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Consumer Financial Planning in the Post Covid-19 Era: The Role of Emotional and Economic Vulnerability

Abstract

The present research examines the relationship between emotional vulnerability, economic vulnerability, and intentions to improve financial planning for American households in the post Covid-19 era. Using a survey of 504 household financial decision makers, we show that the effects of psychological fears and concerns experienced during the pandemic (i.e., emotional vulnerability) on post-pandemic household financial planning intentions are mediated by their perceived economic vulnerability. Specifically, for those who experience higher levels of emotional vulnerability, economic vulnerabilities are perceived to be harsher, further motivating them to raise their financial preparedness. Moreover, we identify an individual factor, personality trait of conscientiousness, as a boundary condition affecting this relationship. Specifically, individuals who are more conscientious tend to be more willing to learn from harsh pandemic experiences and are more willing to adapt in the long run.

Keywords: Pandemic, Vulnerability, Household Decision Making, Financial Planning, Personality.

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Introduction

Prior research has provided evidence indicating that the Covid-19 pandemic is not just an epidemiological crisis, but rather a psychological and financial crisis that has threatened people's health as well as their financial and emotional wellbeing (Galoni, Carpenter, & Hayagreeva, 2020; Yazdanparast & Alhenawi, 2022). According to Campbell *et al.* (2020 a, b), the health and economic threats that accompanied the pandemic can severely disrupt consumers' sense of ontological security and elicit lasting adaptive responses in consumers.

The majority of extant research focusing on Covid-19 pandemic, though, has focused on the immediate reactions and responses of consumers to the pandemic (e.g., Stanciu *et al.*, 2020; Liu, Pan, & Yin, 2020), disregarding the need to study how lessons learned during the pandemic are likely to influence future intentions and behaviors. Moreover, consumer behavior researchers have mainly examined consumption decisions during the pandemic, such as food, green, and sustainable consumption decisions (Chenarides *et al.*, 2021; Lee & Kim, 2021; Schmitt *et al.*, 2021) and have not devoted much attention to financial decisions made by consumers that could impact their future, post-pandemic, consumption plans (for an exception, see Yazdanparast & Alhenawi, 2022).

Extant research has recognized that financial decisions are influenced not only by individuals' financial profile, but also by their personal characteristics (Lynch Jr, 2011; Yazdanparast & Alhenawi, 2017). Therefore, it is pertinent to examine how changes in consumers' financial behaviors are affected not only by their financial aptitude, but also by their perceptions of the severity of the Covid-19 pandemic and their sensitivity to adverse stimuli. Indeed, in extremely stressful situations, such as the prolonged Covid-19 pandemic, consumers'

reactions to crises can vary (Han, 2021; Han et al., 2021), making it necessary to examine individual differences.

Modern theories of consumer behavior suggest that individuals' reactions to threats or stressful situations differ in a systematic manner (Mowen, 2000), and that the heterogeneity in innate mental processes of consumers can guide their intentions and behaviors. As such, we draw on the Meta-Theoretic Model of Motivation (3M) theory (Mowen, 2000), suggesting that the systematic differences in individuals' endurance and reactions to adverse conditions can be explained by their personality traits. Personality traits interact with life circumstances and result in behavioral differences (Han et al., 2021). Thus, we argue that consumers' responses to the pandemic-induced vulnerabilities are moderated by their innate psychological characteristics (i.e., personality).

The present work focuses on post-pandemic behavioral intentions and explores the possibility that the emotional tensions and harsh economic conditions that households witnessed during the pandemic have caused them to re-think their financial planning. Accordingly, we aim to examine the effect of the acute psychological and economic tensions that accompanied the pandemic on transformative shifts in households' financial behaviors as implied by their financial planning intentions for the post-pandemic era.

Psychological reactance theory (Brehm, 1966) suggests that humans take defensive measures, including adaptive long-term behaviors, when they face severe psychological tensions. In line with this theory, we focus on tensions experienced during the pandemic and examine their effects on post-pandemic future intentions. More specifically, and following Baker, Gentry, and Rittenburg's (2005) definition of consumer vulnerability as a temporary situation where consumers lose control and make decisions influenced by unfavorable external factors, we

capture emotional vulnerability through pandemic-induced fears related to personal health, health of loved ones, professional life, social life, and death proximity. Further, we conceptualize economic vulnerability as an intense psychological experience rooted in economic fragility and financial distress and propose an index of economic vulnerability that captures fears of substantial loss of income, collapsing local economy, collapsing world economy, failure of governmental assistance programs, and overall financial distress. We measure propensity to take defensive financial planning measures in the post-pandemic era and employ standard tests of personality to gauge consumers' inner psychological motives while controlling for demographic factors that have been identified to influence consumer behavior and tendency to adopt sound financial planning practices.

