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# Exploring Consumer Resilience During COVID-19: Demographics, Consumer Optimism, Innovativeness and Online Buying

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## Abstract

This study investigates the predictors and outcome of consumer resilience given the Covid-19 pandemic and retail context. Predictors are represented by demographic characteristics and underexplored protective factors of consumer optimism and innovativeness, while the outcome variable includes online buying. Empirical research was conducted on the convenience sample of 400 Croatian consumers. Research results show that, given demographic characteristics, gender plays an important role in consumer resilience. In terms of the individual protective factors, both consumer optimism and innovativeness positively influence consumer resilience. In addition, consumer resilience negatively impacts online buying. Findings also have practical implications for companies' marketing strategies.

*Keywords:* Consumer resilience, Optimism, Innovativeness, Demographics, Online buying, Covid-19

*JEL classification:* M20, M30, M31

## Introduction

The Covid-19 pandemic has strongly impacted our ways of living and buying, thus posing many challenges for both consumers and companies. Tough situations can make consumers vulnerable, but they can also stimulate consumers to be proactive, that is, to learn to adjust to a crisis situation or disaster finding the ways of building the resilience (Lorenz & Dittmer, 2016; Maurer, 2016). Resilience represents a dynamic process of positive adaptation given the adverse circumstances, whereby it is dependent on two conditions: the presence of stressful context and an individual's ability to adapt and recover (Ang et al., 2018). Resilience is important in terms of both consumers' and firms' perspective. Namely, understanding resilience is important for marketers, since they aspire to the consumer perseverance, and also for the consumers who strive to achieve their consumption goals, whereas consumer resilience represents an important, but unrecognized, factor in

positive consumption experiences (Ball & Lambertson, 2015). Furthermore, it is reasonable to expect that the disruption will continue, along with the fear and anxiety, and thus the resilience will remain to be essential for making the future decisions, facing the reality and recovering from obstructions (Shragai, 2020). While resilience helps companies to undergo crises and achieve sustainability in order to successfully deliver products and services to their consumers (Ortiz-de-Mandojana & Bansal, 2016), in insecure market circumstances resilience plays a vital role in consumer attitudes formation and improvement of consumer well-being that are crucial for decision-making process (Rew & Minor, 2018). In addition, resilience helps consumers to return to earlier status that was common prior to the crisis (Rew & Minor, 2018). These notions suggest the importance of resilience as a vital indicator of consumer's proper functioning and self-efficacy.

A lot of resilience research has focused on livelihoods and climate change adaptation (Smyth & Sweetman, 2015). However, researchers point out that the concept of resilience is underexplored in

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social research and theory (Maurer, 2016; Mayntz, 2016), and especially marketing disciplines (Rew & Minor, 2018). In addition, it is crucial to stress that causes of resilience may differ depending on the context and specific challenges (Ungar, 2008). The past literature suggests that resilience studies concerning marketing and consumer experience are scarce (Ball & Lamberton, 2015; Maurer, 2016; Mayntz, 2016; Rew & Minor, 2018). However, when investigating resilience, it is important to consider the notion of an individual interacting with the environment (Waller, 2001), which is covered within our study in terms of the Covid-19 and retail context/environment. Furthermore, given Covid-19, new studies stress consumer resilience as being a major area for the academic research (Sheth, 2020). Therefore, these notions represent strong reasons for researching consumer resilience within the purchase context tied to the Covid-19 crisis that might result in novel findings explaining the consumers' responses to threat and their coping mechanisms given their individual characteristics when facing unexpected events. In order to adequately explore these impacts, we apply Kumpfer's (2002) theoretical resilience framework that captures both processes and outcome variables. Namely, this theoretical framework explains the resilience, i.e. threat coping, given the interaction of environmental stressors, personal processes and internal self-characteristics (e.g. protective factors) and adaptation (outcome) that can come in a variety of forms, including resilient and/or maladaptive reintegration (Kumpfer, 2002). Protective factors can serve as facilitators in the process of overcoming the adversity (Smokowski et al., 1999), while denoting the possible insulation from the negative effects and representing the effects that can influence and alter an individual's response to environmental impacting (mal)adaptive outcome (Fletcher & Sarkar, 2013). In addition, the variety of factors can be perceived as protective factors, such as individual characteristics, family ties and external system support (Smokowski et al., 1999), including the positive emotions and extraversion (Fletcher & Sarkar, 2013) that are perceived as important for our study. Namely, our study focuses on consumer optimism (as positive emotion) and innovativeness (as extraversion) in a form of protective factors vital for consumer resilience. Furthermore, adaptation can be positive/successful (resilient reintegration) and/or less positive, i.e. lower state of reintegration (maladaptive reintegration) (Kumpfer, 2002). Hence, by utilizing Kumpfer's resilience framework, we aim to explore whether consumers decided, or not, to adapt to online buying with respect to their resilience

affected by their personal characteristics of consumer optimism and innovativeness as protective factors that might help in overcoming the adversity and building their resilience. In this way, we add novelty to this resilience framework encompassing new environmental stressor, new protective factors and outcome variables. First, given the stressor/challenge, Covid-19 provides a novel environmental context that would explain the interaction of individual characteristics and resilience process towards the adaptation within the retail setting (online buying). Second, the exploration of consumer optimism and innovativeness as important predictors adds novelty to Kumpfer's resilience framework in terms of the protective factors in general and with respect to the Covid-19 retail setting. Third, the effect of resilience on online buying will explain the type of an adaptation in terms of the pandemic, i.e. resilient integration or maladaptive reintegration. To the best of knowledge, no prior study has assessed the consumer resilience in terms of the retail setting given the pandemic context in a similar way.

