some ideas.

"When I got something specific in my head, I search for it online. Otherwise, I stroll through the store. It is more difficult to search a website than a store, when you have no vision yet." (Interviewee 6)

The advice provided by the employees at the store is a trickier point. The opinions were divided. The participants who tend to shop more at local stores and small boutiques appreciate getting advice and getting clothes handed by the employees.

"I stopped visiting a store, when the lady, who always helped me and recommended items, got fired. The other people did not give advice and did not help me, so I was not interested anymore in going there." (Interviewee 7)

Other participants just wanted to do their thing and will approach someone when they need help, but do not want to feel the pressure of an employee watching over your shoulder. They appreciate knowing that they can ask for help, but not feeling the pressure or obligation to do so.

"I often feel as if the advice is based on making me spend money, instead of the truth. This makes me uncomfortable." (Interviewee 2)

For certain products (e.g., electronics), where a certain expertise is needed to assess the products and decide which one is the best fit, advice is appreciated.

"When looking for a laptop or phone, it is nice to get an explanation when you are not familiar with the terms." (Interviewee 3)

Sharma (2020) argues that some changes in consumer behaviour might not be permanent, although the adoption of digital and online shopping is expected to be a lasting trend. The participants mainly shop online, but for certain products or price ranges they prefer offline. The sort of product combined with the price turned out to be a significant factor. Products that are not easy to retour, such as furniture, are mostly bought in-store. It is important to see and feel these products. They also tend to be a bigger investment, so choosing the right product in real life is important. Also, luxury products, for example designer bags, which are expensive comparing to the more accessible brands, are not easily bought online. The need to see the product beforehand and the fear of losing the product in the mail influence the decision to buy these products offline.

"I live in the city centre and the mailman always puts my packages at my doorstep, for everyone to grab." (Interviewee 7)

Multi-channel approaches are used by the participants. All the participants use more channels when shopping. Webrooming was mentioned by several participants, who practiced this. This approach is mostly used when looking for a specific product or item.

"When I want to buy electronics, I look at online reviews and product information before going to the store to buy it." (Interviewee 14)

A seamless connection between the app of the store and the in-store environment was of uttermost importance.

"Easier to pick up thoughts from home at the store." (Interviewee 5)

The participants already experienced advantages from a good connection between the app and the in-store experience. In case of a bad connection, participants discover irritation and feel unsatisfied with their shopping experience.

"If you put something in the shopping cart of your "Company X" app, it indicates where it is located in-store when entering." (Interviewee 10)

The convenience of online shopping, largely discovered during the Covid-19 pandemic, remains very attractive. The participants find it a better fit in their personal and work lives. The opening hours of stores and the business in the stores do not comply with their life. Being able to shop at anytime and anywhere from the quietness at home is appealing. The opportunities brought by online retail are numerous and appreciated by customers. Shopping in store often brings irritation and is not seen as relaxing. Therefore, the look and feel in the stores is of importance when shopping offline. The more local retailers are preferred as they are aware of their offline presence. Another concern is the sometimes uncalled for, advice given by employees. Advice and interruption of the shopping experience is not appreciated by everyone to the same extent.

The following table provides a summary of the results:

Convenience is the main driver for customers when choosing a channel. Therefore, they tend to shop online.

Certain products, depending on the price and the type of product, are preferred to be bought offline. As the price of products get higher, so does the fear of product loss during transportation. As the product is bigger, it becomes more difficult and time consuming to return.

In offline retail, the local retailers are preferred. In online retail, the bigger store chains are preferred. Both because of the awareness of their offline or online presence. This awareness creates a more enjoyable shopping experience (good filters in the online web shop, inviting offline atmosphere).

Given their current shopping behaviour, how do the participants think about the implementation of smart in-store technologies?

Smart in-store technologies

To make the subject more tangible during the focus group, scenarios with smart in-store technologies are used. The participants gave their opinions and thoughts on these scenarios. Based on these opinions, an analysis is made on what customers think about the implementation of smart technologies in their in-store shopping experience.

When asking the group about the implementation of robotics, a division arose. Part of the group preferred human interaction. These participants were the ones who value and appreciate advice given by employees. They doubt advice and aid by technology. The concerns are about the ability for empathy and how truthful the advice is.

