Innovative Marketing Approaches and Transformation of Slovenian Consumer Behavior During the COVID-19 Pandemic

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The COVID-19 pandemic has presented unparalleled difficulties, requiring flexible and adaptive responses from both societies and enterprises. This study aims to analyze new marketing techniques and operational adjustments that have emerged in response to the global crisis, focusing on their impact on customer behavior and purchase choices. Utilizing an abductive paradigm with a sequential exploratory design, we combined qualitative and quantitative research approaches. We gathered data from a sample of 204 Slovenian respondents through an online survey, which underwent rigorous examination using structural equation modeling (SEM). This study is based on consumer behavior theory and frameworks innovation marketing. Our findings reveal significant shifts in customer behavior, notably a transition towards online retail platforms. Education also appears to play a crucial role in influencing consumer behavior changes, especially within the pandemic's complex context. Additionally, changes in income distribution directly affect product demand dynamics in the market. The practical significance of this study is emphasized by the actionable suggestions it provides to policymakers and organizations. These recommendations equip them with the necessary understanding to effectively adjust their strategies to meet the changing demands and preferences of customers to prepare for future possible crises.

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INTRODUCTION

The COVID-19 pandemic has led to unprecedented global challenges that have transformed numerous aspects of daily life and exerted a significant influence on business operations across multiple industries and markets (Vadnjal 2024). In this environment, our study examines the novel marketing strategies and corporate advancements that have emerged as a result of the pandemic. Our goal is to thoroughly examine the impact of these factors on consumer behavior and purchasing decisions in particular. To do so, we employed both theoretical models and empirical evidence to assess the extent of their impact.

Retailing has long been an important subject of economic and marketing studies. The academic pursuit and curiosity to understand consumer behavior can be traced back to the 1930s and 1940s (Schwarzkopf 2015). The retail industry has changed significantly in recent years, especially in the 21st century. These changes include the rise of non-traditional retail options, the growth of e-commerce, and the emergence of a digital marketing revolution (Rita, Oliveira, and Farisa 2019).

Nevertheless, the retail industry has experienced significant and profound change due to the unexpected and far-reaching impact of the global COVID-19 pandemic. The current crisis has not only brought significant health and economic difficulties but also triggered profound changes in consumer behavior. Previous studies have recognized the transition from offline to online shopping, exacerbated by various psychological stressors that contribute to compulsive buying tendencies. However, there is currently a lack of comprehensive research in this specific area. Choura and Abou Jeb (2021) identified a gap in the academic literature and emphasized the need to examine changes in consumer behavior resulting from the epidemic.

This study aims to fill the existing knowledge gap by investigating the impact of the pandemic on consumer behavior, focusing specifically on changes in consumer channel preferences associated with the crisis.

In addition, we aim to clarify consumer criticisms and provide suggestions that can guide companies facing similar problems in the future.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

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Consumers' Behavior in Pandemic Periods

Throughout history, infectious diseases with pandemic potential have emerged and dissipated. The transition from hunter-gatherer cultures to agricultural cultures has led to an increasing spread of infectious viruses in human societies (Dobson and Carper 1996). Extensive commerce and trade relationships across various geographic regions have accelerated and intensified human-animal interactions, leading to the widespread transmission of contagious animal diseases to humans, including plague, cholera, influenza, and pandemics (Lindahl and Grace 2015).

COVID-19 was a profoundly disruptive pandemic that deeply harmed all countries and their economies globally (Barai and Dhar 2024; Rop 2024). Consequently, e-commerce has surged, with consumers increasingly buying goods online. As a result, it is critical to identify and assess the impact of these behavioral changes. According to Fihartini et al. (2021), health risk was found to be more important in triggering online purchasing behavior than elements related to the ethics of online retailing; therefore, consumers are more concerned about their health when making purchases. Laato et al. (2020) argued that the business environment changed significantly after the pandemic outbreak. Due to the impact of this pandemic on online retailing and the current economic climate, customers' purchasing habits have changed.

According to the findings of Kajzer (2020), the outbreak of the pandemic in the second quarter of 2020 caused a sharp decline in economic activity despite stringent measures to contain it. While many countries implemented measures to preserve jobs, companies also responded by downsizing their workforce, especially temporary workers, and greatly increased the number of workers dispatched by companies to wait for work temporarily. These measures have largely cushioned the impact of the decline in economic activity on the fall in employment and the rise in unemployment.

At the beginning of the pandemic, young and less educated people, especially women, were most affected. Young people are more likely than other age groups to be affected by temporary employment, which

is particularly the case in Slovenia (student employment). The greater vulnerability of the less educated is also influenced by the high proportion of workers with low education in the sectors of activity that were most affected by the restrictive measures (Kajzer 2020). Thus, in this study, we contend that differences in consumers' educational levels have resulted in differences in their feelings and perceptions of the impacts of the pandemic on their spending decisions.

During the pandemic, people's behavior also changed – they socialized less, avoided physical contact, and their mental health deteriorated. All of this, along with country-imposed restrictions on movement, also led to changes in consumer spending patterns. Before the pandemic, consumers physically traveled to do their grocery shopping, bought clothes in stores, and ate in cafés and restaurants. During the pandemic, global populations experienced and endured months of lockdowns and extreme social distancing measures, resulting in decreased accessibility to physical stores and heightened consumer health concerns. Consequently, people began to alter their spending habits, prioritizing essential purchases and transitioning from traditional in-store shopping routines of Slovenian consumers to online shopping and ordering take-outs. The fact that the pandemic is forcing consumers to store differently and swap the check-out line for online shopping more than ever before has also been noted by various researchers such as J.P. Morgan (2020a), Barua (2021), Gu et al. (2021), Das, Sarkar, and Debroy (2022), and Tymkiw (2022). This is also reflected in data from the Statistical Office of the Republic of Slovenia (2021), which admits that one of the main effects of the pandemic on the spending habits of Slovenian consumers is the significant increase in online shopping. They also note that, according to their 2021 data, the share of e-shoppers has increased in most age groups – most among 65–74-year-olds (to 37%; 22% in 2020) and least among 16–24-year-olds (to 87%; 84% in 2020). There were 86% of e-purchasers among 25–34-year-olds (88% in 2020), 90% among 35–44-year-olds (80% in 2020), 77% among 45–54-year-olds (64% in 2020), and 53% among 55–64-year-olds (40% in 2020) (Statistical Office of the Republic of Slovenia 2021). This is consistent with the findings of Pantano et al. (2020), who found that older consumers who are less computer literate also use online shopping because it gives them a greater sense of security. In a research study by Morales (2021) about pandemic consumer behavior towards e-commerce and retail stores in the United States, individuals aged 70 and older exhibited a notable decrease in

online shopping preferences. This shift can be attributed to the challenges they face in using electronic devices and in navigating online shopping platforms and networks. Therefore, this paper argues that the pandemic and its associated precautionary measures have shifted consumer purchasing behavior – from traditional physical shopping to online shopping – regardless of the literacy and preferences of older consumers towards such changes.

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Travel restrictions, social isolation, limitations on the sale of particular commodities, and customers cutting costs and postponing projects severely impacted global sales. This dramatic drop in sales has made it challenging for retail businesses to recover, especially with fixed expenses remaining unchanged amid stagnant income growth. According to data from the financial accounts at J P Morgan Chase (J P M C), small business revenues fell by 30–50% at the end of March and the beginning of April, and by 40% in May 2020 (Farrell, Wheat, and Mac 2020; Kim, Parker, and Schoar 2020). As governments worldwide mandated confinement measures and significantly reduced in-person customer interactions in stores, the retail sector has been particularly adversely affected. This has necessitated a significant shift in how consumers live and interact with businesses. Some small firms were able to transition to alternate channels, such as online platforms, and many were able to cut expenses to offset revenue loss. The accessibility of online marketing played a crucial role in driving sales, as advertisements could be designed and customized to suit consumer preferences based on activities, age, education, and geographic location. A study conducted in India by Murugan et al. (2020) revealed that the pandemic has led to significant lifestyle changes for everyone. Anxiety about the future is widespread, with particular concerns focused on family, friends, festivals, and society as a whole. As a result, people make an effort to acclimatize to the new normal. Because they are all more worried about the effects of the pandemic, the pandemic outbreak has forced them out of their daily routines and disrupted their way of life from an economic and health outlook. The coronavirus epidemic has caused customers to change how they behave in terms of their purchasing habits. Consumers panicked as a result of the unexpected shutdown and hurried to stock up on necessities. It has altered both the custom and practice of shopping in a basket.