## 1 Literature overview and hypotheses development

Pandemic has not avoided any country or consumers. However, currently it is unknown how resilient consumers are; what the relevance of demographics and individual traits of consumer optimism and innovativeness is for their resilience and its further impact on their behavior (online buying) as a way of handling the pandemic challenge. This is important, because consumers respond differently to threat (Berger, 2020), which might determine their further behavior. In addition, personality traits are relevant for individual's protection given the adversity, since they might result in positive adaptive behavior (Rutter, 1987). Furthermore, since an individual interacts with an environmental stressor, internal self-characteristics (e.g. different cognitive and affective competencies/strengths), also known as protective factors (Rutter, 1987), are necessary for handling difficult tasks and/or personal environments (Kumpfer, 2002). Concerning the resilience literature, many factors are considered to be protective factors, such as positive emotions, extraversion, self-efficacy, spirituality, self-esteem and positive affect (Fletcher & Sarkar, 2013), suggesting the crucial role of individual factors for one's resilience, i.e. response to adversity. Further reasons for researching the impact of consumer optimism and innovativeness on resilience lie within the notions that an optimism is important when facing

difficulties in real life that require critical thinking (Pintore, 2020; Taggart, 2020), whereby innovation is also seen as crisis-critical (Bar Am et al., 2020) as is the case with the research context of adversity (Covid-19). Therefore, optimism and openness to changes (innovativeness) are crucial in navigating the crisis, while Covid-19 represents a crisis that calls for researching the resilience and adaptive behaviors. In addition, the notion that ties the researched variables of optimism, innovativeness and resilience is the concept of one's psychological capital that plays an important role when faced with challenges and problem-solving situations (Baskaran & Rajarathinam, 2017). Moreover, the variety of personal traits, such as optimism, innovativeness, self-efficacy, perceived risk and resilience, are considered important for adaption behaviors in different contexts (Magotra et al., 2016). This strengthens the positioning of our research around the proposed model of researching the influence of personal characteristics on the resilience and its further impact on online buying adaptation behavior within the Covid-19 and retail setting. Hence, by utilizing Kumpfer's (2002) resilience framework, we aim to research the impact of demographic and personal variables/protective factors of optimism and innovativeness on consumer resilience and its effect on online buying (adaptation) within the Covid-19 and retail context.

### 1.1 Demographic characteristics and consumer resilience

General consumer behavior notions indicate that female and male consumers differ based on their shopping patterns, information processing, evaluations, and responses to different stimuli (Cleveland et al., 2003). Given these differences, it sounds reasonable to explore gender's potential relevance for the current context, as it might provide additional insights with respect to the pandemic experience, information processing and responses. Scholars argue that resilience might differ with respect to demographic characteristics, such as age, gender and education (Ang et al., 2018; Connor & Davidson, 2003). Researchers (Hirani et al., 2016) stress the importance of gender for resilience exploration due to its interaction with other factors, for instance, social expectations, perceptions and environmental factors, which differently influence female and male experiences and responses to adversity. In other words, men and women face the influence of different types of risk due to the economic, biological and cultural factors, including the gender roles, thus exhibiting different abilities to

handle the risk and cope with stressors (Kumar & Quisumbing, 2014). Previous studies have found that the demographic characteristic of gender could be used for predicting the stress and resilience, primarily in the context of security threats (Kimhi et al., 2020). Studies indicate that females are likely to show lower levels of resilience than males (Ang et al., 2018; Hirani et al., 2016; Rodriguez-Llanes et al., 2013; Yu & Zhang, 2007). In addition, Smokowski et al. (1999) argue that in disadvantaged situations, female individuals might be more resilient before adolescence and male ones after adolescence. Following the previous notions, it could be assumed that male consumers might be more resilient given the pandemic circumstance. Hence,

*H1: Male consumers tend to be more resilient than female consumers.*

When it comes to age, no evidence was found to support the exploration of age in terms of the pandemic setting. Nevertheless, some general notions could be considered when discussing the researched context. For instance, it seems that age influences protective factors that predict resilience whereby younger people might feel more resilient (Wasonga et al., 2003). In addition, past studies (Sun & Stewart, 2007) suggest that resilience is tied to self-esteem, which is lower in young individuals, and thus the latter might seem less resilient. Given the current lack of pandemic insights, this notion calls for additional reasoning about the role of age when it comes to a new perspective, such as pandemic, especially since Covid-19 brought changes in shifting to online environment and using technology, for some of the consumers for the first time. It seems that both younger and older consumers might be vulnerable considering the situation (Jourova, 2016) and that, besides age, resilience may differ depending on one's maturity (Southwick et al., 2014). Some scholars who focused on researching the resilience and youth found that the more resilient children have an ability to get adults to help them out and that resilient youth is often talented (Coutu, 2002). Other researchers determined that people aged 65 years seem to be more resilient than those aged 18–24 (Ang et al., 2018). According to some researchers (Kimhi et al., 2020), age might be helpful in predicting the stress and resilience when faced with security threats. In addition, Windle et al. (2008) argue that older people might exhibit higher levels of resilience due to their higher self-esteem, skillfulness and optimism. Drawing the analogy from the previous notions and

applying them to the pandemic setting for novel insights, the following can be proposed:

*H2: Older consumers show higher level of resilience.*

According to researchers (e.g. [Krasny et al., 2009](#)), a little attention is paid to the role of education for adaptive behavior and resilience literature. It was found that educational programs for secondary and university students might enhance resilience ([Krasny et al., 2009](#)). However, no direct connection between the educational levels and resilience was found in the past literature. Therefore, additional exploration of this relationship might provide novel findings. Another study shows that people with a college degree had a higher resilience level than those less educated ([Bonanno et al., 2007](#)). In addition, drawing from the findings that high achievers are strongly internally motivated and exhibit higher resilience ([Jackson & Martin, 1998](#)), and that higher educational choices diminish vulnerability, while increasing one's efficiency ([Ringold, 2005](#)), thus increasing resilience, the similar analogy can be applied in terms of the researched relationship. Namely, if individuals who advance on the educational level are perceived as high achievers and more efficient, education might be relevant for their higher resilience level. A study exploring the role of education for the susceptibility and resilience to memory aging stereotypes determined the important role of education, whereby it was found that individuals with a higher confidence in their own abilities are those more educated ones, because higher educated people tend to have a greater sense of control ([Andreoletti & Lachman, 2004](#)). Although this finding does not represent a direct insight for the researched impact of education on the resilience, it does tell about one's capabilities. Thus, if more educated people have a greater sense of control and confidence in their abilities, it could be assumed that they could be more resilient as well. Hence, it is assumed:

*H3: Higher educational level positively influences consumer resilience.*

### 1.2 Consumer optimism and resilience

Optimism can be defined as 'an individual difference variable that reflects the extent to which people hold generalized favorable expectancies for their future' ([Carver et al., 2010](#)). It is pervasive in every aspect of human lives ([Lim et al., 2011](#)) and plays an important role in adaptation to stressful conditions ([Souri & Hasanirad, 2011](#)). Thus, it reflects individuals'

positive attitude towards difficult situations and therefore is highly important for resilience ([Yu & Zhang, 2007](#)). Together with self-acceptance and self-esteem, optimism is important for maintaining and restoring healthy and efficacious functioning ([Sumi, 2014](#)). Some studies indicate that, when faced with a challenge, optimists can show a higher level of resilience, even if the situation is difficult and slow in progress ([Synder & Lopez, 2002](#)). Studies suggest the positive influence of optimism on health and recovery, although it is unknown why people feel optimistic when facing a health challenge ([Briley et al., 2017](#)). However, individuals with higher positive outcomes perception might show more effective self-regulation when faced with a particular event ([Nenkov et al., 2008](#)). The relevance of optimism for resilience lies in notion that optimism can build resilience. Namely, optimism may help reduce the sense of helplessness that occurs when individual feels like being out of control, which consequently helps in motivating individuals to take the constructive action ([Mills & Dombeck, 2020](#)). Furthermore, [Arampatzi et al. \(2020\)](#) argue that optimism and consistent positive expectations can be a source of resilience that might ease the coping and fasten the adaptation to difficult events. [Ball and Lambertson \(2015\)](#) claim that more resilient individuals are less likely to hide their emotions or feel negative emotions (e.g. anger), and have a higher level of optimism. In addition, scholars (e.g. [Fletcher & Sarkar, 2013](#)) note that individuals who score high on self-esteem and optimism are less likely to perceive an event as stressful. Furthermore, [Smokowski et al. \(1999\)](#) argue that optimism, along with other factors (e.g. hope, self-control and intelligence) can be seen as an important predictor of resilience among younger population. Moreover, positive emotions represent important protective factors within the resilience framework ([Fletcher & Sarkar, 2013](#)), therefore, it does make sense to explore whether consumer optimism (as positive emotion) might drive higher resilience. However, no studies regarding consumer optimism and consumer resilience relationship within the current pandemic context were found, thus our study might shed new light while contributing to Kumpfer's resilience framework in this regard. Hence,

*H4: Consumer optimism positively influences consumer resilience.*

### 1.3 Consumer innovativeness and resilience

Innovativeness is a personality trait that reflects an intrinsic propensity to search for new information, encouragements and experiences ([Hirschman, 1980](#);

Triwijayati et al., 2020), while encompassing cognitive and sensory aspects, which refer to the consumer's tendency to be open to new things and activate in thought, including the level to which they actively participate in change (Triwijayati et al., 2020; Venkatraman & Price, 1990). Understanding motivation in innovation while facing a change helps to comprehend decision making in adverse times (Soleas, 2020). This strengthens the role of innovativeness in fighting the hardship and protecting oneself. Furthermore, since resilience entails necessary motivation and psychological capability to recover from a tough situation, it is greatly dependent on an individual's capability to innovate and accomplish success (Raqshin & Nirjar, 2012). In addition, some studies (e.g. Baskaran & Rajarathinam, 2017) indicate that innovative behavior is positively associated with other different dimensions of psychological capital, including self-efficacy and resilience. Moreover, some scholars suggest that resilient individuals tend to be those who are more open toward change and more innovative (Roberts, 2016). Smokowski et al. (1999) claim that individuals who strive to find different ways of perceiving things tend to be more resilient. Furthermore, consumer innovativeness is an important driver in terms of an economic progress, including the acceptance of innovations, as well as in situations when individuals take new viewpoints and make innovative decisions as a way of addressing the change (Triwijayati et al., 2020). These findings strongly indicate the potential relationship between the protective factor of consumer innovativeness and resilience, which is aimed to be explored within our study given the pandemic and retail context. Therefore, considering the previously discussed notions, it could be assumed that higher individual innovativeness could be seen as an important characteristic and protective factor necessary for achieving a higher resilience level as a way of responding to a change, that is, pandemic. As such, it adds novelty to the Kumpfer's resilience framework in terms of the relevant protective factors given the new environmental stressor. Hence,

*H5: Consumer innovativeness positively influences consumer resilience.*

#### 1.4 Consumer resilience and purchase decision making

Consumer resilience can help consumers to better handle the adverse experience when it comes to behavioral actions and choices (Glandon, 2015). It can define consumer's relationship towards the

company (Eisingerich et al., 2011) that might be improved through consumer's willingness or intention (Rew & Minor, 2018). This suggests that consumer resilience might be relevant for making better purchasing decisions, including the possible adaptation in a form of online buying. In addition, Ball and Lamberton (2015) argue that more resilient individuals were more likely to continue to stay with the service provider as a way of finding the adequate solution, or to return to that same provider. This indicates the positive relationship between resilience and behavioral outcome. According to the existing findings, consumer resilience impacts an individual's actions (Maddi, 2012), including the decision making and everyday functioning (Connelly et al., 2017; Skondras et al., 2020). In addition, since consumer resilience represents an important factor in adapting the behavior to adverse circumstances and reaching one's empowerment (Ford et al., 2019), it seems plausible to explore whether consumers feel empowered with a possibility of buying online during the pandemic. Moreover, one's resilience, perceived as self-efficacy, represents a vital precondition for behavioral processes (Thakur, 2018). Therefore, perceived as self-efficacy, resilience might be relevant for consumer's decision making. Furthermore, consumers change their behavior when experiencing difficulties (Voinea & Filip, 2011) as a way of coping with the adversity. In addition, Kumpfer (2002) argues that when considering outcomes, resilience can result either in positive adaptation (positive or resilient integration) or maladaptive reintegration (negative or lower state of adaptation). In the context of our research, it means that resilient consumers might be prone to online buying, but it also means that they might show lesser proclivity to online buying as a way of maladaptive behavior. Due to the mixed findings of prior literature, and thus refraining from positive or negative influence of consumer resilience on online buying, the following more exploratory hypothesis is proposed:

*H6: Consumer resilience influences online buying.*

Given previously discussed relationships, research model is shown in Fig. 1.

## 2 Research methodology

### 2.1 Sampling and data collection

Survey was conducted on a sample of 502 Croatian consumers. For this purpose, a convenience sampling method was used, while the online

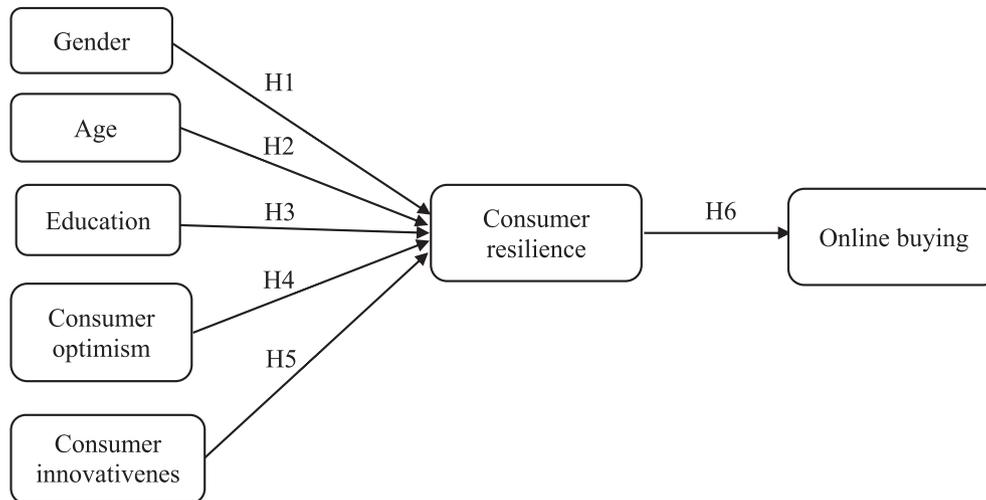


Fig. 1. Research model.

questionnaire was developed in Qualtrics and distributed through emails and social network applications (Viber, WhatsApp, Facebook). Prior to survey, the questionnaire was assessed by three marketing professors in order to develop the research constructs more adequately given the research setting. In addition, the questionnaire was pretested on ten respondents (questionnaire filling and one-to-one approach) and included more original items that were excluded upon pretesting due to the reported confusion, similarity, clutter or lack of clarity. Finally, at the beginning of the survey, the respondents were introduced to the purpose of the study as well as the context, whereby they were instructed to respond regarding their habits, attitudes and purchasing decisions during the Covid-19 pandemic. The empirical research took place from 05/25 to 06/04/2020. Data was checked for missing values (94) and outliers (8) and was purified by excluding these respondents. Thus, the final sample is  $N = 400$ . Data was further analyzed using confirmatory factor (CFA) and multiple regression analyses in SPSS23. Demographic variables included gender (codes: female-1, male-2), age (codes: 1 for 18–24, 2 for 25–34, 3 for 35–44, 4 for 45–54, 5 for 55–64, 6 for 65–74 and 7 for 75–84) and education (codes: elementary school-1, high school-2, college-3, university and higher-4). The sample structure is visible in Table 1.

## 2.2 Measurement scales

Measurement scales were adapted from the existing scholar's studies and were modified to a certain degree to fit the research context better. The modifications refer to wording and formulating the whole sentences out of shorter scale items (e.g. in

terms of resilience scale, instead of an original shorter item 'In control of my life', the items for this research were prolonged into complete sentences, such as, 'I think I am in control of my life'). This approach was done for all items, where needed. Consumer resilience was measured with seven items from Connor and Davidson's (2003) Resilience scale (2003). The items were: *I think I can easily adapt to changes.*, *I can handle all upcoming events.*, *When things look hopeless, I never give up.*, *When under pressure, I can focus and think clearly.*, *I think of myself as a strong person.*, *I can handle unpleasant feelings.*, *I think I am in control of my life.* Consumer optimism was measured with four items adapted from Nenkov et al. (2008), part on elaboration on potential outcomes EPO (positive outcome focus dimension), and Briley et al. (2017), Optimism (General) scale. The used optimism items are: *I always have a positive attitude that eventually everything will be all right.*, *I*

Table 1. Sample structure.

Characteristic	N	%
<b>Gender</b>		
Female	286	71.5
Male	114	28.5
<b>Age</b>		
18–24	74	18.5
25–34	111	27.7
35–44	140	35
45–54	45	11.3
55–64	19	4.7
65–74	10	2.5
75–84	1	0.3
<b>Education</b>		
Elementary school	2	0.5
High school	165	41.2
College	89	22.3
University and higher	144	36
<b>Total</b>	<b>400</b>	<b>100</b>

rather think about good things that might happen than about the bad ones., When I think about my decisions, I am more focused on their positive outcomes., I am optimistic about my future. Consumer innovativeness was assessed through five Manning, Bearden and Mad-den's (1995) items within the scale on Consumer innovativeness (CNS items: I often search for information about new products and brands., I like to visit places where I am exposed to information about new products and brands., I frequently search for different situations in which I can be exposed to new and different sources of product information., I often seek new product/purchasing experiences., I will use the first available opportunity to find out about new and different products.). All items for the researched constructs were rated on Likert scale of seven degrees (1-completely disagree, 2-disagree, 3-somewhat disagree, 4-neither agree or disagree, 5-somewhat agree, 6-agree, 7-completely agree). Online buying was measured with the item 'This pandemic situation forced me to buy products online', whereby the respondents were able to choose among the following answers: not at all, to a lesser degree, to a higher degree, completely.

### 3 Results

The research results show that consumers score higher on optimism and resilience, and moderately on innovativeness constructs. Mean and standard deviations are shown in Table 2.

#### 3.1 Confirmatory factor analysis

The measurements scales were tested for reliability, whereas Cronbach alpha values show that all measurement scales have high reliability: consumer optimism (0.853), consumer innovativeness (0.909) and consumer resilience (0.792). For additional reliability and validity scales' assessment, a confirmatory factor analysis was performed. The results (Table 3) show that the measurements scales exhibit adequate reliability and convergent validity.

In addition, due to the square roots of the AVE being higher than the correlation values, it can be concluded that the measurement scales also show the characteristics of discriminant validity (Table 4).

Table 2. Main constructs.

Variable	Mean	St.dev.
Consumer optimism	5.59	1.01
Consumer innovativeness	4.21	1.34
Consumer resilience	5.27	1.03

#### 3.2 Regression analysis

In order to test the proposed hypotheses, the hierarchical regression analysis was performed for H1–H5 hypotheses and the simple regression one for H6 hypothesis. The p-value of 0.05 or lower was set as a significant cut off point for hypothesis confirmation along with the proposed hypothesis direction. Provided p-values represent two-tailed tests, since the possibility of the relationships in both directions is tested regardless of the hypothesized ones. The regression results are shown in Tables 5–10.

For testing the impact of demographic (gender, age, education) and individual (consumer optimism and innovativeness) characteristics, a hierarchical multiple regression analysis was used. The first step included demographic variables, while the second one encompassed individual variables, which explained 21% of the total variance,  $F(5.394) = 20.485$ ,  $p < 0.001$ ;  $r^2$  changed for = 0.20 and  $F(2.394) = 49.970$ ,  $p < 0.001$ . The final model indicates three significant predictors of consumer resilience: gender ( $\beta = 0.095$ ,  $p < 0.050$ ), consumer optimism ( $\beta = 0.400$ ,  $p < 0.001$ ) and consumer innovativeness ( $\beta = 0.141$ ,  $p < 0.001$ ).

In order to test the influence of consumer resilience on online buying, a simple regression analysis was used. The results are visible in the tables below.

Table 3. Confirmatory factor analysis.

Factor/items	Factor loading	CR	AVE
Consumer optimism		0.854	0.594
CO1	0.786		
CO2	0.773		
CO3	0.743		
CO4	0.780		
Consumer innovativeness		0.901	0.648
CI1	0.666		
CI2	0.841		
CI3	0.900		
CI4	0.798		
CI5	0.803		
Consumer resilience		0.778	0.479
CR1	0.786		
CR2	0.867		
CR3	0.536		
CR4	0.510		

Table 4. Discriminant validity.

	CO	CI	CR
CO	(0.770)		
CI	0.198**	(0.804)	
CR	0.419**	0.218**	(0.692)

Note: \*\* correlations are significant at the 0.01 level (2-tailed).

Table 5. Predictors and consumer resilience: model summary.

Model Summary <sup>c</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.093 <sup>a</sup>	.009	.001	1.03219	.009	1.145	3	396	.331
2	.457 <sup>b</sup>	.209	.199	0.92421	.201	49.970	2	394	.000

<sup>a</sup> Predictors: (Constant), Education, Gender, Age.

<sup>b</sup> Predictors: (Constant), Education, Gender, Age, Consumer optimism, Consumer innovativeness.

<sup>c</sup> Dependent Variable: Consumer resilience.

Table 6. Predictors and consumer resilience: ANOVA.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.661	3	1.220	1.145	.331 <sup>b</sup>
	Residual	421.908	396	1.065		
	Total	425.569	399			
2	Regression	89.027	5	17.805	20.845	.000 <sup>c</sup>
	Residual	336.542	394	.854		
	Total	425.569	399			

<sup>a</sup> Dependent Variable: Consumer resilience.

<sup>b</sup> Predictors: (Constant), Education, Gender, Age.

<sup>c</sup> Predictors: (Constant), Education, Gender, Age, Consumer optimism, Consumer innovativeness.

The results show that consumer resilience significantly and negatively impacts online buying ( $\beta = -0.131, p < 0.050$ ).

In addition, a two-way ANOVA analysis was conducted for testing the potential differences in the effects of consumer optimism and innovativeness on consumer resilience for males and females. The insignificance of interaction effects indicates that there are no significant differences in the effects of consumer optimism and innovativeness on consumer resilience for males and females.

## 4 Discussion

### 4.1 Theoretical contributions

The main purpose of this research was to explore consumer resilience within the retail pandemic setting given the consumers' demographic and individual characteristics, that is, protective factors of optimism and innovativeness, and the impact of resilience on online buying. This was explored through the lens of Kumpfer's resilience framework that stresses the importance of environmental context, individual protective factors and outcome variables for resilience. The research findings show that Croatian consumers do not perceive Covid-19 as a huge threat, that is, they feel quite resilient and optimistic, and also innovative to a certain degree. Results show that gender (male) plays an important role for consumer resilience, thus, hypothesis H1 is supported. These results are in accordance with the previous findings (e.g. Ang et al., 2018; Hirani et al., 2016; Rodriguez-Llanes et al., 2013; Smokowski et al., 1999; Yu & Zhang, 2007), indicating that, unlike female, male individuals show a higher level of resilience. Since age and education seem to be insignificant for consumer resilience, hypotheses H2 and H3 are rejected. The reasons for insignificance

Table 7. Predictors and consumer resilience: coefficients.

Coefficients <sup>a</sup>											
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.913	.269		18.279	.000					
	Gender	.127	.114	.056	1.111	.267	.054	.056	.056	1.000	1.000
	Age	-.017	.043	-.020	-.394	.694	-.010	-.020	-.020	.984	1.016
	Education	.087	.059	.075	1.491	.137	.072	.075	.075	.984	1.017
2	(Constant)	1.981	.380		5.206	.000					
	Gender	.217	.103	.095	2.109	.036	.054	.106	.094	.991	1.009
	Age	-.002	.039	-.002	-.041	.968	-.010	-.002	-.002	.961	1.040
	Education	.092	.053	.080	1.757	.080	.072	.088	.079	.978	1.022
	Consumer optimism	.409	.047	.400	8.725	.000	.419	.402	.391	.954	1.048
Consumer innovativeness	.109	.036	.141	3.050	.002	.218	.152	.137	.934	1.071	

<sup>a</sup> Dependent Variable: Consumer resilience.

Table 8. Consumer resilience and outcome: model summary.

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig.	F Change
1	.131 <sup>a</sup>	.017	.015	.674	.017	6.983	1	398	.009	

<sup>a</sup> Predictors: (Constant), Consumer resilience.

<sup>b</sup> Dependent Variable: Online buying.

Table 9. Consumer resilience and outcome: ANOVA.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.177	1	3.177	6.983	.009 <sup>b</sup>
	Residual	181.063	398	.455		
	Total	184.240	399			

<sup>a</sup> Dependent Variable: Online buying.

<sup>b</sup> Predictors: (Constant), Consumer resilience.

of age and education for consumer resilience might be sought within the convenience sampling and thus unequal sample distribution. Therefore, additional exploration on the representative sample would be required in order to capture the potential significance of age and education variables for consumer resilience. The obtained results contribute to Kumpfer's resilience framework by adding the relevance of personal demographic factor for resilience within the new environmental (pandemic) context.

Given the protective factors, consumer optimism positively influences consumer resilience and thus hypothesis H4 is supported. This finding is aligned with the research results of Sumi (2014) arguing that optimism is vital for maintaining and restoring efficacious functioning and those of Synder and Lopez (2002) who argue that optimists can exhibit high level of resilience when facing difficult and enduring stressors. In addition, our result corroborates the notions of Arampatzi et al. (2020), whereby optimism represents a predictor of resilience that enables coping and adaptation to difficult events. It seems that optimism can reduce the feeling of

helplessness, thus enabling the feeling of taking back the control (being resilient), which is necessary for one's further actions, as suggested by Mills and Dombeck (2020). Our result also confirms that more resilient consumers are those who feel positive emotions, as claimed by Ball and Lamberton (2015), and that consumer optimism can be perceived as an important protective factor driving higher resilience, which adds novelty to the Kumpfer's resilience framework when it comes to the role of relevant protective factors and personal processes.

Furthermore, our study shows that consumer innovativeness is positively associated with the consumer resilience signaling that the higher the innovativeness, the higher the consumer resilience. Thus, hypothesis H5 is supported. The gained result can be explained in a sense that more innovative consumers are more open towards new experiences, new situations and changes, including challenges, such as pandemic and purchasing experience. Such explanation can also be seen in Triwijayati et al.'s (2020) study indicating that innovative individuals can be more open to new experiences and changes as a way of addressing a particular change. Furthermore, our result is in accordance with Raqshin and Nirjar's (2012) findings that an individual's capability to recover from a tough situation (being resilient) is dependent on one's capability to be innovative, and with Baskaran and Rajarathinam's (2017) and Robert's (2016) findings showing that innovative behavior is positively associated with resilience. Our finding suggests that consumer innovativeness can be seen as an important protective factor explaining the consumer resilience,

Table 10. Consumer resilience and outcome: coefficients.

Coefficients <sup>a</sup>											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error				Beta	Zero-order	Partial	Part	Tolerance
		1	(Constant)	2.075							
	Consumer resilience	-.086	.033	-.131	-2.643	.009	-.131	-.131	-.131	1.000	1.000

<sup>a</sup> Dependent Variable: Online buying.

thus providing the novelty to the utilized Kumpfer's resilience framework in terms of the protective factors and personal processes.

Lastly, our research results indicate that consumer resilience is negatively associated with online buying. Thus, hypothesis H6 is supported. This result suggests that when consumers are more resilient, they are less prone to adapting their behavior to online buying. This might also suggest that consumers are not greatly intimidated by Covid-19 and tend to buy in physical stores instead of switching to the online mode. On one side, this result is in contradiction with some existing findings suggesting that resilience might work for positive consumer's intentions (e.g. [Rew & Minor, 2018](#)) or reaching the empowerment through adaptation behavior ([Ford et al., 2019](#)). Our finding is also contrary to the one of [Voinea and Filip \(2011\)](#) suggesting that consumers might change their behavior when experiencing difficulty as a way of coping with an adversity. On the other side, our finding supports [Maddi's \(2012\)](#) notion that consumer resilience impacts one's actions and [Thakur's \(2018\)](#) insight that one's self-efficacy is a precondition for a particular behavioral process. More importantly, our finding corroborates [Kumpfer's \(2002\)](#) results that resilience can take either the way of positive reintegration/adaptation or maladaptive reintegration, i.e. negative/lower adaptation, which is the case with our study. Therefore, this result contributes to Kumpfer's resilience framework by addressing a novel outcome variable of online buying maladaptive behavior given the new environmental setting (pandemic). Considering the obtained results, the main contribution of our study is the enhancement of Kumpfer's resilience framework by adding the new environmental stressor (Covid-19) and explaining the resilience relationships with new protective factors of consumer optimism and innovativeness, as well as the new outcome online buying variable that turned out to be an example of maladaptive behavior.

#### 4.2 Managerial implications

Given the exploration of demographics and consumer resilience, the research indicates that male consumers are more resilient, suggesting also that females are more vulnerable. This result means that companies should be careful when advertising gender roles. Namely, when promoting their services, companies should provide reassuring messages especially towards female consumers in order to build their resilience. This suggestion can also be supported by recent [Unicef's \(2020\)](#) proposal

advising that due to the Covid-19 impacts, companies should strive for socially beneficial communications, while avoiding gender stereotypes. In order to do so, the emphasis should be put on including both genders and diverse personalities within the messages. Therefore, when advertising their products, retailers should depict the scenarios of both genders.

Considering the personalities and the obtained results, our study suggests that in order to build consumer resilience, the messages should appeal to optimism and innovativeness. Namely, it is necessary to communicate an optimistic approach as a path towards overcoming the challenge, while waiting to return to normal. This notion is corroborated by the [Financial Express \(2020\)](#) analysis claiming that global brand companies decided to use the optimism (positive thoughts, thank you notes, values of kindness, hope and generosity) as an appeal for staying connected with the consumers, while looking at the brighter side of life during the pandemic. A similar approach can be seen in an Adidas campaign that appeals to joy, optimism and resilience ([Stewart, 2020](#)), whereby Adidas communicates optimism as a necessity for handling the unknown future events, showing respect for every chance, while being 'ready for sport'. In terms of the established connection between the consumer innovativeness and resilience, marketers might appeal to consumer innovativeness by developing personalized messages. For instance, they can develop creative messages inviting consumers to explore the variety, to seek for new products and experiences while maintaining the control in tough circumstances. They can stimulate consumers to embrace the new normal and to be open, as a way of building their resilience. An example of a campaign that acknowledges the pandemic adversity while appealing to openness is Coca-Cola's campaign 'Open like never before', whereby it is suggested to be open to the various things in order to get back to normal, i.e. to be resilient. In addition, while appealing to optimism and innovativeness as a way of building consumer resilience, companies might consider adding humor appeals to their positive and creative ads, due to the fact that humor might better grab the consumers' attention while sharing the positive feelings. Therefore, given the adversity context, today the companies need to take an innovative and creative positive approach in their communication strategies even more than before.

Lastly, our study established a negative relationship between consumer resilience and online buying. This finding suggests several things to marketers. First, it shows that they might be doing a

good job in communicating the social distancing measures and safety of shopping in physical stores. Second, it suggests that marketers should continue stressing the importance of safety measures via ads, and on the spot through safety signs and labels. However, one of the suggestions still might be to start or continue shifting the consumers to online buying as an additional safety measure. Namely, although consumers might feel quite resilient given the Covid-19 threat, it might also mean that consumers are still not fully aware of the threat severity and benefits of online buying in fighting the pandemic. Therefore, the companies should stress the safety and easiness of online buying as their additional benefit and as an added value for resilient consumers as well, thus enhancing the overall consumer buying experience.

#### 4.3 Limitations and future research

This study is not without limitations. Namely, the used sampling method was the convenience sampling, which possibly resulted in age and education being insignificant. Thus, the future research could be based on a probability sampling method in order to get a representative sample considering demographic variables and also the income role that was not part of our study at this point. In addition, another limitation could be the inclusion of only two personal traits, i.e. protective factors, whereby some other individual characteristics might reveal additional information regarding the consumers given the pandemic context. Therefore, the future research might reflect on the psychological well-being of the individuals tackling the influences of fear and anxiety encompassing possible mediating and moderating effects. Future research could also include additional behavioral outcomes (e.g. buying intention, repurchase, recommendation, purchase satisfaction). In addition, cross-cultural comparisons might provide different insights into consumer resilience levels and threat coping mechanisms. Nonetheless, consumer resilience represents an interesting field of consumer behavior in general, but especially given the crisis situation, that deserves further scholars' attention.

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