"Robots are not empathic enough. I would choose human interaction in every situation." (Interviewee 6)

The other participants have huge confidence in the algorithms and mathematics behind the technology for giving good advice. These participants were those not wanting advice, unless it is needed or desired by themselves.

"Based on calculations, technology is able to give good advice about certain characteristics." (Male, 22)

According to the research of Völz et al. (2022) the reduction of customer contact, which is the case in multiple scenarios with SRTs, is a factor worth considering as it can have a possible impact. On the other hand, one of the reasons the participants do not often visit the offline stores is because of the opening hours of the stores. Human employees imply certain opening hours. Working people argue that they do not have a lot of possibilities to visit brick-and-mortar stores. The participants argue that they see Go-stores as an opportunity for 24/7 accessibility and possibilities to shop offline after working hours. The 24/7 accessibility is one of the current challenges of brick-and-mortar stores, claiming Go-stores being a good alternative addressing this challenge (Völz et al., 2022).

A second smart technology discussed was the use of a smart mirror, giving recommendations on the pieces the customers wear when standing in front of it. Some participants were very accepting towards it, others were very sceptical. The main concern was about diversity and expressing yourself.

"Isn't everybody going to look the same when using these types of technologies?" (Interviewee 9)

There were no concerns regarding privacy, which supports the low risk of privacy concerns regarding the use of these SRTs mentioned by Völz et al. (2022).

A third scenario were the self-scan points and the "just walk out" technology. The participants agreed that self-scan points and "just walk out" technology are a convenience and make a fast check out possible. This is not very surprising, as one major factor determining the choice between on- and offline retail was convenience.

"Genius, never having to stand in line at the cash register." (Interviewee 10)

Despite the positive reactions towards this, concerns were made about "just walk out" technology. The first one being that it gives less sense of how much money is spent. The second one about the higher risk for error and on being scammed.

"What if they withdraw too much from your bank account? You must prove how many products bought etc." (Interviewee 2)

"I would be very sceptical at first with the "just walk out" technology. A lot of privacy falls away and I would be checking it into detail." (Interviewee 12)

According to Völz et al. (2022) privacy concerns rise when the behaviour and purchase inside the store is tracked, explaining the rise in case of "just walk out" technology. This is clearly visible in this study, as the participants shared their privacy concerns. Additional to these concerns, fear of errors and being scammed was even a bigger problem for the participants.

The participants, who prefer online over offline, argue that with the use of smart in-store technologies the difference between online and offline will be blurred and there is no reason to go all the way to the stores. This was already suggested by McRae (2018).

"If everything in store is leaded by technology, the difference between online and offline is gone." (Interviewee 11)

Smart in-store technologies are seen as a good addition to the in-store shopping experiences, but they are not seen as a good replacement for employees. The participants still value human interaction when shopping in-store. Not all of them needed the advice, but the presence of employees gives offers a safety net when technology fails. This indicates the need for a good service recovery afterwards.

"How would you solve a problem in the technology when there is no employee nearby that can help you immediately?" (Interviewee 12)

Another concern brought to the table was about unemployment. Some participants are concerned about the loss of more jobs when technology starts taking over.

"It might be interesting for companies, but a lot of unemployment will follow in the long run." (Interviewee 14)

Although there is the desire for human interaction, being helped by technology was seen as fast and easy.

The level of acceptance or resistance depends largely on the type of smart technology. When it comes to check out and payment, concerns rise. Specifically, participants are concerned about their privacy and possible errors and their recovery. When it concerns the decision process, such as a smart mirror, a certain excitement is present. The concerns about these technologies are less serious than those concerning the payment. They are about individualism and diversity rather than reluctancy because of scamming. Therefore, the personalization-privacy paradox, discussed by Riegger et al. (2022) is confirmed in this research.

The following table provides a summary:

Privacy and error concerns mostly rise when using a type of smart technology that tracks both the behaviour and the purchase of the customer in-store. This means that retailers should be more careful with these types of technologies. 24/7 accessibility of Go-stores tackles one of the greatest current challenges of brick-and-mortar stores: difficult opening hours.

Multi-channel approaches are commonly used. Therefore, good connection between the online and offline channel is a must have.

The table "drivers for channel decisions" shows that an important driver for choosing online retail is convenience. Smart in-store technologies can make offline retail more convenient, because of the possibility to implement Go-stores with a 24/7 accessibility. Therefore, consumers can visit the stores after working hours. The adoption of smart technologies in offline retail can create a better atmosphere. Browsing the stores becomes less time consuming, as you can easily search for the things you want to purchase through displays.

Discussion

A good understanding of the changed post-covid customer behaviour is important. The findings of this research show that customers still find convenience in online retail after the pandemic. This agrees with Sheth (2020), who argues that the concept of "store comes home" has enhanced the convenience in consumer behaviour. Customers often tend to purchase online, not out of health concerns, but it is a better fit to their work and personal lives. The convenience of online retail, discovered during the pandemic, might become standard practice as it fits into customers' lives. This might become a habit, as also already argued by Sheth (2020). The arguments opting for online shopping experiences found in this research are a mirror for the benefits retrieved from online retail discussed by Duggal et al. (2022), being efficiency, convenience, and access to information. An additional determinant found in this research is the type of product purchased combined with its price. As prices get higher, customers are more likely to purchase in-store. As the product gets more difficult to return, customers also tend to purchase the product in-store.

As mentioned by Völz et al. (2022), and confirmed in this research, the accessibility to the stores is a current challenge for brick-and-mortar stores. As working customers, it is inefficient to go shopping in-store. Online shopping answers this problem. Nevertheless, the look and feel concept of the stores is still an advantage attracting customers to the stores. According to Beckers et al. (2021), the local retailers were more vulnerable for the impact of the Covid-19 pandemic, as their online presence is low. This research finds that customers value the in-store experience at local retailers, as they are more aware of their offline presence than their online presence. Customers enjoy their experience in these stores, because they are less crowded and chaotic than those from big retailers. This suggests that the local retailers have an advantage in the offline retail. Customers tend to shop offline when they need a specific product. In this case, a multi-channel approach is often used. Webrooming is seen as a good approach, as it offers the convenience of online searching and the tangible experience of physical stores (Aw et al., 2021). This research argues that customers find it convenient to search online, as they do not have to browse every store when looking for a specific item. Therefore, they do not lose any more time than necessary. Customers do not like the experience in most stores, so it is convenient to know where to find the product. When webrooming, they expect a good connection between the app and the stores. The app providing them with the right availability of the product and the location in-store are basic needs and not delighters. A bad connection brings irritation and diminishes the pleasure from the shopping experience. Willems et al. (2017) argue that smart technologies are the drivers for multi-channel approaches. The findings of this research show that smart technologies can make the shopping experience of multi-channel consumers easy and less exhausting. When they fail, they just as easily bring exhaustion and irritation forward. A seamless connection between online and offline retail is not a delighter, it is a must have.

According to Aw et al. (2021), being able to navigate through the multi-channel landscape, gives a competitive advantage to retailers. According to McRae (2018) high streets need to transform into destinations that offer enjoyable experiences to shoppers. To secure their position in the multi-channel world, retailers should provide differentiating values to gain relevance. Smart technologies can provide improved shopping experiences and encourage certain shopping behaviours (Willems et

al., 2017). As webrooming is practiced more, it might be a good opportunity to attract people to stores again. Focusing on the search at home and purchase in-store, could be a good start. Providing a seamless connection between online and offline is especially important in this case. As people already did their research at home, they get irritated when things do not work out in the store. With the support of smart in-store technologies, they might browse the store a little longer as recommendations based on their present and past data are made.

To improve shopping experiences for customers, analysing their acceptance of resistance towards smart in-store technologies is a must. Research from Riegger et al. (2022) addresses that besides the favourable reactions of customers, there might be unfavourable reactions as well: the personalization-privacy paradox. Privacy concerns can cause customers to change their purchasing behaviour (Riegger et al., 2022). The findings of this research agree with these concerns. Even stronger, also concerns about errors were found. Especially scamming was brought up by customers as a fear of the digital paying methods. The customers remain sceptical, not lying their full trust in technology. The research of Völz et al. (2022) is based on arguments of experts. The most important factors regarding the implementation of smart in-store technologies mentioned by these experts were the customer acceptance risk, privacy concerns and the reduction of customer contact. This research, based on the customers' point of view, largely aligns with the research of Völz et al. (2022). Customer acceptance risk is based on the ease of use, usefulness, and evaluation of how personal data is handled while using smart technologies. These factors do not find back up in this research. The customers researched are from Gen Z, digital natives, therefore the ease of use and usefulness are in general not an issue. Customers are concerned about their privacy when it concerns the payment of their purchase. This is explained, as Völz et al. (2022) argue that these concerns rise when customers are aware of being tracked in their behaviour and purchase inside the stores. Smart shelves and digital signage are seen as low risk in privacy concerns. In this research concerns rise about errors and scamming regarding smart shelves and digital signage.

Duggal et al. (2022) argue that the salvation of the offline retail lies in focusing on improved customer interactions, understanding their emotional needs, and therefore keeping a customercentric mindset. This research suggests that customers value the presence of an employee. Customers that value advice by employees in the offline retail environment, do not put a lot of confidence in the advice given by technology. The presence of human employees in-store provides customers with a safety net they can refer to when technology fails. According to these findings, present employees should be trained on dealing with these errors. The research found that there are questions about the need to shop in-store when technologies are implemented. As McRae (2018) already suggested, the line between online and offline will be blurred, and the advantages of shopping in-store are becoming minimal. Human interaction is still seen as a reason to shop instore. This also agrees with Duggal et al. (2022), who argue that offline retail should build their advantage on human interactions. According to Völz et al. (2022), the reduction of customer contact has both negative and positive impact. On the one hand, technology transfers employees' tasks to the customer, on the other hand, it offers possibilities for 24/7 accessibility (Völz et al., 2022). This research shows that one of the main reasons customers shop online, is because of the accessibility, or lack of, after working hours. Go-stores can tackle this challenge, giving customers the opportunity

to shop offline after working hours. The right balance between human interaction and support by technology might be key for retailers. Not everyone accepts technology in their lives as much as others. When mistakes rise or human interaction is asked for, customers should be able to turn to human employees who are trained to righten the wrongs and advice customers.

Conclusion

As the world entered the fourth Industrial Revolution, smart technologies started to gain ground and found their way into the retail landscape, providing online retail with tools to step up their game. The Covid-19 pandemic has boosted this rise of online retail as it was a solution to the needs of customers during times of social distancing, lockdowns, and self-isolation. The shift from offline to online retail, which started by the fourth Industrial Revolution, got accelerated (Moon et al., 2021; Har et al., 2022). Besides this shift, multi-channel approaches have become more popular among customers, especially webrooming (Aw et al., 2021). The notion of online retail being on a path to destroying offline retail is being nuanced. Smart in-store technologies have the power to provide consumers with a personalized shopping experience in-store. They are also the drivers of multi-channel approaches (Willems et al., 2017). As a retailer, being able to navigate through the multi-channel landscape, delivers a competitive advantage (Aw et al., 2021). According to Inman et al. (2017), retailers find little guidance on implementing shopper-facing technology in academic literature. There is a need for a framework which guides retailers in their consideration towards technology (Inman et al., 2017). As the retail landscape changes, consumers' expectations and preferences are also changing (Aw et al., 2021).

From previous literature is known that customers might be reluctant towards smart in-store technologies. The privacy-personalization paradox shows this quite well. The reactions can either be favourable regarding the personal approach or unfavourable when privacy concerns arise (Riegger et al., 2022). Völz et al. (2022) argue that customer acceptance risk is a crucial factor in technology adoption. This is closely connected with privacy concerns. Both factors depend on the technology used.

This study aims to understand the post-covid customer behaviour and the acceptance of customers towards smart in-store technologies. This is particularly important, as retailers need guidelines to cope with the current changes in customer behaviour and how to implement smart instore technologies according to the preferences of customers. For the purpose of the study, 2 focus groups are organised. The first focus group consisted out of eight participants and the second one out of 6 participants. Participants are selected through purposeful sampling. All participants are from Gen Z, who are raised with technology. The interview guideline is created, based on the research questions and the secondary data from the literature review. A laddering technique is used when asking the questions, to get a thorough understanding.

The following research questions were analyzed during the focus groups:

Does the trend towards online retail continues post-covid?

- Which retail channels do customers use in the post-covid era?
- Why do customers prefer either online or offline?
- Is webrooming commonly practiced by customers?

Do customers accept or resist SRTs?

- Does it depend on the type of SRTs implemented?
- What is the impact of reduced human interaction?
- What is the role of webrooming in a smart technology environment?

Post-covid customer behaviour

Customers have a remaining preference towards online shopping post-covid. Convenience remains the primary driver for customers. Therefore, online shopping is very attractive due to factors like timesaving, accessibility, and variety of choices. Accessibility and convenience have a significant role in channel decisions. The distance to the stores is an important factor, but the transportation medium is not a factor worth considering. Offline shopping is still attractive due to the look and feel concept and the ability to receive advice. Especially when one specific product is needed, offline shopping is still seen as the fastest way to get the product. Customers prefer local retailers for offline shopping experiences due to their awareness of their offline presence. Bigger store chains are preferred when online shopping.

Acceptance towards smart in-store technologies

Whether customers are accepting or resisting towards smart in-store technologies, depends on the type of technology. When tracking the behaviour and the purchase in store is an essential part to enable the respective functionalities of the smart in-store technologies. Customer acceptance risk, privacy concerns, reduction of human contact, and the fear of errors or being scammed are all factors, retailers need to consider. The risk of acceptance and the privacy concerns are especially high when the customers feel the tracking of the smart in-store technologies. With digital payments, concerns towards error or scamming rise. The reduction of human contact can either have a positive or negative impact. Some customers doubt the advice by technology. They fear that smart mirrors and recommendations through the app will stop diversity. According to some customers, the line between online and offline is blurred, when implementing smart technologies as the advantage of human interaction is erased. On the positive side, Go-Stores provide a solution for 24/7 accessibility of stores, being the biggest current challenge of brick-and-mortar stores.

Webrooming is especially practiced by customers when they need a certain product. They find is most convenient to browse the online stores and then immediately go to the right offline store. A good, seamless connection between the online and the offline shopping experience is very important in this matter.

Implications

Webrooming might be the best start when implementing smart in-store technologies and attracting customers to the offline stores. Focusing on the concept of searching online and buying offline to feel and see the product, is a good start for smart in-store technologies. Customers are not completely accepting smart in-store technologies. They still have doubts and concerns. When webrooming, the connection between online and offline retail must be seamless. Smart in-store technologies can provide this connection and enable further customer behaviours when the customers are in-store. Starting with smart mirrors, a good application and personalized messages might be the best way to implement smart in-store technologies. Regarding these SRTs are no profound concerns made. They personalize the offline shopping experience, which is also appreciated in the online shopping experience, but they are not too aggressive at once.

The right balance between technology and human interaction is also important. Customers find the line between online and offline blurred when they are only in contact with technology. An advantage of shopping offline is then erased. The presence of human employees is still a must, but they can be helped by technology. Giving customers some sort of choice between technology and human interaction is important. Depending on their own preferences, they can choose their own personalized shopping experience.

Limitations and research agenda

It is important to note that a focus group is only an indication. They are not particularly large. As there are only few people present, it does not provide representative data. Focus groups are perfect to gain first ideas and patterns but cannot be generalised. The demographics of this focus group is Gen Z, digital natives. Different findings might occur in a focus group with different demographics. The research is conducted in Belgium, where experience with smart in-store technologies is scarce. The sceptical reactions of the participants might come from this uncertainty about the topic. When researched in countries that are further evolved in this offline shopping experiences, participants might have a different view which is less reluctant or even more sceptical.

The interview guideline is focused on retail in general (clothing, electronics...). There might be differences towards acceptance between different sectors in retail.

Therefore, it is important not to generalize the findings of this research and solely use them as an indication for future research. This research should focus on different demographics, countries, and separate sectors as there might also be differences there.

For retailers, to get guidance in the implementation of smart in-store technologies, a survey amongst their own customer base might provide them with insights on the acceptance of these technologies. As seen in this research, customers have different expectations towards the local retailers as to the big retailers. It is useful to gather information from their own customer base. Not every customer has the same needs, and these needs might differ amongst different retailers.

The focus on webrooming and a seamless connection between the online and offline retail might be an effective way to start. Customers need that seamless connection. As retailers start focusing more on the webrooming experience, offline retail can get a boost again. It is important to make sure that the in-store experience is pleasant for the customer. This might attract them to browse the store longer.

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