Previous studies have found that the pandemic evoked a range of psychological and emotional responses among consumers, such as fear

of contracting the virus from others, anxiety related to unvaccinated or ill individuals, uncertainty of income generation due to economic instability, and fear of job loss, all of which are factors that have influenced consumer spending habits to varying degrees (Di Crosta et al. 2021).

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The 'E-Commerce Report 2022' (Heureka!group 2022) shows a significant increase in the frequency of online shopping in Slovenia, with 76% of respondents regularly shopping online. According to the mentioned research, the majority of online buyers are members of Generation X, i.e. those over 45 years old, and they most often buy clothes, footwear, and fashion accessories. An increase in the average purchase value, which is currently €100, was noted. The shift towards online shopping can largely be attributed to restrictions that hindered physical store visits, prompting many businesses to offer online shopping services to adapt to the evolving environment. Consequently, the pandemic has spurred digital transformation in shaping Slovenian consumers' spending habits, resulting in increased reliance on online platforms. This shift is evident in changes to purchasing channels and changes in consumer preferences, as highlighted in the 'E-Commerce Report 2022' (Heureka!group 2022). The report reveals that in 2022, Slovenians made the most online purchases in categories such as clothing and footwear, electronics, and home and garden products. Electronics and home and garden items maintained their top positions in terms of value in online shopping. This reveals that Slovenian consumers increased their purchases of convenience items during the pandemic; with reduced mobility, consumers sought products that facilitated their daily activi-

ties. Di Crosta et al. (2021) found a different pattern emerge in Italy, as they observed a rising trend in the sales of essential items. They highlighted that consumer priorities shifted towards basic needs such as food, hygiene, and cleaning products. Additionally, unlike the findings in Slovenia, the pandemic led to decreased sales in certain product categories (e.g., clothing) and increased sales in others (e.g., entertainment products) in Italy.

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The 'E-Commerce Report 2022' (Heureka!group 2022) also highlighted that the pandemic had a lasting impact on the behavior of online shoppers. During the pandemic, COVID-19 measures brought domestic online consumers closer to local online stores. This shift is reflected in the declining share of purchases from foreign stores: in 2019, 36% of purchases were made from foreign stores, decreasing to 26% in 2020, 16% in 2021, and further dropping to only 14% in 2022. Although online shopping was already a significant alternative before the pandemic and emerged as the most significant substitute, it now plays an even larger role in our daily lives. Youn, Lee, and Ha-Brookshire (2021) claimed that consumers have been looking for alternate methods of acquiring goods and services in order to protect themselves and their families from contracting the coronavirus. According to J.P. Morgan's (2020a) research, consumer spending habits during the pandemic have undergone significant changes. Health considerations have become paramount, leading to increased sales of household cleaners and disinfectant products like Dettol and Lysol. With work shifting online and restaurants and cafés closed, sales of coffee and other food items have also surged. Conversely, sales of hair color, moisturizers, sun creams, and cosmetics have seen double-digit declines.

Another major change in Slovenian consumers' spending habits is the increased demand for take-out food services. Due to the shutdown of cafés and restaurants, people searched for a way to ensure the enjoyment of their favorite dishes, which manifested in a surge of delivery services such as E-Food (Slov. E-hrana), Wolt and Glovo, which was confirmed also by STA (2020) and Meden (2020). Also, many cafés and restaurants were offering take-out options, which allowed customers to enjoy their meals without leaving their homes, which was confirmed also by Rabuza (2020).

In summary, research suggests that the pandemic and its related precautionary measures had a lasting effect on altering consumers' spending habits. Some studies show that consumer spending focused

primarily on essential items such as food, hygiene products, cleaning supplies, and disinfectants. This shift is attributed to job losses, reduced income, and lower levels of well-being. Conversely, an alternative perspective suggests that the pandemic and its associated precautionary measures, including social isolation, prolonged periods spent at home, and the curtailment of life events and celebrations, have shifted consumer spending habits towards increased expenditures on convenience products that facilitate daily activities. Based on the preceding academic discussion, we aim to address the central question about how retail organizations implemented innovative marketing strategies to cater to diverse demographic groups of Slovenian consumers during the COVID-19 pandemic. To explore this, two research questions emerged as follows:

RQ1 *How did the pandemic crisis and its associated precautious measures transform Slovenian consumer spending habits?*

RQ2 *How did Slovenian consumers' educational level influence their shopping habits during the pandemic period?*

Innovative Marketing in Crisis Periods

In this section, we review relevant literature to establish a theoretical foundation for understanding the relationships among innovation, marketing, and consumer behavior, particularly during times of crisis like the COVID-19 pandemic. Despite the significant disruption caused by the COVID-19 pandemic to the global economy, Slovenia has been acknowledged for its resilience, both during the pandemic and in its post-pandemic recovery efforts (Rostan and Rostan 2024).

A central feature of resilience is innovation, which is widely regarded as a critical driver of organizational success (Nouairi et al. 2024). Competitive advantage, manifested through factors like profitability, cost efficiency, and human and structural capital, often hinges on innovation (Jeong and Chung 2023). In today's rapidly evolving business environment, innovation is not merely an option but a necessity. Innovation is essential for an organization's adaptation to external pressures and competition, and a means to achieve a competitive edge and foster success.

Historically, crises such as financial recessions, health emergencies, and natural disasters have spurred significant innovations that benefit humanity (Phillips, Roehrich, and Kapletia 2023). Examples range

from vaccines for infectious diseases to GPS technology and antibiotics like penicillin. However, crises also pose immediate challenges to businesses, including cash flow issues, supply chain disruptions, and the need for branch closures. Therefore, companies must incorporate innovation into their operations, especially in marketing, to ensure their survival (Jeong and Chung 2023). During crises, a customer-centric approach becomes paramount. Pilukiene and Spudiené (2022) stress the importance of focusing on customer needs and desires, as customer-centric businesses are better equipped to ensure satisfaction and loyalty. Innovative marketing approaches that prioritize customer-centricity can significantly impact consumer behavior and purchasing decisions.

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Businesses responded to the COVID-19 pandemic with innovative marketing approaches and business innovations, and these adaptations influenced consumer choices (Di Crosta et al. 2021). Virtual experiences, in particular, emerged as a creative and effective way for businesses to connect with consumers, while adhering to social distancing and safety measures. Virtual events and experiences provide interactive and immersive opportunities for consumers to engage with brands and products (Jamunadevi et al. 2021). For example, a fashion retailer could organize a virtual fashion show, allowing customers to explore clothing lines and accessories from the comfort of their homes. Similarly, sports teams hosted virtual fan nights that facilitated interactions between fans and players, coaches, and team personnel. These virtual experiences not only maintained brand engagement but also provided innovative ways for consumers to interact with products and services.

According to the 'E-Commerce Report 2022' by Heureka!group (2022), during the COVID-19 epidemic, health concerns made physical shopping restricted or less desirable. Consequently, many consumers turned to online platforms to meet their shopping needs, necessitating the development of user-friendly and effective e-commerce solutions. As a way to cater to changing consumer behavior, businesses employed various strategies in e-commerce. Companies improved their e-commerce platforms to ensure a seamless shopping experience, incorporating features like user-friendly interfaces, secure payment options, and comprehensive product information. Businesses leveraged multiple channels, including social media and email campaigns, to reach a broader audience of potential customers and inform them about their online

offerings. Companies adapted their product offerings to align with shifting consumer preferences, focusing on items suitable for home use, such as home fitness equipment, furnishings, and home office supplies. E-commerce innovations played a pivotal role in reshaping consumer shopping habits during the pandemic, as convenience and safety became paramount considerations for consumers.

Data-driven marketing strategies gained prominence during the pandemic, as businesses sought to make the most of the customer data at their disposal. Leveraging customer data allowed companies to create more targeted and personalized marketing messages, improving the overall consumer experience. According to J.P. Morgan's research (2020b), businesses tailored their offers based on individual customer preferences, thereby ensuring that consumers received promotions and discounts relevant to their interests. Data analysis enabled companies to recommend relevant content to consumers, such as product recommendations, articles, or videos, enhancing their engagement with the brand. Pricing strategies were adjusted dynamically based on factors like demand, inventory levels, and consumer behavior, optimizing pricing for both the business and the consumer. Gathering feedback from customers provided valuable insights for product and service enhancements, ensuring that businesses met evolving consumer needs effectively.

Data-driven marketing not only influenced immediate purchasing decisions by presenting tailored and relevant offers but also contributed to long-term customer loyalty and retention. To further investigate the impact of innovative marketing approaches and business innovations during the COVID-19 pandemic, we analyzed statistical data and research findings. This empirical evidence provides insights into how these innovations influenced consumer behavior and purchasing decisions. Analysis of data from the Statistical Office of the Republic of Slovenia (Statistični urad Republike Slovenije 2023) sheds light on changes in business expenditures related to marketing, innovation, and research and development (R&D) during the pandemic.

Innovative marketing approaches and business innovations significantly impacted consumer behavior and purchasing decisions during the COVID-19 pandemic. Virtual experiences provide businesses with a unique opportunity to maintain consumer engagement and influence purchasing decisions. By offering immersive and interactive events, companies could bridge the gap created by restrictions on physical gath-

erings. According to Youn, Lee, and Ha-Brookshire (2021), consumer feedback and engagement metrics indicated that virtual experiences positively influenced purchasing decisions. Attendees of virtual events often reported an increased desire to purchase products or services showcased during the experience. This illustrates the power of virtual engagement in shaping consumer behavior and driving sales. The accelerated adoption of e-commerce during the pandemic significantly reshaped consumer shopping habits. With physical shopping becoming less accessible or desirable due to safety concerns, consumers turned to online platforms for their shopping needs.

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Data-driven marketing strategies, including personalized offers and content recommendations, played a pivotal role in influencing consumer behavior. By leveraging customer data, businesses could target their marketing messages more effectively and create better experiences for customers (STA 2020; Meden 2020). Innovative marketing approaches and business innovations proved crucial for the survival and resilience of businesses during the pandemic. Companies that adapted quickly to changing circumstances and consumer behavior were better positioned to weather the crisis.

Customer-centric innovations were key to enhancing business resilience. Companies that prioritized customer safety and satisfaction by implementing safety measures, contactless deliveries, and responsive customer support were viewed favorably by consumers. These customer-centric innovations not only retained existing customers but also attracted new ones, contributing to business resilience and growth. Consumers appreciated businesses that demonstrated empathy and responsiveness during uncertain times.

The COVID-19 pandemic underscored the critical role of innovation in business survival and success. Businesses that adapted and embraced innovative marketing approaches not only navigated the crisis effectively but also shaped consumer behavior in ways that will likely have lasting impacts on the business landscape (Rabuza 2020). These lessons in innovation and consumer-centricity provide valuable insights for businesses preparing for an uncertain future. In this study, we explored how innovative marketing approaches, including virtual experiences, e-commerce, and data-driven marketing, influenced consumer behavior and purchasing decisions during the COVID-19 pandemic. Our analysis of empirical evidence, theoretical insights, and consumer feedback revealed that these innovations played a pivotal role in shaping con-

sumer choices and driving business survival and resilience. Theoretical foundations highlighted the importance of innovation as a driver of competitive advantage and success, especially during crises. Innovations that prioritize customer-centricity were shown to be particularly effective in influencing consumer behavior positively.

Hypotheses

Based on the theoretical findings, we formulated two hypotheses to guide our study:

H1 *The pandemic transformed Slovenian consumers' spending habits.*

H2 *Education is positively correlated with the pandemic effect on Slovenian consumers' shopping habits.*

METHODOLOGY

The methodology employed in this research is crucial for ensuring the validity, reliability, and relevance of the study's findings. It involves quantitative data collection and analysis methods, as well as rigorous validation procedures. Below is an overview of the key aspects of the methodology. This study utilizes a quantitative research approach, which emphasizes the use of numerical data to draw conclusions. Quantitative research is systematic and objective, making it suitable for investigating the influence of innovations on diversified businesses during the COVID-19 pandemic on consumers' purchase decisions. This approach enables researchers to generalize findings to a larger population based on a carefully selected sample. The research began with the development of a questionnaire. This questionnaire was crafted after an extensive review of existing scientific and professional literature. By aligning the questions with existing knowledge and theory, the questionnaire ensures that data collection is focused on relevant variables and constructs. Before administering the main survey, the research team rigorously tested the questionnaire to ensure its validity and reliability.

Measurement Scales

The scales used in the study were adapted from previously validated instruments, which measured consumer behavior in times of crisis (e.g. Laato et al. 2020). We modified mentioned instruments to fit the specific context of the COVID-19 pandemic and Slovenian consumers, like

the addition of items related to health concerns, online shopping preferences and pandemic-related restrictions. The scale was pre-tested to ensure its reliability and validity. Cronbach's alpha for each construct was above 0.76, indicating strong internal consistency.

Cronbach's alpha is a statistical measure that assesses the internal consistency of a questionnaire. It checks if the questions in the survey are measuring the same construct. A high Cronbach's alpha value indicates good reliability. In this study, Cronbach's alpha was employed to ensure that the questions consistently measured the intended variables. Factor analysis is a statistical technique used to identify underlying factors or dimensions within a set of variables. This step helped determine if the questions in the questionnaire aligned with the research objectives. It also identified any variables that might need to be excluded.

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Sample Size

The sample size of 206 participants was determined with the aim of ensuring robust and reliable results based on both practical and theoretical considerations. Although a minimum number of 65 respondents would have been sufficient for a study with 13 questions, we opted for a significantly larger sample size in accordance with the guideline for a 5 to 1 ratio to increase the confidence level of 80% in our analysis.

Furthermore, it is generally accepted that a minimum sample size of 200 respondents is recommended for Pearson correlation analyses and structural equation modeling (SEM) to obtain stable and generalizable results. By recruiting 206 participants, we ensured that we both met the required minimum sample size and exceeded the 5 to 1 ratio, which ensures greater reliability of the results.

Participants were recruited via online platforms (such as Facebook and Instagram) and email distribution lists. Although a random sample was used due to time and resource constraints, it was verified that the sample was representative of the Slovenian population in terms of gender and age distribution, which was confirmed by chi-square tests.

The primary data collection method used in this research was an online survey conducted via the 1KA survey tool. The online platform offered respondents anonymity, encouraging candid responses. The survey was executed over a substantial period, running from October 26, 2022, to January 20, 2023, to allow for a diverse range of participants to contribute. Convenience sampling was employed to select survey

participants. This non-probability sampling technique involves selecting participants based on their accessibility or availability. The research team distributed the survey through multiple channels, including social media platforms (such as Facebook), emails, pre-existing groups (e.g., college student organizations affiliated with the Faculty of Organization Studies), and in-person recruitment by students in various Slovenian cities (Ljubljana, Maribor, Koper, and Kranj). While this approach limits the generalizability of the results to the broader population, an analysis comparing the sample to the population was conducted to assess representativeness.

The research team determined the sample size based on statistical calculations. The aim was to achieve a confidence level of 80%, requiring a minimum of 164 respondents to ensure that the actual values fell within ±5% of the surveyed values. Kaiser-Meyer-Olkin (KMO) measure assesses the sampling adequacy for factor analysis. A high KMO value (closer to 1) indicates that the data is suitable for factor analysis. In this study, the KMO measure produced a value of 0.729, confirming the appropriateness of the data. Bartlett Test of Sphericity test determines whether the correlation matrix is an identity matrix, indicating that factors are uncorrelated. A significance level of less than 0.05 suggests that the data is suitable for factor analysis. The Bartlett test produced a significant result, further confirming the suitability of the data.

RESULTS

The chi-square test regarding gender did not yield any statistically significant results ($p > 0.05$), indicating that the observed sample values do not significantly deviate from the predicted population values. As shown in table 1, males constitute 51.5% of the sample, compared to 50.2% of the overall population. Meanwhile, females make up 48.5% of the sample, versus 49.8% of the population. Thus, the sample data appears to be consistent with the demographic distribution of the Slovenian population.

The chi-square test results for age were not statistically significant ($p > 0.05$), as indicated in table 2. This suggests that there is no noticeable difference between the observed values in the sample and the expected values in the population. According to the data, 8.3% of respondents are aged between 20 and 24, slightly higher than the corresponding figure in the general population, which is 8.2%. Similarly, 10.3% of respondents fall between the ages of 30 and 34, just under the 10.4%

TABLE 1	Gender Comparison between the Sample and the Populat.	
Gender	Sample	Population
Male	51.5	50.2
Female	48.5	49.8
Total	100.0	100.0

NOTES In percent. $\chi^2 = 0.018, p = 0.893$.

TABLE 2	Age Comparison between the Sample and the Population	
Age	Sample	Population
20–24	8.3	8.2
25–29	8.8	8.9
30–34	10.3	10.4
35–39	11.8	11.7
40–44	12.7	12.9
45–49	12.3	12.4
50–54	11.8	11.8
55–59	12.3	12.3
60–64	11.8	11.5
Total	100.0	100.0

NOTES In percent. $\chi^2 = 3.706, p = 0.883$.

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observed in the general population. Moreover, a higher proportion of respondents (11.8%) compared to the general population (11.7%) are in the age group of 35 to 39 years old. In the sample, 12.7% of individuals are between the ages of 40 and 44, which closely matches the 12.9% in the overall population for this age group. Similarly, the sample includes 12.3% of individuals aged 45 to 49, compared to 12.4% in the population. Both the sample and the population have 11.8% of individuals aged 50 to 54. This pattern continues for individuals aged 55 to 59, with 12.3% in both the sample and the population. Additionally, 11.8% of the sample's participants are aged 35 to 39, slightly higher than the 11.5% observed in the entire population for this age group. Based on the sample data, it can be inferred that the demographic distribution among Slovenian citizens is reflective of the broader population.

The reliability of the entire questionnaire can be determined from table 3, which indicates exceptionally high reliability. This is evident from the Cronbach's alpha value of 0.951. The Cronbach's alpha coefficient was calculated for each construct and shows a satisfactory level of reliability ($\alpha > 0.76$) for all constructs.

H1 *The pandemic transformed Slovenian consumers' spending habits.*

The suitability of the data for factor analysis is confirmed by the KMO measure (0.710) and Bartlett's test for sphericity (sig. < 0.05), as shown in table 4. The strategy used in our study involved the use of primary axis factorization followed by varimax rotation with Kaiser nor-

TABLE 3 Cronbach's Alpha

Variables	α	N
How the pandemic transformed Slovenian consumer's spending habits?	0.951	36
Effect of the pandemic on consumers' shopping habits	0.764	7
Effect of pandemic on more frequent purchases of sports, leisure, electronics, and home goods	0.883	11
Effect of pandemic measurements (like mask usage, disinfecting and the vaccination, testing or recovery proof) on consumers' shopping habits	0.924	13
Effect of retail sale and consumer services on consumers' shopping habits during the pandemic	0.838	4

TABLE 4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.710
Bartlett's test of sphericity	Approx. χ^2	1334.399
	DF	595
	Sig.	0.000

malization. All observed variables have a correlation coefficient greater than 0.2, indicating that they jointly contribute to the understanding of the phenomenon under study and that none of the variables need to be excluded from the analysis.

According to the findings presented in table 5, SPSS recommends excluding four factors due to their values above 1. In a similar vein, it can be observed that four factors account for approximately 60.174% of the shared variance.

- Factor 1: Effect of retail sales and consumer services on con-

TABLE 5 Total Variance Explained

Factor	Initial Eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
1	12.322	35.207	35.207	11.958	34.166	34.166	8.351	23.861	23.861
2	5.771	16.488	51.695	5.400	15.428	49.594	6.204	17.726	41.586
3	2.295	6.557	58.252	2.000	5.713	55.307	3.699	10.569	52.155
4	2.022	5.776	64.028	1.704	4.867	60.174	2.807	8.019	60.174

NOTES Column headings are as follows: (1) total, (2) percentage of variance, (3) cumulative percentage.

sumers' shopping habits during the pandemic (Sale offer, A more diverse online selection of goods and services; Food and drink; Personal hygiene products; Cosmetics; Clothing and footwear; Technical products; Kids products; Health products and food supplements; Advertising increased during the pandemic in comparison to the time before the pandemic; The communication from the goods and services providers was more effective; The company offers were wider; Accessibility to goods and services providers was better; The pandemic has permanently changed my shopping habits).

- Factor 2: Effect of the pandemic on consumers' shopping habits (I have been shopping less often during the pandemic; I have avoided visiting physical shop locations during the pandemic; I have visibly altered my shopping habits during the pandemic; I have paid for products and services during the pandemic, which I wouldn't have paid for normally; I have used a credit card for payments instead of cash during the pandemic; I have been shopping online more frequently during the pandemic; In my opinion, the pandemic has altered the habits of goods and services consumers; Health care; Fear of infection; Fear of relatives getting infected; Product price; Availability of goods; Other).
- Factor 3: Effect of pandemic on more frequent purchases of sports, leisure, electronics, and home goods (Furniture; Home appliances; Gardening products; Computing; Sports and leisure).
- Factor 4: Effect of pandemic measurements (like mask usage, disinfecting and the vaccination, testing or recovery proof) on consumers' shopping habits (Face mask usage; Use of disinfectants; Proof of vaccination, testing or recovery).

It can be concluded that the questionnaire ensures appropriate validity and is therefore suitable for conducting the survey. The statistical significance of the Kolmogorov-Smirnov and Shapiro-Wilk tests (sig. < 0.05) indicates that the variables considered are not normally distributed. Therefore, we used nonparametric tests in our analysis.

The results from table 6 indicate that gender differences were statistically significant for several statements in the Mann-Whitney test. Women tended to agree more with statements about avoiding physical stores, using credit cards instead of cash during the pandemic, and expressing fear of infecting relatives. In contrast, men showed stronger

TABLE 6   Mann-Whitney Test

Item	Gender	(1)	(2)	(3)
I have avoided visiting physical shop locations during the pandemic	Male	105	91.80	4074,500
	Female	99	113.84	(0.005)
	Total	204		
	Female	99	97.33	
	Total	204		
I have used a credit card for payments instead of cash during the pandemic	Male	105	94.66	4374,000
	Female	99	110.82	(0.040)
	Total	204		
	Female	99	107.65	
	Total	204		
Fear of relatives getting infected	Male	105	93.61	4264,500
	Female	99	111.92	(0.018)
	Total	204		
	Female	99	95.05	
	Total	204		
Accessibility to goods and services providers was better	Male	105	110.15	4394,000
	Female	99	94.38	(0.046)
	Total	204		
	Female	99	104.49	
	Total	204		

NOTES   Column headings are as follows: (1) N, (2) mean rank, (3) Mann-Whitney test (sig.).

agreement with the statement about better accessibility to goods and services providers. Other statements did not show statistically significant differences based on gender (sig. > 0.05).

The findings from table 7 show that the Kruskal-Wallis test revealed statistically significant differences (sig. < 0.05) for several statements related to age. Respondents aged 30 to 34 were more likely to agree with statements about avoiding physical stores and fearing infecting relatives, while those aged 20 to 24 were least likely to agree with these statements. Those aged 50 to 54 were most inclined to use credit cards instead of cash during the pandemic, whereas those aged 60 to 64 were least likely. Respondents aged 55 to 59 were most likely to express fear of infection, with those aged 20 to 24 showing the least concern. Additionally, respondents aged 45 to 49 were most likely to agree that the pandemic permanently changed their shopping habits, compared

TABLE 7 Kruskal-Wallis Test

Item	Age	(1)	(2)	(3)
I have avoided visiting physical shop locations during the pandemic	20–24	17	67.41	20,397
	25–29	18	96.83	(0.009)
	30–34	21	132.48	
	35–39	24	91.42	
	40–44	26	98.17	
	45–49	25	130.16	
	50–54	24	99.83	
	55–59	25	102.30	
	60–64	24	95.21	
	Total	204		
I have used a credit card for payments instead of cash during the pandemic	20–24	17	86.68	20,701
	25–29	18	109.17	(0.008)
	30–34	21	124.95	
	35–39	24	95.02	
	40–44	26	108.85	
	45–49	25	111.96	
	50–54	24	128.96	
	55–59	25	79.62	
	60–64	24	77.19	
	Total	204		

to those aged 50 to 54, who were least likely to agree with this statement. Other statements did not show statistically significant differences based on age (sig. > 0.05).

The Kruskal-Wallis test indicated significant differences (sig. < 0.05) in respondents' agreement with several statements based on their formal education, particularly regarding avoidance of physical spaces during the pandemic, belief that the pandemic has permanently altered consumers' behaviors of acquiring goods and services, health care, fear of becoming sick, fear of infecting relatives, and perceptions about the increased efficacy of advertising and communication efforts. Respondents with the SOK Level 10: Doctoral Education most agreed with the statements about avoiding physical stores, health care, and fear of becoming sick, while respondents with the SOK Level 2: Elementary Education least agreed with those same statements. Respondents with SOK Level 3: Graduation Certificate agreed the most with

TABLE 7   *Continued from the previous page*

Item	Age	(1)	(2)	(3)
Fear of infection	20–24	17	54.09	18,275
	25–29	18	108.56	(0.019)
	30–34	21	113.43	
	35–39	24	103.65	
	40–44	26	91.08	
	45–49	25	108.96	
	50–54	24	97.48	
	55–59	25	120.38	
	60–64	24	113.58	
	Total	204		
The pandemic has permanently changed my shopping habits	20–24	17	110.65	19,225
	25–29	18	85.83	(0.014)
	30–34	21	121.07	
	35–39	24	90.60	
	40–44	26	106.96	
	45–49	25	128.32	
	50–54	24	73.83	
	55–59	25	114.58	
	60–64	24	89.23	
	Total	204		

NOTES   Column headings are as follows: (1) N, (2) mean rank, (3) Kruskal-Wallis test (sig.).

statements about ongoing changes to consumer behavior and perceiving an increase in advertising during the pandemic. Respondents with SOK Level 9: Specialization diploma after academic/professional higher education; research master's degree most strongly agreed statements about fear of infecting relatives, while respondents with SOK Level 2: Elementary Education were least likely to agree. The Kruskal-Wallis test did not show statistically significant differences for other statements (sig. > 0.05), indicating no significant differences based on formal education for those specific statements.

Descriptive statistics data indicate that respondents agree (M = 3.8; SD = 0.975) with the statement that the pandemic has affected the change in consumer buying habits of products and services, while they also agree (M = 3.6; SD = 1.21) with the statement that they paid with a credit card instead of cash during the pandemic (M = 3.8; SD = 1.15)

Fear of infecting relatives
(M = 3.8)

Health care
(M = 3.7)

The factors that have
influenced consumer's
shopping habits during
the pandemic

Fear of own infection
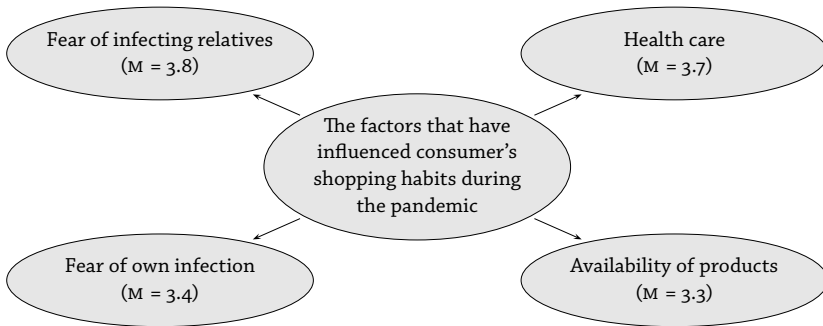(M = 3.4)

Availability of products
(M = 3.3)

FIGURE 1   The Factors That Have Influenced Consumer's Shopping Habits during
the Pandemic

and they shopped online more often during the pandemic (M = 3.6; SD = 1.3). Respondents also agreed that the factors that influenced their shopping habits during the pandemic were fear of infecting relatives (M = 3.8; SD = 1.17) and health care (M = 3.7; SD = 1.06). The lowest level of agreement among respondents was the statement that they bought products and services during the pandemic they would not have bought otherwise (M = 2.3; SD = 1.01). The factors that influenced the purchasing habits of Slovenian consumers during the pandemic are shown in figure 1, which shows that fear of infecting relatives had the greatest influence on Slovenian consumers' shopping habits during the pandemic, followed by health care, fear of contracting the disease themselves, and availability of products.

The Spearman correlation test in table 8 shows that respondents have permanently made significant changes with their shopping habits (sig. < 0.05), including shopping less often, avoiding physical locations, shopping online more frequently, and belief that the pandemic has led to long-lasting changes in their consumer habits.

As shown in table 9, the coefficient of determination (R^2) is 32.3%, which means that the independent variables have a fairly strong influence on the dependent variable (The pandemic has permanently changed my shopping habits.). A statistically significant (sig. < 0.05) influence is present for the variables: 'I have visibly altered my shopping habits during the pandemic,' 'I have used a credit card for payments instead of cash during the pandemic,' 'I have been shopping online more frequently during the pandemic,' and 'In my opinion, the pandemic has altered the habits of goods and services consumers.' The beta coefficient is positive for the variables, 'I have visibly altered my shopping

TABLE 8 Spearman's Correlation Coefficient (The Pandemic Has Permanently Changed My Shopping Habits)

I have been shopping less often during the pandemic	R	0.184^{**}
	Sig.	0.008
	N	204
I have avoided visiting physical shop locations during the pandemic	R	0.373^{**}
	Sig.	0.000
	N	204
I have visibly altered my shopping habits during the pandemic	R	0.449^{**}
	Sig.	0.000
	N	204
I have paid for products and services during the pandemic, which I wouldn't have paid for normally	R	0.178^{*}
	Sig.	0.011
	N	204
I have used a credit card for payments instead of cash during the pandemic	R	0.197^{**}
	Sig.	0.005
	N	204
I have been shopping online more frequently during the pandemic	R	0.459^{**}
	Sig.	0.000
	N	204
In my opinion, the pandemic has altered the habits of goods and services consumers	R	0.421^{**}
	Sig.	0.000
	N	204

NOTES ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

habits during the pandemic' (β = 0.228), 'I have been shopping online more frequently during the pandemic' (β = 0.292) and 'In my opinion, the pandemic has altered the habits of goods and services consumers' (β = 0.208), indicating a positive influence, and negative for the variable: 'I have used a credit card for payments instead of cash during the pandemic' (β = −0.146), indicating a negative influence.

The Spearman correlation test presented in table 10 indicates that nearly all pairs of factors – Factor 1 (impact of vendors on consumer purchases), Factor 2 (impact of the pandemic on shopping habits), Factor 3 (more frequent purchases of sporting, recreational, electronic, and household goods), and Factor 4 (impact of the use of masks, disinfection, and vaccination, test, or recovery certificate on shopping) – are significantly (sig. < 0.05) positively correlated. However, there is no sta-

TABLE 9   Linear Regression

Item	B	β	Sig.
The pandemic has permanently changed my shopping habits	0.716		0.027
I have been shopping less often during the pandemic	−0.022	−0.025	0.724
I have avoided visiting physical shop locations during the pandemic	0.096	0.107	0.215
I have visibly altered my shopping habits during the pandemic	0.219	0.228	0.007
I have paid for products and services during the pandemic, which I wouldn't have paid for normally	0.031	0.029	0.644
I have used a credit card for payments instead of cash during the pandemic	−0.135	−0.146	0.046
I have been shopping online more frequently during the pandemic	0.239	0.292	0.000
In my opinion, the pandemic has altered the habits of goods and services consumers	0.227	0.208	0.004

NOTES R^2 = 0.323.

TABLE 10   Spearman's Correlation Coefficient

Factor		(1)	(2)	(3)	(4)
(1) Effect of sellers on your shopping during the pandemic	r	1.000	0.417*	0.668**	0.148*
	Sig.	–	0.011	0.000	0.034
	N	204	36	204	204
(2) Effect of the pandemic on your shopping habits	r	0.417*	1.000	0.191	0.443**
	Sig.	0.011	–	0.263	0.007
	N	36	36	36	36
(3) More frequent purchases of sports, leisure, electronics and home goods	r	0.668**	0.191	1.000	0.140*
	Sig.	0.000	0.263	–	0.045
	N	204	36	204	204
(4) Effect of mask usage, disinfecting and the vaccination, testing or recovery proof on shopping	r	0.148*	0.443**	0.140*	1.000
	Sig.	0.034	0.007	0.045	–
	N	204	36	204	204

NOTES   ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

tistically significant correlation between Factor 2 (impact of the pandemic on shopping habits) and Factor 3 (more frequent purchases of sporting, recreational, electronic, and household goods) (sig. > 0.05).

As reflected in table 11, the coefficient of determination (R^2) is 35.0%,

TABLE 11   Linear Regression

Factor	B	β	Sig.
(2) Effect of the pandemic on your shopping habits	1.438		0,005
(1) Effect of sellers on your shopping during the pandemic	0.372	0.362	0.068
(3) More frequent purchases of sports, leisure, electronics and home goods	−0.086	−0.089	0.636
(4) Effect of mask usage, disinfecting and the vaccination, testing or recovery proof on shopping	0.289	0.422	0.008

NOTES $R^2 = 0.350$.

TABLE 12   Revenue from the Sale of Goods in Retail Stores in Slovenia

Category	2016	2017	2018	2019	2020	2021
Companies and other organisations	2176002	2305304	2633775	2664618	1981040	1894322
End consumers	8858921	10115700	10743306	10841382	10457774	11890323
Total	11034923	12421004	13377081	13506000	12438814	13784645

NOTES   In 1000 EUR. Based on data from Statistical Office of the Republic of Slovenia (https://www.stat.si/StatWeb/en).

which means that the independent variables have a fairly strong influence on the dependent variable (factor 2: effect of the pandemic on shopping habits). A statistically significant (sig. < 0.05) influence is present for the variable: 'Factor 4: Impact of the use of masks, disinfection and the vaccination, testing or recovery certificate on shopping habits.' The beta coefficient is positive (β = 0.422), indicating a positive influence.

The observed positive correlation between the intensity and direction of the latent variables suggests that Hypothesis 1 is somewhat supported. Our research findings suggest that the shopping behavior of Slovenian consumers was indeed affected by the pandemic, albeit temporarily. However, it is important to note that this impact was not significant or permanent. Statistical data in Slovenia show a remarkable observation when examining the distribution of revenue from the sale of goods in a retail store (measured in 1000 EUR), as shown in table 12. In particular, a decrease in revenue was observed in 2020, which can be attributed to the impact of the pandemic. This decrease deviates from the previously observed trend of steady revenue growth in the sale of

TABLE 13 Increase of Revenue from the Sale of Goods by Product Group in Retail Trade in Slovenia

Item	2018	2019	2020	Δ (%)	2021
Food, beverages, and tobacco products	3,729,665	3,752,378	3,911,822	4.25	4,042,213
Furniture, lighting, carpets, and floor coverings	272,590	247,696	271,647	9.67	398,019
Household appliances and electrical devices for personal care	182,248	215,551	234,633	8.85	249,793
Computer, telecommunications, audio, video devices	413,719	389,772	460,932	18.27	485,384
Games and toys	76,898	77,561	82,047	5.78	103,735
Gardening equipment, seeds, seedlings, flowers, small animals	283,002	322,949	374,527	15.97	283,772
Cosmetic products and toiletries	409,910	393,649	394,852	0.31	383,003
Items for personal use	82,088	63,429	73,660	16.13	152,900
Construction and installation materials	388,761	349,356	386,158	10.53	262,710
Home maintenance and repair products	179,101	183,618	190,828	3.93	209,721
Tools and equipment for home and garden	254,670	233,850	239,230	2.30	284,749

NOTES In 1000 EUR. Based on data from Statistical Office of the Republic of Slovenia (https://www.stat.si/StatWeb/en).

goods in retail stores, as shown by a comparison with data from previous years.

As reflected in table 13, the biggest increase in revenue from the sale of goods by product group in retail trade in Slovenia in the year 2020, compared to the year 2019, can be noted in product group computer, telecommunications, audio, video devices (18,27%), items for personal use (such as watches, alarm clocks, jewelry, precious stones, travel cases, bags, wallets, baby carriages, car seats, umbrellas, sunglasses, wall thermometers, etc.) (16,13%), gardening equipment, seeds, seedlings, flowers, small animals (15,97%) and also in purchase of construction and installation materials (10,53%).

H2 *Education is positively correlated with the pandemic effect on Slovenian consumers' shopping habits.*

TABLE 14 Spearman's Correlation Coefficient (Formal Education)

I have been shopping less often during the pandemic	r	0.174[*]
	Sig.	0.013
	N	204
I have avoided visiting physical shop locations during the pandemic	r	0.351[**]
	Sig.	0.000
	N	204
I have visibly altered my shopping habits during the pandemic	r	0.223[**]
	Sig.	0.001
	N	204
I have paid for products and services during the pandemic, which I wouldn't have paid for normally	r	0.062
	Sig.	0.379
	N	204
I have used a credit card for payments instead of cash during the pandemic	r	0.181[**]
	Sig.	0.009
	N	204
I have been shopping online more frequently during the pandemic	r	0.210[**]
	Sig.	0.003
	N	204
In my opinion, the pandemic has altered the habits of goods and services consumers	r	0.206[**]
	Sig.	0.003
	N	204

NOTES ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

The Spearman correlation test, as shown in table 14, indicates a statistically significant positive correlation (sig. < 0.05) between Slovenian customers' shopping behavior and their level of formal education. No statistically significant correlation was found between formal education and the statement 'I have paid for products and services during the pandemic which I wouldn't have paid for normally' ($p > 0.05$).

We chose structural equation modelling (SEM) because it is able to test complex relationships between multiple dependent and independent variables simultaneously. SEM also allows the integration of latent variables, like changes in consumer behavior and marketing strategies, which cannot be directly observed but are inferred from the data. SEM can also provide a comprehensive overview of how different factors, like income and education, interact to influence consumer decisions.
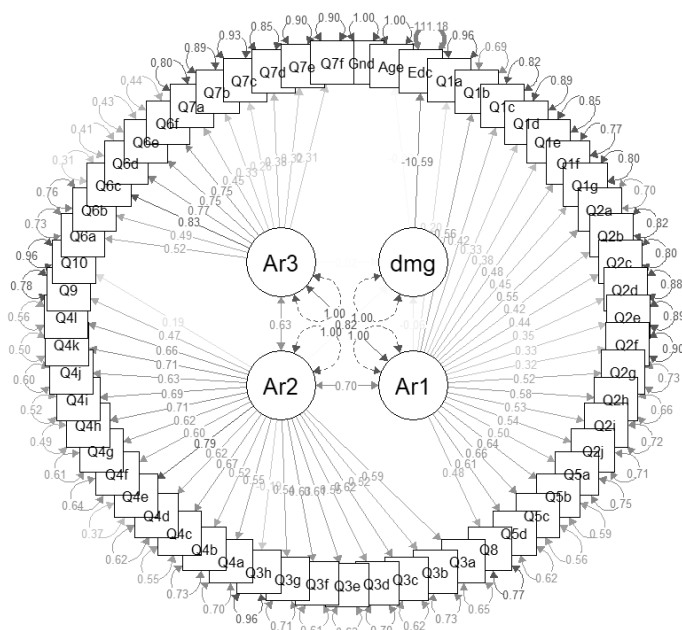
FIGURE 2

SEM model

Results of the Structural Equation Modeling (SEM)

A flexible statistical technique called structural equation modeling (SEM) makes it possible to investigate complex correlations between numerous variables. The result of this analysis consists of several significant parts, each of which offers insightful information on the goodness-of-fit of the model, correlations among latent variables and parameter estimation. The SEM analysis is thoroughly examined, with a detailed explanation of its sections, results, and implications, as shown in figure 2.

The investigation begins with a close examination of three different factors related to demographic traits in the demographic section. The underlying distributional assumption of the data is evaluated using the Mardia test, a multivariate normality test. The distribution of the data is asymmetric, as evidenced by the skewness test score of 9.9064. The *p*-value (0.4487) indicates that this skewness is not statistically significant despite its size. Similar to this, the distribution's peakedness is measured by the kurtosis test statistic, which is –3.9154. The *p*-value associated with this statistic is 0.0001, indicating significant kurtosis. As a result, it can be inferred that this demographic dataset violates the multivariate normality assumption. Each variable is subjected to the

Shapiro-Wilk test in order to further investigate univariate normality. Age, Gender, and Education all have *p*-values of 0, which denote a departure from the normality assumption.

[222]

This section begins an investigation into the connections between the many variables covered. The evaluation demonstrates high skewness (3650.8784) and kurtosis (23.9004) using the Mardia test. Both skewness and kurtosis' corresponding *p*-values of 0 signify significant departures from normality. The 22 variables are subsequently subjected to univariate Shapiro-Wilk tests, and in every case, the *p*-values are recorded as 0, supporting the non-normal distribution.

Using the Mardia test once more, significant deviations from normality are shown by strong skewness (4438.2873) and kurtosis (30.2513), both of which have *p*-values of 0. This section begins an investigation into the connections between the many variables covered. The evaluation demonstrates high skewness (3650.8784) and kurtosis (23.9004) using the Mardia test. Both skewness and kurtosis' corresponding *p*-values of 0 signify significant departures from normalcy. The 22 variables from Article 1 are subsequently subjected to univariate Shapiro-Wilk tests, and in every case, the *p*-values are recorded as 0, supporting the non-normal distribution.

Using the Mardia test once more, significant deviations from normality are shown by strong skewness (4438.2873) and kurtosis (30.2513), both of which have *p*-values of 0. A variety of fit indices are shown, serving as metrics to assess the agreement between the model and the patterns in the data that have been observed. The degree to which the model accurately reproduces the observed covariance patterns is indicated by the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI). Both indices have low values, which could be interpreted as a sign that the model and the data don't fit together well. The model provides relatively high values of 0.180 and 0.159 for the Root Mean Square Error of Approximation (RMSEA), which measures how accurately the covariance patterns in the data are reproduced. These numbers are outside the range that a strong model fit requires. The strong RMSEA values, which are over the advised cut-off point of 0.176, support the idea of poor model fit.

Estimates of the associations between latent and observable variables are provided by this aspect. Despite not being observable, latent variables are inferred from several observed variables. The parameter estimates, shown as standardized coefficients, explain the strength and

pattern of the relationships between the variables. These coefficients represent the expected change in the dependent variable that results from a change of one unit in the independent variable.

The results of this SEM analysis highlight two key issues: poor model fit and violations of normality assumptions. The dataset does not conform to the assumptions of a normal distribution, as shown by the results of the Mardia test, which highlights significant skewness and kurtosis, as well as the univariate Shapiro-Wilk tests, which consistently demonstrate non-normality. This finding raises questions about whether it is appropriate to use parametric procedures that are based on these presumptions.

[223]

The results of the model fit indices confirm that the proposed structural equation model and the patterns of the observed data do not fit together satisfactorily. A poor alignment between the model and the actual data is suggested by low CFI and TLI values along with high RMSEA values, highlighting the potential distortion of underlying relationships between variables. Although useful, the parameter estimations should be used with caution due to the model's poor normality and fit. These estimates' validity could be called into question, and their interpretation might not accurately reflect the true relationships in the population. Exploratory factor analysis (EFA) was conducted to determine the underlying structure of the consumer behavior variables, despite the relatively small number of items, and to ensure that the scales measuring different aspects of consumer behavior (e.g. online shopping, health issues, etc.) were unique and valid. This step was crucial for validating the constructs before testing the structural relationships with SEM.

Although the sample size of 204 may be considered small for some types of studies, SEM can still be used effectively when paired with EFA to identify latent factors. Previous research has shown that even a sample size of 150 can provide reliable SEM results, especially when the data have clear factor structures, as confirmed by the Kaiser-Meyer-Olkin measure and Bartlett's test in this study. This approach allowed us to refine the factor structure with EFA before testing the relationships with SEM to ensure a robust analysis despite the limited sample size.

In conclusion, our SEM study highlights significant issues caused by non-normality assumptions and poor model fit. Careful consideration is required due to the obvious non-normal distribution, which is highlighted by the Mardia and Shapiro-Wilk tests, as well as the poor model

fit, which is shown by the fit indices. To find more precise underlying patterns in the data, alternative analytical techniques that might include non-parametric methodologies should be explored. It is crucial to provide a thoughtful interpretation that recognizes the restrictions imposed by non-normality and poor model fit on the conclusions drawn from the research and accounts for these constraints.

[224]

Conceptual Model

We relied on the conceptual model shown in figure 3 as the primary framework for our research. A conceptual framework serves as the fundamental basis for the entire research project. In this study, a conceptual model is proposed to shed light on the factors that influence customers' buying behaviors when deciding between online and brick-and-mortar stores. The model was developed by drawing on relevant theories, concepts, and empirical findings from surveys.

A conceptual model from figure 3 has elaborated the practicability of factors affecting consumer behavior. On the one hand, the suggested factors have frequently been identified by earlier studies concerned with the influencing factors on consumer purchasing behavior; however, the combined findings of the earlier studies have built the significant cornerstones on which the analysis of the empirical results has been based. However, the factors addressed in the conceptual model are supported by the survey results in the suggested conceptual model utilizing two separate methods. The first strategy entails directly endorsing a factor that has been addressed. This was done by employing one or more survey statements that did so. For instance, it has been noted in surveys that making offline purchases can be an entertain-
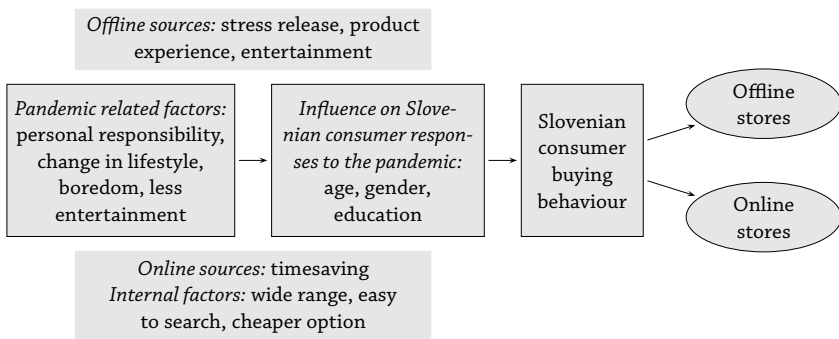

FIGURE 3   Conceptual Model

ing pastime for some people, as the survey comments have explicitly supported this finding. Shopping is a social activity because people go shopping for fun and to hang out with friends, and this statement was supported by 39 participants.

The second statement, that people typically go shopping alone for entertainment and to observe people around them, was supported by 17 participants. In that, the addressed factors are supported by comments that would indirectly confirm the factors, the second technique is somewhat comparable to the first way in terms of directly verifying the elements. It is possible to indirectly affirm a component that has been addressed by employing assertions that exile a factor that lies on the other extreme from the treated factor. People may prefer making offline purchases since they can physically experience the product, as was directly supported by 58 participants who stated that they shop offline so they can physically inspect and test the products. However, the issue was indirectly supported by 66 of the participants who stated that they would not make an online purchase if they could not physically touch and examine the object. Based on the findings of these surveys, researchers were able to develop this conceptual model. Therefore, this model will help researchers gain in-depth knowledge about influencing consumer behavior under pandemic situations.

[225]

Theoretical Foundation of Conceptual Research Model

The theoretical framework of this study is based on the theory of consumer behavior and innovation marketing. In particular, the theoretical foundations relating to the impact of a pandemic on consumer and retailer decision-making form the basis for the conceptual model. Previous research, such as that by Schwarzkopf (2015) and Rita, Oliveira, and Farisa (2019), shows that consumer behavior in times of crisis is influenced by psychological stress and economic changes. In addition, innovation theory, as discussed by Phillips, Roehrich, and Kapletia (2023), provides a framework for understanding the role of innovative marketing approaches in times of disruption. This theoretical work guided us in developing our hypotheses, which focused on how the COVID-19 pandemic changed the behavior of Slovenian consumers.

DISCUSSION

The COVID-19 pandemic has resulted in significant changes in consumer behavior and retail sales patterns, necessitating a thorough ex-

amination and comprehension of these changes. This discourse aims to provide a more comprehensive analysis of our empirical results, elucidating the intricate complexities and consequences inherent in the observed phenomena. The research conducted revealed a notable disparity in sales patterns across many product categories throughout the pandemic. In the fiscal year of 2020, several sectors such as computers, telecommunications equipment, gardening tools, and personal use products demonstrated a notable increase in revenue. Conversely, other sectors encountered a fall in sales during this period. The observed patterns align with prior research, particularly in contrast to the results reported by Vukasović (2020), which indicated a substantial increase in food expenditures during the pandemic. It is of utmost importance to acknowledge that the effects of the pandemic on sales went beyond the immediate health crisis, embracing other dimensions like economic, social, and behavioral aspects (Vukasović 2020).

The gender disparities in consumer behavior identified in our study are consistent with larger societal trends. Females demonstrated a heightened propensity to refrain from visiting brick-and-mortar establishments, preferred credit card transactions, and voiced apprehensions over the transmission of infection to their family members. The aforementioned findings are consistent with prior studies that have demonstrated women's tendency to perceive health hazards with greater severity and exhibit higher levels of compliance with preventative actions (Tan et al. 2022; Moran and Del Valle 2016; Muto et al. 2020). Recognizing and understanding these gender distinctions is crucial for organizations seeking to customize their strategy to effectively address the varied requirements and concerns of their consumer base.

Age-related variations have been identified as an essential factor influencing consumer behavior in the context of the pandemic. The age cohort ranging from 30 to 34 years demonstrated the highest level of concurrence about statements about the avoidance of stores and concerns about transmitting the infection to their family members. In contrast, 20–24-year-olds exhibited reduced concurrence with these assertions. The discrepancy in preferences about cash and credit card payments was also observed among individuals belonging to different age groups. The observed variation in behavior related to age is consistent with prior studies that have shown older persons, especially those who are more susceptible to risks, tend to exhibit more cautious and risk-averse behaviors in times of health crisis (Bruine de Bruin 2020). More-

over, the inclination towards digital payment methods among younger participants reflects the societal transition towards technologically advanced payment options, as noted by Iftode (2019).

The study conducted by our research has revealed the significant influence of educational level on customer behavior in the context of the ongoing pandemic. There was a positive correlation observed between those possessing advanced educational credentials, specifically doctorates, and their inclination to endorse comments about store avoidance, health care concerns, and fear of infection. On the other hand, individuals who possessed secondary school certificates demonstrated a decreased level of concurrence with these propositions. Bruine de Bruin (2020) asserts that the impact of external variables on consumer behavior is significantly influenced by one's educational degree.

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The characteristics that have been found as crucial in altering shopping habits during the epidemic align with previous research findings. Prominent factors motivating individuals include apprehension regarding the transmission of the virus to their family members, concerns about overall health, personal anxieties around infection, and the availability of essential products (Vukasović 2020). The aforementioned findings highlight the persistent importance of psychological and health-related elements in the process of consumer decision-making amidst periods of crises. Gaining comprehension of these factors enables firms to acquire the necessary knowledge for developing messaging and strategies that are in line with consumer attitudes and priorities.

Our research has broad implications for the fashion retail industry and potentially other sectors, encompassing more than just understanding the effects of the pandemic on consumer behavior. Moreover, the findings of this study have direct implications for the fashion industry, particularly regarding the shift towards e-commerce and online consumption. The rise in online shopping during the pandemic, as evidenced by a significant increase in purchases of clothing and accessories via online platforms, emphasizes the need for fashion retailers to improve their digital presence. In addition, virtual experiences such as online fashion shows and augmented reality fitting rooms can bridge the gap created by the closure of physical shops. By adapting to these changes, fashion businesses can not only survive but thrive in a post-pandemic retail landscape.

Organizations, specifically those operating within the fashion retail

industry, have the opportunity to utilize this valuable information to customize their product offerings, marketing approaches, and operational frameworks to align with an altered market environment. In the context of the post-pandemic period, it is crucial to prioritize adaptability and responsiveness to effectively address the changing preferences of consumers. Organizations that acknowledge these transformations and adjust their strategies accordingly are well-positioned to flourish in a context marked by unpredictability and swift alterations (Vukasović 2020).

CONCLUSION

The two hypotheses of this study are closely linked to the central research objectives, namely understanding the change in consumer behavior and the adoption of innovative marketing strategies during the COVID-19 pandemic. Hypothesis 1 examines how the pandemic has fundamentally changed the consumption habits of Slovenian consumers, which is key to identifying shifts in market dynamics. Hypothesis 2 focuses on the role of education and hypothesis that higher levels of education are positively correlated with behavioral changes. Both hypotheses contribute to the overall goal of identifying key factors influencing consumer decisions and the effectiveness of new marketing techniques during the global crisis.

Based on the extensive research and empirical observations of the comprehensive study, it is evident that the COVID-19 pandemic resulted in significant changes in consumer behavior. The complex changes, which are closely tied to the structure of our society, are supported by a variety of important elements such as gender, age, education, and various contextual circumstances. Changes in consumer behavior have, therefore, affected purchasing habits and shed light on the complex interplay of sociological, economic, and health-related factors. This study makes a significant contribution to the current scientific debate on the significant impact of the pandemic on (Slovenian) consumer behavior. It successfully combines theoretical concepts with their practical implications in the real world. The study's observations and conclusions offer important recommendations for businesses and policymakers and provide a comprehensive understanding of the complex processes that drive consumer behavior in times of crisis.

The COVID-19 pandemic exerted a notable influence on the heightened adoption of virtual commerce within the context of Slovenia. As a

result of the constrained accessibility of physical retail establishments and growing apprehensions regarding the welfare and security of customers, there has been a discernible surge in the utilization of online platforms by consumers to conduct their purchases. The observed shift in consumer purchase patterns was marked by a transition from discretionary items to critical daily necessities, as well as goods related to professional needs and home entertainment. In addition, the crisis led to a significant change in consumer support for local businesses. Slovenian consumers showed a collective sense of solidarity with the local economy, clearly tending to favor local businesses as opposed to their online counterparts from abroad. The study provides a compelling argument that challenges the widely held assumption that people with higher levels of education would change their purchasing behavior more significantly in times of crisis. This observation underscores the need for further research to examine additional elements that may have an impact on consumer behavior during times of turmoil. The multi-layered nature of individual psychology requires the inclusion of sensory components in the context of the shopping experience.

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An in-depth examination of gender discrepancies found that women spend a greater proportion of their expenditures on health and protection items such as masks, hand sanitizers, and disinfectants compared to men. This discrepancy highlights women's higher awareness of risk and their propensity to implement health protection measures with greater care. The influence of age on consumer behavior during the pandemic was identified as an important factor. Significant differences in behavior were found across age groups, including 30- to 34-year-olds and 20- to 24-year-olds, in terms of store avoidance and concern about disease transmission to family members. One notable observation concerned the divergent propensity to use credit cards as opposed to cash (digital payments), with Generation Z proving more flexible on this point than older customers.

Individuals' education levels were identified as an important element in shaping consumer responses to the epidemic. Individuals with higher levels of education, particularly those with doctoral degrees, tended to agree more with statements related to avoiding business, concern about health care, and fear of infection. On the other hand, respondents with secondary education were least likely to agree with the above statements. Significantly, respondents with master's degrees agreed more strongly with concerns about infecting their families com-

pared to their peers. This comprehensive study categorizes the factors affecting consumer spending during the pandemic into four different dimensions. These dimensions include the impact of retail and consumer services on consumer spending behavior during the pandemic; the impact of the pandemic itself on consumer spending behavior; the impact of the pandemic on increased purchases of various goods such as sporting, recreational, electronic, and household goods; and the impact of pandemic measures such as the use of masks, disinfection protocols, vaccination efforts, testing procedures, and recovery evidence on consumer spending behavior.

In summary, this study illuminates various aspects of consumer behavior during the COVID-19 epidemic in Slovenia. With these scientific insights, companies and policymakers can adeptly respond to evolving consumer demands in the post-pandemic period. However, it is crucial to acknowledge limitations stemming from our study, such as its regional focus and data collection timeframe. A more extensive study spanning multiple countries/continents and a longer duration, accounting for different pandemic phases, could offer broader insights. Our findings serve as a practical foundation for companies to adjust their strategic plans, especially in digital marketing and consumer engagement. This study contributes to existing literature by theoretically analyzing how health, economic, and sociological factors interact to shape consumer behavior during crises. Rigorous statistical methods ensure the robustness of our findings, alongside adherence to ethical standards for participant anonymity and informed consent. Connecting our findings with current research through insightful data visualizations aims to foster a coherent understanding. Addressing the profound implications of global crises requires thorough, detailed assessments by scientists, businesses, and governments alike. Therefore, our study could influence future research efforts aiming to further understand consumer behavior amidst the evolving post-COVID landscape.

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