Using data collected from household financial decision makers in the USA, our analyses provide evidence for the underlying role of economic vulnerability in affecting financial planning intentions. This indicates a learning behavior fueled by pandemic-induced emotional experiences and vulnerabilities. This view is consistent with Kirk and Rifkin (2020), arguing that people's reactions to a crisis goes through three phases: rejection, coping, and adapting. While prior research has documented evidence of denial and coping during the pandemic (Campbell *et al.*, 2020a, b; Laato *et al.*, 2020; Kirk, & Rifkin, 2020), our findings provide evidence of the third phase, adapting, and indicate that when consumers go through adverse conditions of a global pandemic and experience emotional and economic vulnerabilities, adaptive behaviors such as those reflected through intentions to be more vigilant with financial planning are expected. However, this effect varies based on individuals' personality characteristics. Specifically, the trait conscientiousness, which is related to being careful, diligent, and organized, is shown to be a boundary condition for the proposed effects. In the context of this paper, those who score

higher on conscientious are found to be more likely to learn the lesson of the crisis and are more inclined to improve their financial planning behavior in the post-pandemic era.

Literature Review and Hypothesis Development

Pandemic and Vulnerability

The financial crisis that accompanied the Covid-19 pandemic differs from previous financial crises such as the great recession in two important ways. First, unlike previous financial crises, it has been practically unpredictable without a clear trajectory or an end line (Alhenawi & Yazdanparast, 2021). Second, it is noteworthy that all elements of the economy are closely interrelated with public health measures and lockdown policies, resulting in economic instabilities that affect the market dynamics (Mehta et al., 2020). Thus, the Covid-19 financial crisis is one that has epidemiological and psychological crisis components as well (Galoni, Carpenter, & Hayagreeva, 2020). While other financial crises have had mental health consequences for some (Margerison-Zilko et al., 2016; Forbes & Krueger, 2019), the Covid-19 crisis has been synonymous with physical and psycho-social health threats for almost all individuals (as no prior financial crisis was experienced along with social distancing and extreme health protocols to prevent virus contraction). For these reasons, the Covid-19 pandemic-induced crisis should not be examined as a pure financial hardship with temporary consequences, and instead, it should be considered as one that has come with remarkable emotional tensions attributed to both financial and non-financial fears and concerns¹.

Extant research has also reported evidence that the pandemic has been associated with heightened experiences of stress and depression (Corbet *et al.*, 2010; Galoni *et al.*, 2020) and

¹ World Health Organization www.who.int. Accessed on Oct 08, 2021.

affected mental health and overall well-being of individuals (Kirk and Rifkin, 2020; Campbell *et al.*, 2020 a, b). These severe adverse psychological experiences are attributed to several fears and concerns related to health, life, shortage of supplies, compromised social interactions, inadequacy of government support, and mis-guiding news (Campbell and Murphy, 2020; Jacobs, Richtel, & Baker, 2020; Togoh, 2020).

As such, it would be a mistake to examine the financial reactions and responses of individuals to the Covid-19 crisis without considering their emotional resilience. While individuals' financial conditions govern their responses to financial adversities, the unique nature of the Covid-19 pandemic calls for the consideration of factors that have caused emotional distress as well. Therefore, we argue that examining individuals' financial responses to the pandemic must take into account the emotional tensions that govern their vulnerability.

Further, individuals' vulnerability experiences affect the way they perceive the financial adversities of the pandemic and consequently, impact their financial decisions and planning. The term consumer vulnerability is used to describe a state experienced by individuals when variety of difficult situations that consumers face. Individuals experience vulnerability when they lose control of their lives and are dependent on external factors (Baker, Gentry, & Rittenburg, 2005; Baker, LaBarge, & Baker, 2015). Vulnerability arises from the influence of individual states and characteristics and structural/environmental conditions within a context where consumption goals may be hindered (Baker, Hunt, & Rittenburg, 2007). So, vulnerability is reflected through a multitude of fears and concerns (i.e., personal, interpersonal, material, and non-material concerns). For example, victims of natural disasters are faced with fears about their own and their loved ones' safety, the unexpected loss of human lives, and the involuntary loss of

collective landmarks and personal possessions, all resulting in consumer vulnerability states. Following this line of reasoning, we focus on the experience of vulnerability.

Campbell *et al.*, (2020a, b) argue that the pandemic has not only impacted people's lives and altered their perceptions and views, but also it has wrecked the economy and households' finances. For instance, through two surveys in the United Kingdom and Sweden, Barraferm, Västfjäll, and Tinghög (2021) assessed how households perceive imminent economic threats while controlling for psychological factors and financial well-being, and Chatwani and Mishra (2021) reported that many Americans lost their financial optimism which resulted in increased financial fragility. As such, to examine the full effects of the pandemic, both emotional and economic vulnerability experiences need to be considered.

Emotional vulnerability takes pandemic-induced fears and concerns such as health-related concerns (pertaining to the individual and their loved ones), concerns related to individuals' professional and social life, as well as general concerns about death are relevant fears experienced by individuals during a pandemic into account. Economic vulnerability, on the other hand, is rooted in fears of adverse economic conditions and is concerned with perceived economic insecurities resulting from distressing financial conditions that make individuals powerless and helpless when confronting imminent financial threats (Bernheim *et al.*, 2003).

Prior research has provided evidence supporting the connection between emotional and economic tensions experienced by consumers during the pandemic. For instance, Galoni, *et al.* (2020) and Huang and Sengupta (2020) examined the emotional impact of the pandemic and reported that the threat of a contagious disease increases fear and disgust and leads to changes in consumer behavior. Li *et al.* (2020) reported that fears of losing employment or income exacerbate the severity of liquidity constraints during the pandemic. Similarly, Yue *et al.* (2020)

showed that having a relative or a friend who is infected with Covid-19 increases the tendency to lose confidence in the economy and increases consumer's likelihood of becoming risk-averse. In other words, when individuals are overwhelmed due to the experienced emotional vulnerabilities, they are more afraid of the economic and financial stressors and experience more economic vulnerabilities. Therefore, It is hypothesized:

H1: Emotional vulnerability increases the economic vulnerability experienced by consumers.

Pandemic and Consumer Behavior

Kirk and Rifkin (2020) demonstrate that people's reaction to surging unfavorable conditions can be classified into three phases: rejection, coping, and adaptation. When individuals encounter a crisis, they first attempt to downplay its impact (rejection) before they start adjusting their behavior in the short run (coping) and eventually in the long run (adaptation). The more intense the experience, the longer and the more drastic the reactions (Cameron and Shah, 2015). In extreme cases, intense emotional experiences may provoke permanent, or at least long-lasting, attitudinal and behavioral reactions (Brehm, 1966).

Extant Covid-19 research has mainly examined consumer behavior patterns during the pandemic (i.e., rejection and coping reactions) with little attention to the post-pandemic intentions (i.e., adapting reactions). For instance, the U.S. state governments' first implementation of stay-at-home orders received negative reactions from many consumers who seemed to go out of their way to ignore the orders. The beaches and other public areas remained packed with revelers. Rejection behaviors, disbelief in the existence of Covid-19, and denials have also been reported in other countries such as Greece (Vasilopoulos *et al.*, 2022), Germany

(Rothmund *et al.*, 2022), the UK, and Brazil (Falkenbach & Greer, 2021). Coping behaviors (e.g., accepting what is happening, collaborating with quarantine social activities, highlighting the advantages of being at home; Fullana *et al.*, 2020) have also received ample attention from researchers and have been found to help protect against anxiety and depressive symptoms during the Covid-19 pandemic and lockdown (Mariani *et al.* (2020).

Long term effects of the pandemic on consumers' behavioral intentions (i.e. adapting reactions), though, have received less attention, while it has been argued that the effects of the pandemic on consumers are expected to be lasting and long term (Campbell *et al.*, 2020 a, b). This argument is in line with psychological reactance theory (Brehm, 1966), arguing that when individuals' freedom to control their lives is threatened, they experience psychological reactance, a motivational force to react with defensive behavioral and attitudinal changes to gain control of their lives back that typically provokes long-lasting behavioral mechanisms (Rosenberg & Siegel, 2018).

The Covid-19 experienced vulnerabilities are severe tensions that could provoke psychological reactance and result in behavioral changes as well (Cameron & Shah, 2015). As such, we posit that behavioral changes in response to Covid-19 economic vulnerabilities should focus on actions to gain more control of one's finances and lower the likelihood of experiencing financial hardship in the future. This is in line with O'Neill and Xiao's (2012) findings that the 2008-2010 economic crisis provided an impetus in individuals to make positive financial behavior changes. An important approach to achieve such goals is through financial planning or methods of preparing for future household financial needs in an efficient manner (Altfest, 2004). In line with this reasoning, we argue that the economic vulnerabilities experienced by individuals have increased awareness about the importance of financial preparedness, alerted individuals to

plan for the worst, and increased their financial planning intentions. Therefore, it is hypothesized:

H2: Economic vulnerability experiences increase financial planning intentions.

As discussed earlier, higher emotional vulnerabilities result in heightened economic vulnerability experiences, which in turn, enhance intentions for financial planning. Therefore, we test the following hypothesis:

H3: Economic vulnerability mediates the effect of emotional vulnerability on financial planning intentions.

The degree of change in behavioral intentions, though, varies among consumers. Individual characteristics play a vital role in such differences. The next section focuses on personality traits, one of the most important individual factors that influence individuals' inclinations and proclivity (Mowen, 2000).

Personality and Consumer Behavior

Personality traits are the dynamic psychological systems that govern a person's characteristic, behavior, thoughts, and feelings (Lin, 2010). Personality traits vary across individuals and are considered highly stable over the course of adulthood (McCrae, 1993). According to the Meta-theoretic Model of Motivation and personality (i.e., the 3M model; Mowen, 2000), personality traits interact with situations and influence consumers' attitudes and actions. The model incorporates a hierarchical theory of personality and stipulates that personality traits are at one of four levels (i.e., elemental, compound, situational, and surface). Elemental traits are the focus of the present study due to their fundamental nature in individual differences (Mowen & Carlson, 2003). At the elemental level, the 3M model contains five traits from the big five personality

model (i.e., openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism) and three additional traits, need for material resources, need for arousal, and body resource needs (Mowen *et al.*, 2007). Personality traits are generally considered as moderators in research models, because they can explain the variance in performance, are stable over time, and generalize across groups and settings (Mowen & Carlson, 2003).

Indeed, perceived financial threats can be worsened not just by socioeconomic characteristics and acute and chronic financial hardships but also by conceptually relevant personality traits (Greenglass and Mara 2012; Fiksenbaum *et al.*, 2017). For instance, Mann *et al.* (2020), found that in the context of the Covid-19 pandemic, neuroticism makes people more prone to financial distress. Moreover, Adamus and Grezo (2021) reported evidence that greater neuroticism and uncertainty avoidance are positively related to aggravated perception of financial threats. These findings provide evidence for the role of specific personality traits in affecting perceptions of financial hardship. While valuable, the link from perceived financial threats (i.e., economic vulnerability) to adaptive behavioral responses and future planning has not been examined.

McCrae and Costa (1999) consider long-term planning to be one of the features of individuals that are high in conscientiousness. Those who are high in conscientiousness are more reliable, have more self-discipline, and have stronger work ethic (McCrae and Costa, 1987). Empirical work also suggests that conscientiousness is associated with future planning (Prenda & Lachman, 2001). Personality research suggests that a preference for future planning—the tendency to plan for the future—is a key indicator of the trait of conscientiousness (Shaffer, 2020). Relatedly, Zimbardo and Boyd (1999) proposed that individuals could have various time perspectives that differ by their focus on the past, present, or future, and found that

conscientiousness is most closely associated with a future time perspective. As such, we expect that this personality trait to moderate the relationship between economic vulnerability and financial planning intentions. More specifically, for individuals scoring higher on conscientiousness, the relationship between emotional and economic vulnerability is expected to result in intentions for being more financially responsive. However, for those low in conscientiousness, such effects are not expected. We test:

H4: The effect of emotional vulnerability on financial planning intentions through economic vulnerability is moderated by conscientiousness.

Figure 1 illustrates the conceptual model of the study and the proposed hypotheses.

Insert Figure 1 about here

Method

Data Collection and Procedure

Data were collected using an online survey deployed through Prolific. In line with prior household finance research (e.g., Campbell, 2006; Alhenawi & Elkhal, 2013), participation in the survey was restricted to permanent residents or citizens of the United States of America who were at least 18 years old and were considered as one of the primary financial decision makers for their household.

The questionnaire was designed in congruence with the research model and the variables of interest. Where possible, the constructs were measured using previously validated scales (See Appendix A for more details). In line with the definition of vulnerability (Baker, Gentry, & Rittenburg, 2005), emotional vulnerability was captured through five statements (measured via

7-point Likert items where 7 = strongly agree and 1 = strongly disagree, $\alpha = .8$) focusing on individuals' non-financial fears and concerns related to the impact of Covid-19 on their personal health, the health of their loved ones, their professional life, their social life, and their feeling of closeness of death. Economic vulnerability index was constructed to capture individuals' financial insecurities and fears. We drew on Bernheim et al.'s (2003) definition of financial vulnerability (i.e., imminent loss of income), Baker et al. (2007) argument connecting powerlessness and lack of control to vulnerability, and Guarcello *et al.* (2010) and Hahm *et al.* (2013) indicating that financial vulnerability is a function of individuals' financial conditions as well as their perceptions of the economic conditions around them. As in Cicirelli (2002), we asked questions aimed at capturing participants' fears, but we focused on fears related to the financial adversities instigated by the pandemic. Participants were asked to respond to five questions focusing on fears of losing household/family income, experiencing severe financial distress, the collapse of the world economy, the collapse of the national economy, and lack of governmental measures to assist individuals. For each question, participants earned one point for choosing the first option which corresponded to the most pessimistic view or the highest sense of insecurity, while they earned 0.5 point for choosing the second option, which describes modest views and average concerns. The third option received no point, as it indicated a rather optimistic view and very little fear. Thus, the economic vulnerability index takes values between zero and five, where 5 indicates an extremely high sense of vulnerability, and zero indicates optimistic views and almost no economic fear.

Financial planning refers to a set of practices that aim at securing future financial needs in an efficient manner (Altfest, 2004). Consistent with this definition, we measured post-pandemic intentions for financial planning through four items (using 7-point Likert scale where 7

= strongly agree and 1 = strongly disagree; $\alpha = .71$) that captured intentions to maintain a budget, take finances more seriously, worry about finances, and make changes in how the finances are managed after the pandemic. The construct was coded so that higher values indicate higher intentions to make a change (i.e., lower intentions to have a financial plan). The items were adapted from Parrotta Johnson's (1998) financial attitudes scale focusing on attitude toward financial planning.

Finally, conscientiousness was measured using items borrowed from Licata, Mowen, Harris, and Brown (2003) which were first developed by Mowen (2000). Respondents were presented with short phrases (i.e., efficient, organized, orderly, and precise) and asked "how often do you feel/act this way" (responses were taken on 7-point scales anchored by 1 = never to 7 = always; $\alpha = .89$ for all traits). Financial knowledge (using a tool adopted from Knoll & Houts, 2012) as well as demographic characteristics (i.e., age, gender, and household size) were captured to serve as potential control variables. We also included an attention check question, and those who failed to provide correct answers to the question were removed, resulting in a final sample of 504.

Common Method Bias Assessment

We followed Podsakoff *et al.*'s (2003) recommendations to address common method bias. We distanced measures of independent and dependent variables in the survey by incorporating other instrument materials. For instance, measures of vulnerability (emotional and economic) and financial planning intentions were placed in two different sections of the questionnaire. Moreover, as discussed earlier, measurement items were mainly borrowed from previously validated scales and carefully adapted and improved to fit the specific context of the study. Also,

we assured respondent anonymity and confidentiality and did not ask personally identifying questions. Finally, we conducted a post-hoc evaluation of common method bias before hypotheses testing. Harman's one-factor (or single-factor) test was performed by loading all metric variables in the study into an exploratory factor analysis (EFA) and conducting an unrotated factor solution. EFA generated four factors, explaining 71% of variance and rejected the prospect that one single or general factor responsible for the majority of covariance among the measures (Podsakoff *et al.*, 2003). It is noteworthy that the forced one-factor EFA explained only 20% of variance, indicating that common method bias was not present.

Data Analysis and Results

Descriptive statistics

The sample consisted of 504 participants who were American citizens or permanent residents responsible for making financial decisions for their households (Mean_{age} = 31.47, SD = 12.59; 42.5% female; Mean_{household size} = 2.92 people). Table 1 provides a summary of descriptive statistics for the sample. Participants reported moderate financial knowledge (Mean = 2.49 on a scale of 1 to 5) and economic vulnerability (Mean = 2.92 on a scale of 1 to 5) and relatively high emotional vulnerability (Mean = 4.95 on a scale of 1 to 7). Table 1 provides a summary of descriptive statistics for the sample.

Insert Table 1 About Here

Test of hypotheses

In order to test the hypotheses, we followed the recommended approach for mediation analysis

by Hayes and Preacher (2013). We employed PROCESS macro Model 4, a regression-based approach for analyzing mediation, with 2,000 bootstrapped samples and 95% confidence intervals (CIs) to test the mediating role of economic vulnerability in the relationship between emotional vulnerability and financial planning intentions. We controlled for age, gender, financial knowledge, and household size, but they were not significant ($p > .1$) and were dropped from the analyses.

The results indicated that emotional vulnerability significantly and positively influenced economic vulnerability (b coefficient = .15, Standard Error = .03, $t = 4.96$, $p < .001$; 95% CI: .09 to .21), as the confidence interval did not contain a zero. This result supports H1. Moreover, economic vulnerability significantly and positively influenced financial planning intentions (b coefficient = .36, Standard Error = .06, $t = 5.94$, $p < .001$; 95% CI: .24 to .48), supporting H2. Further, there was a significant indirect effect of economic vulnerability in the relationships between emotional vulnerability and financial planning intentions (b coefficient = .05; Standard Error = .01; 95% CI: .03 to .08), supporting H3.

H4 proposed that conscientiousness moderates the mediation relationship between economic vulnerability, emotional vulnerability, and financial planning. We tested for the moderated mediation relationship with emotional vulnerability as the independent variable, economic vulnerability as the mediator, financial planning intentions as the dependent variable, and conscientiousness as the moderator. We employed 2,000 bootstrapped samples and 95% confidence intervals using PROCESS Model 14 (Hayes, 2017). This model tests the moderated mediation relationship when the moderator affects the path from the mediator to the dependent variable (as depicted in Figure 1).

The results supported H4, showing a significant moderated mediation effect for

conscientiousness, as the index of moderated mediation is significant (b coefficient = .02, Standard Error = .07; 95%CI: .01 to -.03). Specifically, the interaction of economic vulnerability and conscientiousness on financial planning was significant (b coefficient = .13, $t = 3.07$, $p < .05$; 95%CI: .05 to .21). Further, the indirect effect of consumer vulnerability on financial planning through economic vulnerability was significant for individuals high on conscientiousness (b coefficient = .06, Standard Error = .01, 95%CI: .03 to .09) but not for those with lower conscientiousness (b coefficient = .01, Standard Error = .01, 95% CI: -.01 to .04). Table 2 provides summary results.

Insert Table 2 About Here

Discussion and Conclusion

The COVID-19 pandemic has affected lives of people around the world in unprecedented ways. As the pandemic begins to abate, societies transition into the next normal (Sneader & Singhal, 2020). While many crisis-related changes may be transitory, some may persist in the post-crisis era. The effects of the pandemic have been studied by researchers in different disciplines (e.g., supply chain management, economics, e-commerce, psychology, and medicine). Consumer behavior research has mainly focused on the immediate psychological and emotional impacts of the pandemic on individuals and their behavior, specifically, coping behaviors related to consumption decisions (e.g., Campbell *et al.*, 2020a, b; Laato *et al.*, 2020; Huang & Sengupta, 2020; Galoni, Carpenter, & Rao 2020).

As opposed to the majority of research on Covid-19 pandemic, the present research focuses on consumer responses beyond the immediate coping reactions to the pandemic and examines adapting strategies of American consumers as manifested by their financial planning

intentions. The results support the proposed hypotheses and indicate that emotional vulnerability positively affects economic vulnerability, which in turn, positively affects intentions to improve financial planning practices in the post-pandemic era (i.e., to make changes in one's finances). However, only when conscientiousness is high, such effects result in higher intentions to plan for one's finances (we tested other personality traits and found that they were not significant moderators).

Moreover, the present research is the first to differentiate between two distinct but interconnected types of vulnerability, emotional and economic vulnerability, in order to examine their role in affecting individuals' financial decisions and provides evidence for the role of emotional vulnerability (raised from psychological fears and concerns elicited due to the pandemic) in heightened economic vulnerability (i.e., financial fears and concerns elicited due to the pandemic), and the consequent effect on plans for being more vigilant with household financial matters.

Our approach uniquely links psychological reactance theory, consumer vulnerability, and personality research and contributes to the growing body of research in households' financial behavior in the context of Covid-19 pandemic. Household finance is an emerging field of research that examines the role of individual conditions in addition to household's financial profile in affecting household decisions (e.g., Yazdanparast & Alhenawi, 2017; Zhao, 2020; Xu *et al.*, 2017). We identify the underlying mechanism that links households' financial planning to the concept of vulnerability.

The results extend the domains of psychological reactance theory to a global pandemic by examining its role in instigating households' financial intentions and focusing on the role of emotional and economic vulnerability as important factors associated with reactance. Moreover,

the research focuses on outcomes of reactance beyond anger, negative cognitions, and boomerang effects (Shah, Friedman, & Kruglanski, 2002) and focuses on important behavioral intentions regarding financial planning.

Further, the present research contributes to personality research and focuses on conscientiousness, a conceptually relevant personality trait with the potential to influence future planning. The moderating role of conscientiousness adds to our understanding of the vulnerability dynamics of the Covid-19 pandemic and indicates that the fears and concerns elicited due to the pandemic result in stronger intentions to improve financial planning for those who score higher on conscientiousness. This is noteworthy given the fact that the majority of research has largely focused on purchase-related decisions and ignored important household financial decisions.

Implications

Tackling and reducing the factors that increase vulnerability to financial hardship experiences in individuals and communities are crucial (Frankham, Richardson, & Maguire, 2020). Our results indicate that such experiences are harsher among those who suffered stronger emotional vulnerabilities and contributes to our understanding of who may be at greater risk of experiencing economic stress. Such an understanding helps with timely and effective financial interventions (e.g., financial planning assistance) that alleviate these stressors.

The implications of the findings for financial service providers and marketers are noteworthy as well. The results indicate that once the pandemic is over, households will be more vigilant about their finances, at least for a while. Moreover, the present research reveals that the intended post-pandemic financial adjustments among individuals are expected to vary with a few

factors. This should help managers and marketers of financial services in designing customized products and services. These service-providers need to be cognizant of the severity of the emotional and economic vulnerability experiences of their clients and be aware that economic vulnerabilities are perceived to be stronger for those who have undergone more intense emotional vulnerabilities. As such, soliciting information regarding the emotional fears and experiences of clients (through an assessment tool similar to the one developed in the present research) is highly recommended. Moreover, individuals with different psychological profiles perceive the pandemic-induced financial adversities differently and consequently are likely to react differently. As such, taking clients' level of conscientiousness into consideration could inform how much persuasion and reasoning would be necessary to encourage healthier financial planning practices.

Further, since financial planning implies making changes in household finances, establishing a budget for various expenses, and increased vigilance, it is expected to affect important financial decisions (i.e., saving, investing, and spending). As such, marketers should take these changes into consideration when positioning products and services and highlight how expenses towards their marketed products and services could contribute to households' financial goals.

Households make constant adaptive changes in their finances in response to shifts in the economic conditions. According to some economists, the world is on the verge of entering a recession for which the pandemic is a major contributor (see for example, Auerbach, Gorodnichenko, McCrory, & Murphy, 2022; Campos-Vazquez, et al., 2023). Given the focus of the present research on financial planning, the findings are timely and relevant, as they shed light on how consumers' financial behaviors are likely to be affected in the aftermath of the Covid-19

pandemic. For instance, households tend to spend less and divert investment to safer assets during recessionary economic conditions (Albert et al., 2023; Alhenawi, Elkhal, & Li, 2022). Our research adds to this classical notion and suggests that emotional vulnerability and economic vulnerability, as well as individual personality traits are important factors that should be taken into consideration.

Limitations and Future Research

The results of the present research, however, need to be considered in light of its limitations. The results are based on data collected from American consumers only, lowering the generalizability of the results. Future research is encouraged to examine other countries and compare the results with those of the present research. Further, researchers are encouraged to examine the role of other individual factors (e.g., fearfulness and past versus future orientation) in affecting vulnerability and change in household decisions. Goal orientation should also be examined in relation with the vulnerability experiences of individuals to assess whether or not individuals with a promotion versus prevention orientation are motivated to pursue a more financially aware approach (vs. make no change in their finances) in the post-pandemic era. Goal orientation is a process by which individuals seek to align their behavior with relevant goals and standards (Higgins, 1997) which is likely to influence consumer preferences for change by affecting their sensitivity to gains and losses as well as by influencing their reactions to anticipated regret (Chernev, 2004). As such, individuals' goal orientation could interact with emotional and economic vulnerabilities experienced by consumers and affect their financial planning intentions.

Finally, our data were collected during the pandemic. Thus, it would be worthwhile to re-examine the findings of the research with a longitudinal approach and re-explore households'

financial planning once the pandemic is officially over. Such follow-up studies are warranted given the fact that the present research focused on behavioral intentions (i.e., expectations to behave in a particular way in the future) and not the actual behaviors. It is noteworthy, though, that the early insights gained from the present research are instrumental for making proper planning and preparations for the post-pandemic era.

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Figure 1: Conceptual model: Moderated mediation effect of conscientiousness on the indirect effect of emotional vulnerability on financial planning intentions through economic vulnerability.

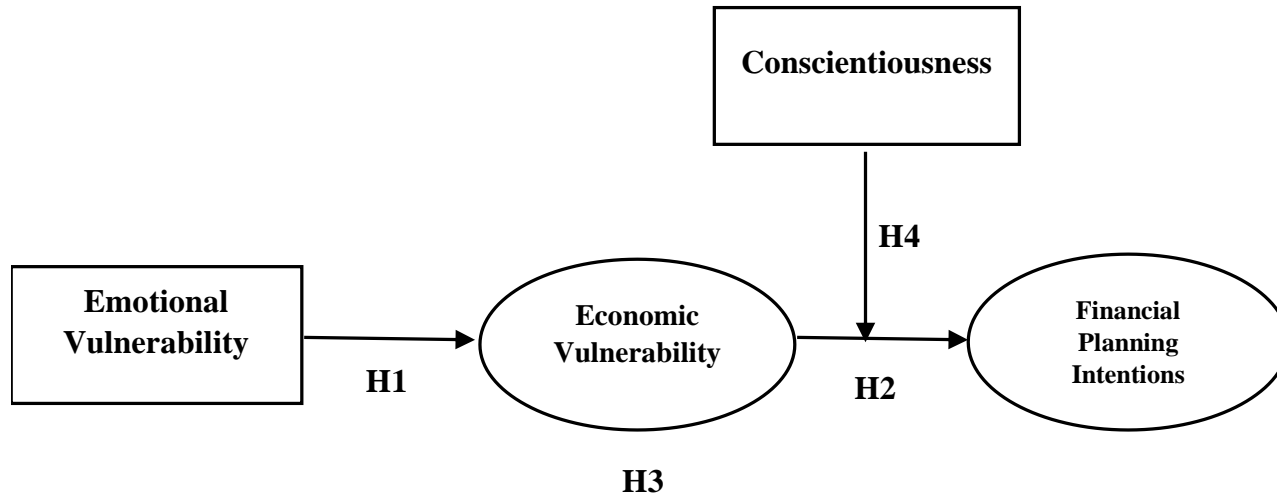


Table 1: Descriptive Statistics

	Financial Planning	Financial Knowledge	Trait Conscientiousness	Economic Vulnerability	Emotional vulnerability	Age	Household Size
Max	7.00	5.00	7.00	5.00	7.00	76.00	6.00
Min	1.00	0.00	1.00	1.00	1.00	18.00	1.00
Median	3.50	2.00	5.00	3.00	4.60	28.00	3.00
Average	3.52	2.49	4.95	2.92	4.39	31.47	2.92
Std. Div.	1.25	1.37	1.22	0.90	1.32	12.59	1.42

Table 2: Summary of Results

Path	b	SE	95% LLCI	95% ULCI	Supported Hypothesis
Mediation:					
<i>Emotional vulnerability to economic vulnerability</i>	.15	.03	.09	.21	H1
<i>Economic vulnerability to financial planning intentions</i>	.36	.06	.24	.48	H2
<i>Emotional vulnerability to financial planning through economic vulnerability</i>	.05	.01	.03	.08	H3
Moderated Mediation:					
<i>Emotional vulnerability to financial planning through economic vulnerability for consumers high in conscientiousness</i>	.06	.01	.03	.09	H4
<i>Emotional vulnerability to financial planning through economic vulnerability for consumer low in conscientiousness</i>	.01	.01	-.01	.04	H4

Note: b: coefficient; SE: standard error; LLCI: lower level confidence interval; ULCI: upper level confidence interval.

Appendix A - Measurement Items

Construct	Measurement Items	Reference
Emotional Vulnerability	<ul style="list-style-type: none"> • I am afraid of the impact of Covid-19 on my personal health. • I am afraid of the impact of Covid-19 on my loved ones' health. • I am afraid of the impact of Covid-19 on my professional life. • I am afraid of the impact of Covid-19 on my social life. • I have felt that death is closer to me than ever before due to the COVID-19 pandemic. 	Baker, Gentry, & Rittenburg (2005) and Cicirelli, 2002.
Economic Vulnerability Index	<ul style="list-style-type: none"> • Which one of the following statements best describes you? <ul style="list-style-type: none"> ▪ Because of COVID-19, I will lose all or a significant part of my household or family income. ▪ Because of COVID-19, I will lose less than half of my household or family income. I will survive but my lifestyle will be worse. ▪ Because of COVID-19, I will lose little or none of my household or family income. • Which one of the following statements best describes you? <ul style="list-style-type: none"> ▪ After COVID-19, the world economy will collapse. It will be a disaster that lasts for long years. ▪ After COVID-19, the world economy will be in recession for 1–2 years. It will recover afterward. ▪ After COVID-19, the world economy will slow down for a short period of time. Then it will be a fast recovery. • Which one of the following statements best describes you? <ul style="list-style-type: none"> ▪ After COVID-19, the economy of my country will collapse. It will be a disaster that lasts for long years. ▪ After COVID-19, the economy of my country will be in recession for 1–2 years. It will recover afterward. ▪ After COVID-19, the economy of my country will slow down for a short period of time. Then it will be a fast recovery. • