Integrating Digital Technologies to Enhance CSR Strategies for Retail Companies in Latvia

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Abstract—As sustainable practices grow in importance, Latvian companies must align their CSR strategies with environmental goals. Integrating digital technologies into CSR presents an opportunity for progress, innovation, and efficiency. Through this transformation, companies can benefit both themselves and the environment, reducing their ecological footprint and contributing to a sustainable future. Embracing this evolution in CSR demonstrates commitment to positive change and fosters collaboration among stakeholders. By combining sustainable practices with digital technologies, Latvian companies can lead in creating a greener business landscape. Adaptation and improvement of CSR strategies can make a lasting global impact on sustainable development. The goal of the research was to assess the ways in which retail companies in Latvia can utilize digital technologies to enhance their CSR strategies, with an emphasis on advocating for sustainable practices. To reach the goal the following tasks were set forth: (1) to research theoretical sources on CSR and digitalization, with a particular accent upon retail companies; (2) to work out empirical research methodology; (3) to carry out empirical research and interpret results. The main empirical research method employed was the online survey of retail customers (n=207). The findings suggest that digital technologies play a crucial role in improving companies' CSR capabilities. The findings show that opinions about the role of digital technology in CSR vary greatly depending on age and gender. Younger people, especially women, are very supportive of using digital tools in CSR, possibly because they are more familiar with technology and have a stronger awareness of environmental issues. On the other hand, the responses from older age groups show a mix of opinions, indicating the need for specific awareness campaigns and training to bridge the confidence gap. To effectively incorporate digital technologies into CSR efforts, retail companies need to customize their strategies to accommodate these demographic differences to promote widespread and inclusive adoption.

Keywords— Digital Technologies; Retail Industry; Corporate Social Responsibility; Sustainability; Resource Optimization

I. INTRODUCTION

The topicality of this study lies in addressing the pressing need for Latvian companies to enhance their CSR (corporate social responsibility) strategies amidst slow progress and incomplete implementation of reforms, as highlighted by the 2023 European Semester reviews. Despite some advancements, with 54% progress on CSR-related recommendations, significant challenges remain in achieving comprehensive and effective CSR outcomes. This research is particularly relevant as it explores how digital technologies, such as AI (Artificial Intelligence), blockchain, and IoT (Internet of Things), can optimize CSR strategies to improve environmental sustainability, social responsibility, and economic resilience [1].

By focusing on Latvian companies especially on the retail industry, this study not only addresses local barriers and challenges but also aims to provide actionable insights and recommendations for leveraging technology to overcome these obstacles, making it a timely and impactful contribution to the field. It is important to note that the integration of these digital technologies has the potential to revolutionize the way these companies approach CSR, enabling them to streamline their processes, automate certain tasks, and enhance overall efficiency. For instance, AI can be used to analyse large volumes of data and identify patterns and trends related to CSR performance, helping companies gain valuable insights and make data-driven decisions. On the other hand, blockchain technology

can improve transparency and accountability in CSR initiatives by providing a decentralized and immutable ledger to track and verify social and environmental impacts. As for IoT, it enables real-time monitoring and reporting of sustainability metrics, facilitating proactive management and timely interventions to address emerging issues [2].

Digital technologies, such as mobile devices, data analytics, cloud computing systems, broadband internet, and various social media platforms, have rapidly emerged and gained prominence in the past several years. The widespread adoption of these digital technologies has led to significant transformations across various domains, including marketing and sales. However, when it comes to the realm of CSR (corporate social responsibility) practices, the impact of digital technologies has been relatively limited, with only a handful of companies leveraging these technologies to drive their CSR initiatives [3]. Nevertheless, it is important to recognize the potential of digital technologies in shaping and enhancing CSR practices. The development and advancement of digital technology have paved the way for the emergence of numerous applications and platforms that offer public value to citizens. For instance, mobile health applications have revolutionized healthcare services, e-government services have streamlined administrative processes, and consumer behaviour in the realm of mobile culture (m-culture) has opened new possibilities for engaging with the public. These applications, fuelled by digital technology, have the potential to contribute to the economic, environmental, social, and governance aspects of corporate social responsibility, benefiting both the community and the entities involved [4] – [5]. As a result, the relevance of utilizing digital technologies in CSR practices cannot be understated. In the absence of a well-defined strategy that integrates digital communications into key societal transformation and improvement areas, disparities and gaps in the provision of public value can arise, impeding overall growth. To address this challenge, countries have embraced the need for designing comprehensive strategies that align digital technology applications with meaningful societal and business outcomes. By strategically connecting digital technologies to CSR initiatives, countries can leverage the power of these technologies to drive positive changes in society and foster mutually beneficial relationships with various stakeholders [6].

Digital technologies have revolutionized numerous aspects of our lives, including marketing, sales, and healthcare. However, their impact on CSR practices has been relatively limited. It is crucial for businesses and societies to recognize the potential of digital technologies in enhancing CSR initiatives and driving positive societal change. By embracing these technologies and developing comprehensive strategies, countries can create an enabling environment for integrating digital technology applications into CSR practices, ultimately leading to improved public value and sustainable development [7].

Corporate Social Responsibility (CSR) has been defined as composed of three elements of alliance between workers, companies, and the government, with differing strategies observed in various nations. As articulated by Velga Vevere and Anna Svirina in the publication "Business Ethics and Corporate Social Responsibility," CSR entails a voluntary pledge to incorporate social and environmental considerations into business activities and engagements with stakeholders. Globally, there exist multiple CSR models, each emphasizing various degrees of government participation, extending from engagement at the national level to regulations at the enterprise level [8].

At the same time, the digital era creates new opportunities and challenges in communication of the CSR activities [9] – [10].

The goal of the current research is to identify how digital technologies can enhance CSR strategies for companies in Latvia, focusing on improving environmental sustainability, social responsibility and economic resilience.

II. MATERIALS AND METHODS

Corporate Social Responsibility (CSR) is crucial for companies as it involves actively considering social, environmental, and economic issues in their business operations and relationships with stakeholders. Prioritizing CSR not only ensures compliance with legal requirements but also entails going above and beyond to tackle societal problems through ethical and sustainable business practices. The European Commission [11] defines CSR as a commitment by companies to embrace their responsibilities and contribute to positive societal change. Carroll's [12] pyramid of CSR is a comprehensive framework that emphasizes four key areas that companies should address: economic responsibilities, which involve generating profits and providing a return on investment to shareholders; legal responsibilities, which entail compliance with laws and regulations; ethical responsibilities, which encompass adhering to ethical principles and values in decision-making processes; and philanthropic responsibilities, which encompass giving back to communities and engaging in social initiatives to make a positive impact. By integrating CSR into their core business strategies, companies can establish themselves as socially and environmentally responsible entities, enhance their reputation, and build trust among their stakeholders. This not only benefits society by addressing pressing issues such as climate change, inequality, and poverty but also fosters long-term sustainability and competitiveness for the companies themselves [13]. CSR serves as a guiding principle for companies to actively contribute to social progress and sustainability. By proactively addressing economic, legal, ethical, and philanthropic responsibilities, companies can create a positive impact on society while ensuring their long-term success in an interconnected and socially aware world [14].

The concept of corporate social responsibility (CSR) in Latvia has gained significant prominence since the country acceded to the European Union in 2004. Initially, CSR was primarily driven by the need to comply with EU directives, especially those of environmental protection, labour rights,

and sustainable business practices [15]. However, as time passed and the awareness of the importance of CSR grew, Latvian businesses started embracing a more comprehensive approach to CSR, drawing inspiration from global trends and the increasing consciousness of consumers. These factors have played a crucial role in shaping and expanding the scope of CSR practices within the country's corporate landscape, encompassing not only environmental and labour concerns but also ethical sourcing, community engagement, and philanthropy. As a result, Latvian companies have been actively implementing CSR initiatives that prioritize sustainable growth, social impact, and long-term value creation. By ensuring responsible and transparent business practices, they have not only met the legal requirements imposed by the EU but also become key stakeholders in the sustainable development of Latvia. This commitment to CSR has not only enhanced the reputation and competitiveness of Latvian businesses on both domestic and international fronts but has also contributed to the overall well-being of society and the environment. With the growing importance of CSR, it is expected that more Latvian companies will continue to embrace and further expand their initiatives, making a positive and lasting impact on various stakeholders and ensuring a sustainable future for the country. Between the years 2019 and 2022, Latvia witnessed a remarkable and praiseworthy 54% increase in the realm of CSR progress, as diligently assessed and evaluated through the lens of European Semester reviews. This notable growth is a testament to the dedication and zeal that both the Latvian government and businesses have exhibited towards embracing the essence of CSR. Yet, this surge in progress should not overshadow the pressing reality that sustains the need for even stronger and more effective strategies. It is imperative that the integration of CSR principles into corporate governance practices be further enhanced and strengthened in order to make lasting and impactful changes [16].

Notably, in Latvia, prominent retail chains like RIMI, MAXIMA, and LIDL have emerged as key players spearheading CSR initiatives. These retail giants have adeptly aligned their strategies with global trends while navigating and addressing unique local challenges. This transformative approach beautifully signifies their deepened commitment towards creating a positive impact on society and the environment. As the retail landscape continues to evolve, it becomes increasingly evident that CSR is no longer a mere buzzword but a fundamental aspect of responsible business practices. Industry leaders recognize that the integration of ethical and sustainable principles is not only crucial for meeting customer demands but also for fostering long-term success. By adopting and implementing robust CSR initiatives, retailers can not only enhance their brand reputation but also contribute positively to the communities they serve and safeguard the delicate ecological balance.

The reports and success stories from the leading retail chains [17] – [18]. underline the significant strides made by the industry in embracing CSR. As consumers become increasingly mindful of the environmental and social impacts of their purchases, retailers must prioritize CSR as a strategic imperative, thereby cementing their position as pillars of positive change within society and the global marketplace.

The development of digital technology in Corporate Social Responsibility (CSR) in Latvia demonstrates the incorporation of advanced methods and sustainable strategies to adhere to worldwide trends. Latvia's advancement towards digital transformation in CSR can be categorized into three phases: the commencement of digitalization, the assimilation of digital tools, and the compliance with the European Union's Digital Decade framework. In the first phase, the commencement of digitalization, Latvia recognized the significance of integrating digital technology into CSR practices. This initial step involved identifying the potential benefits and challenges of digitalization and establishing a foundation for further development. The second phase, the assimilation of digital tools, marked a significant shift in Latvia's approach to CSR. Digital tools and platforms were embraced to enhance communication, efficiency, and transparency in CSR initiatives. These tools empowered businesses and organizations to engage with stakeholders, facilitate collaboration, and track the impact of their CSR efforts. The final phase of Latvia's digital transformation in CSR revolves around compliance with the European Union's Digital Decade framework. This framework sets ambitious targets for the digitalization of various sectors, including CSR. Latvia's commitment to this framework ensures that its digital strategy aligns with EU guidelines and harnesses the full potential of digital technology to drive positive social and environmental change. By combining these three phases, Latvia has successfully leveraged digital technology to strengthen its CSR initiatives. The incorporation of advanced methods and sustainable strategies has not only positioned Latvia at the forefront of digital innovation but also enabled the country to contribute significantly to global CSR trends. Through continued dedication to digital transformation, Latvia will undoubtedly continue to shape the future of CSR in the digital era [19].

Digital technologies are highly essential tools that can be effectively utilized in the design and implementation of Corporate Social Responsibility (CSR) strategies. In general, the role played by these digital technologies is often overlooked and not adequately explained. The deployment and influence of digital technologies are often described superficially, failing to grasp their true potential. Simultaneously, it is of utmost importance to emphasize the purpose of the field extensively. To truly showcase a company's contribution to society, it becomes crucial to establish a comprehensive and interactive platform that visualizes and highlights these efforts. Furthermore, digital technologies can be utilized as a powerful instrument for analysing the breadth and depth of changes within CSR policies. They can expand the company's horizon, enabling a wider understanding of societal needs and facilitating the design of effective CSR actions. These technologies

provide the capability to utilize real-time or big data sources for performance monitoring, social investment evaluation, and the management of a dynamic portfolio of CSR initiatives. With these digital tools at hand, companies can greatly enhance their CSR endeavours, ensuring a more impactful and sustainable approach in their contributions to society [20]. In Latvia, companies have recognized the immense potential of AI-driven technology and are progressively utilizing it to carefully monitor their environmental impact and develop sophisticated waste management systems. By leveraging these digital platforms, organizations now have the unprecedented ability to foster enhanced transparency, establish robust relationships with stakeholders, and ultimately bolster corporate responsibility while instilling a heightened level of public confidence in their operations [21]. Corporate collaborations with government initiatives have promoted the harmonization of CSR activities with the digitalization objectives of the nation. An example of this is the use of digital reporting and data analysis tools to assist companies in assessing and enhancing their social and environmental footprint in a more efficient manner.

One of the major challenges in the implementation of a digital CSR strategy for companies is the need to demonstrate beneficial results for internal and external stakeholders. The reality is that with new digital tools, positive results can only be seen after a certain time. In addition, the costs can be significant, and expected outcomes may be hard to measure. Organizations may lack key team members, and differences in experience, attention, energy, engagement, and expectation are common. Investments in this area may also be made without prior consideration of how potential future approaches to stakeholder engagement might change as digital technology evolves. The issue is not just about changing communication technology but also about how society's use of technology and labour shapes expectations and needs [22].

The current research methodology was designed considering the developments and challenges. To investigate how digital technologies can enhance CSR strategies for the retail companies in Latvia, focusing on improving environmental sustainability, social responsibility, and economic resilience, this study utilized an online survey as the main method for gathering data. The purpose of the survey was to collect information about how retail companies in Latvia, including RIMI, MAXIMA, and LIDL, are using digital technologies to improve their Corporate Social Responsibility (CSR) strategies. The questions were created to understand different views on awareness, attitudes, and hopes regarding CSR actions and the use of digital methods. The survey allowed participants to provide detailed feedback and in-depth information on their shopping habits, brand preferences, shopping frequency, online purchasing behaviour, awareness regarding sustainable retail practices, and beliefs about corporate social responsibility (CSR) and the use of digital technologies in sustainable retail. The survey was created and shared using Google Forms, a user-friendly platform known for its simplicity, accessibility, and wide

distribution capabilities, ensuring that the survey reached a diverse range of participants and collected comprehensive data. Furthermore, Google Forms automatically stores the data in Excel format, facilitating efficient data analysis. The sampling method was the snowball sampling one. The link to the survey was sent to a number of identified retail customers with a kind request to distribute to the target audience. To minimize the potential sampling bias, the original link was sent to a diverse set of respondents, who exhibited different demographic profiles (gender, age, education, income level, etc.). Thus, the total number of 207 responses was reached [23]. In our opinion, this number of responses allows us to conclude the main tendencies regarding the integration of digital technologies to enhance CSR activities in retail companies in Latvia.

The role of digital technologies in CSR formed a core theme of the survey. Respondents were asked whether they believe technologies like AI, blockchain, mobile applications, social media, or IoT can enhance CSR efforts, with follow-up questions exploring observed usage of such tools (e.g., apps promoting sustainability or digital waste management systems). The survey further investigates perceptions of these technologies' effectiveness in ensuring transparency and their influence on customer preferences, such as choosing stores that actively use technology for sustainability. Finally, it delves into trust and advocacy, assessing whether technology-driven CSR initiatives increase trust in the retailer and the likelihood of recommending such stores. To gauge future expectations, the survey concludes by asking respondents to rate the importance of adopting advanced digital technologies in CSR activities over the next five years, emphasizing the evolving role of innovation in retail sustainability.

Participants were requested to rate specific statements on a scale of 1 to 5, where 1 represented strong disagreement, 5 represented strong agreement, and 3 represented neutral attitude. These carefully crafted statements not only measured participants' attitudes towards CSR efforts, digital sustainability tools, and overall trust in technology-based retail practices, but also delved deeper into their motivations, preferences, and behaviours related to sustainable consumption. By including such nuanced statements in the survey, this study aimed to capture a holistic view of participants' opinions and perceptions on sustainable retail, enabling researchers to draw robust conclusions and insights from the collected data.

The survey included three sections. The initial portion aimed to gather comprehensive and detailed demographic details, encompassing a wide range of factors such as age range, income level, educational background, occupation, and geographic location. Moving on to the second part of the survey, it sought to assess not only the extent of respondents' knowledge about CSR initiatives carried out by retail chains but also their attitudes, opinions, and experiences related to these initiatives. In addition to exploring their awareness of CSR efforts undertaken by popular retail chains such as RIMI, MAXIMA, and LIDL, the questions delved into the participants' level of engagement with these stores and the frequency of their

visits. This comprehensive approach aimed to uncover valuable insights into the participants' shopping behaviour, enabling a deeper analysis of the correlation between their knowledge of CSR initiatives and their choices as consumers. This included initiatives such as waste reduction, recycling, and sustainability promotion. The questionnaire's third section assessed the impact of digital technologies on enhancing corporate social responsibility (CSR) initiatives. It extensively covered various aspects of technology, including the awareness and utilization of digital tools such as sustainability apps and waste management systems. Moreover, it aimed to evaluate the effectiveness of these tools in promoting transparency within organizations. Additionally, the section explored the influence of digital technologies on consumers' purchasing decisions. Respondents were asked about their preferences for shopping at stores that incorporate technology to achieve environmental sustainability. Furthermore, the section delved into the significance of digital innovations in the context of CSR over the next five years. To measure the respondents' awareness, credibility, and the potential influence of digital tools on their purchase intentions and trust in retailers, scaled questions were utilized in each subsection. Data was analysed by the means of descriptive statistics.

III.   RESULTS AND DISCUSSION

The survey gathered data from individuals aged 18 and older, encompassing various socio-economic and professional backgrounds. The questionnaire covered several key areas, including awareness of CSR initiatives, the perceived importance of digital technologies in CSR, and preferences for technology-enhanced CSR practices. The respondents were grouped into different age brackets—18-24, 25-34, 35-44, 45-54, and 55+, ensuring a generationally diverse understanding of consumer attitudes and expectations. The examination of the distribution of age groups based on the survey data showed that the majority of survey takers are between the ages of 31 and 50, making up 40.1% of the total respondents. This indicated that middle-aged individuals were the main group involved in the CSR-related initiatives and technologies in retail settings. The age group of 18-30 made up 34.3% of respondents, showing significant participation from younger adults who are often the first to adopt technology and advocate for sustainability. Participants aged 51 and older comprised 15%, indicating a moderate level of engagement from older individuals. Lastly, those under 18 represented 10.6%, showing the least participation but still indicating interest in CSR activities among younger generations. These findings highlighted the importance of customizing CSR and technology strategies to accommodate the preferences and levels of engagement of middle-aged and younger adult consumers, who make up the largest groups.

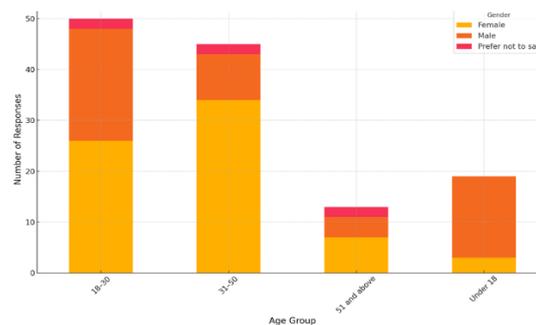Figure 1 presents the summary chart of attitudes to the CSR by age and gender.

Fig. 1.   Analysis of age group, gender vs CSR awareness

The chart provides valuable insights into the varying levels of awareness of Corporate Social Responsibility (CSR) among different age groups and genders, specifically focusing on the affirmative responses. It sheds light on intriguing patterns, such as the notably higher awareness levels observed in females aged 31-50, indicating a remarkable interest in engaging in CSR activities within this demographic. Surprisingly, males under the age of 18 exhibit a substantial level of awareness compared to their counterparts in other male age groups. Conversely, both genders in the 51-and-above age group exhibit relatively lower levels of awareness, suggesting the necessity for more targeted outreach endeavours. These significant findings underscore the critical importance of tailoring CSR communication strategies to suit the specific demographic groups, particularly with regards to older audiences and males within certain age ranges, to foster greater levels of engagement and awareness surrounding CSR initiatives.

The survey found that respondents were highly aware of the Corporate Social Responsibility (CSR) activities carried out by retail stores like Rimi, Maxima, and Lidl. Many participants mentioned initiatives such as the promotion of environmentally friendly bags and the support of local farmers as noteworthy CSR practices. However, while some respondents were able to identify specific efforts, others had limited knowledge of ongoing initiatives, indicating the need for improved communication and visibility. The findings emphasize the importance not only of implementing impactful CSR programs, but also of ensuring that they are accessible and transparent to the customer base. Enhanced digital tools could be key in bridging this gap and promoting greater engagement and trust among consumers.

The importance of CSR activities for the customers the results are depicted in Table 1.

The results appear to be relatively stable with a low spread, a slightly left-skewed distribution, and a more peaked shape than a normal distribution. The coefficient of variation suggests low dispersion relative to the mean, meaning the values do not fluctuate wildly. The results of the survey underscore the high level of importance for retail companies to engage in activities that have a positive impact on society and the environment. A large majority of participants rated this as extremely crucial, with most

giving it a score of 5 on a scale from 1 to 5. Survey takers pointed out that such initiatives not only build trust in the brand but also influence their shopping choices, leading them to favour retailers that prioritize societal and environmental responsibilities.

TABLE 1 IMPORTANCE OF CSR ACTIVITIES FOR CUSTOMERS

Descriptive statistics indicators					
Arithmetic mean	*Median*	*Mode*	*Standard deviation*	*Kurtosis*	*Coefficient of variation*
3,9	4	4	0,.64	3.751	0.199

Based on the survey results, most participants have noticed that retail chains like Rimi, Maxima, and Lidl are using digital tools to support their CSR efforts. These tools range from apps promoting sustainability to digital waste management systems. Survey respondents gave examples such as apps that encourage customers to recycle, digital platforms for reducing food waste, and IoT-based systems that monitor energy use in stores. These technologies are seen as improving CSR activities and also as a way to build customer trust and loyalty by showing a commitment to environmental and social sustainability. However, some respondents mentioned not noticing these technologies, highlighting the need for more visibility and customer education about these initiatives. This suggests that there is potential for these retail chains to better implement and communicate digital tools to ensure their impact is widely recognized and valued (see Table 2).

TABLE 2 VALUATION OF USE OF DIGITAL TECHNOLOGIES PROMOTING CSR ACTIVITIES

Descriptive statistics indicators					
Arithmetic mean	*Median*	*Mode*	*Standard deviation*	*Kurtosis*	*Coefficient of variation*
3,85	4	4	0.758	4.14	0.197

Based on survey feedback, digital technologies are seen as extremely successful in promoting transparency in a company's CSR endeavours. Most participants ranked their efficiency as top-notch, stressing that methods such as blockchain and IoT increase trust through the provision of up-to-date details on supply chain operations and sustainability projects. These tools empower consumers to validate assertions about ethical sourcing, waste minimization, and energy efficiency, promoting a feeling of responsibility. The data is fairly stable with low variability. The most common value is 4, and the median is also 4, indicating a balanced dataset. The distribution is peaked with more frequent extreme values (outliers). The

low coefficient of variation confirms consistent data with little fluctuation. This indicates a trend among consumers where technology-driven environmental responsibility is playing a significant role in brand loyalty and trust. Retailers who adopt these strategies are in a good position to build stronger relationships with customers and establish a reputation for sustainability and innovation. Consumers believe that the use of technology in CSR, such as sustainability-promoting apps and blockchain for supply chain transparency, reflects a company's genuine dedication to environmental and social causes. This alignment of technological advancement with ethical standards not only increases trust but also reinforces the perceived honesty of retail brands like Rimi, Maxima, and Lidl.

The survey on perceptions of integrating digital technologies into corporate social responsibility (CSR) initiatives across different age groups and genders reveals a multitude of fascinating patterns (see Fig.2).
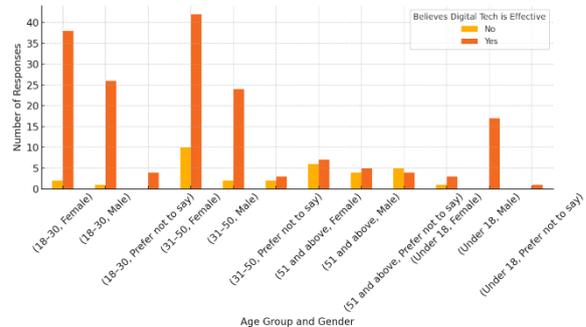

Fig. 2. Analysis of age group, gender vs CSR awareness

It becomes apparent that individuals aged 18-30, irrespective of their gender, wholeheartedly believe in the immense power of digital tools such as artificial intelligence (AI), the Internet of Things (IoT), and blockchain to significantly enhance CSR activities. This remarkable level of enthusiasm is particularly evident among females within this age bracket, as they overwhelmingly express their unwavering support for the utilization of digital technologies in CSR endeavours. Furthermore, males and those individuals who prefer not to disclose their gender within the same age group also demonstrate significant agreement, albeit slightly less pronounced. The results from this survey serve as a testament to the fact that younger individuals possess a heightened awareness regarding the tremendous potential of digital innovations to promote transparency, sustainability, and create a profound impact within the realm of CSR. It is, therefore, crucial for organizations to acknowledge and capitalize on this remarkable outlook among the younger generation to further drive positive change and advancements in the field of corporate social responsibility.

And also, 31-50 age group shows a wider range of responses. Even though most in this group also believe in the impact of digital technologies on CSR, a significant number of both women and men express doubts or a lack of support. This difference may be due to different levels

of familiarity or trust in these technologies. It is worth noting that while men in this age group show slightly less support compared to women, overall, there is recognition of the potential benefits of digital integration in CSR. These results highlight the significance of demographic factors in the development and execution of technology-based CSR initiatives.

Therefore, these findings show that opinions about the role of digital technology in CSR vary greatly depending on age and gender. Younger people, especially women, are very supportive of using digital tools in CSR, possibly because they are more familiar with technology and have a stronger awareness of environmental issues. On the other hand, the responses from older age groups show a mix of opinions, indicating the need for specific awareness campaigns and training to bridge the confidence gap. To effectively incorporate digital technologies into CSR efforts, retail companies need to customize their strategies to accommodate these demographic differences to promote widespread and inclusive adoption.

IV.   CONCLUSIONS

The integration of digital technologies into corporate social responsibility (CSR) strategies offers a transformative opportunity for retail companies operating in Latvia. These technologies, including mobile applications, social media, artificial intelligence (AI), blockchain, and the Internet of Things (IoT), have already shown significant benefits. It helped to enhance transparency, improve efficiency, and deepen consumer engagement. Through the implementation of these digital tools, retail companies of Rimi, Maxima, and Lidl are able to optimize their resource utilization, enhance supply chain transparency, with cultivate community trust.

The results of the survey disclose the intriguing patterns regarding awareness of CSR activities, such as the notably higher awareness levels observed in females aged 31-50, indicating a remarkable interest in engaging in CSR activities within this demographic. Surprisingly, males under the age of 18 exhibit a substantial level of awareness compared to their counterparts in other male age groups. Conversely, both genders in the 51-and-above age group exhibit relatively lower levels of awareness, suggesting the necessity for more targeted outreach endeavours. These significant findings underscore the critical importance of tailoring CSR communication strategies to suit the specific demographic groups, particularly concerning older audiences and males within certain age ranges, to foster greater levels of engagement and awareness surrounding CSR initiatives.

Most of the respondents have noticed that retail chains like Rimi, Maxima, and Lidl are using digital tools to support their CSR efforts. These tools range from apps promoting sustainability to digital waste management systems. Survey respondents gave examples such as apps that encourage customers to recycle, digital platforms for reducing food waste, and Internet of Things-based systems that monitor energy use in stores. These technologies are seen as improving CSR activities and also as a way to build customer trust and loyalty by showing a commitment to environmental and social sustainability.

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Future Trends in Digital CSR. Looking ahead, the future of CSR in Latvia's retail sector lies in adopting advanced technologies like advanced mobile apps, AI-driven analytics, enhanced blockchain applications, and sophisticated data analytics. These innovations are expected to improve efficiency, enable risk prediction, and foster greater consumer engagement in sustainability initiatives. By embracing these trends, retail companies in Latvia can ensure that their CSR strategies remain impactful, relevant, and aligned with both societal expectations and global sustainability goals.

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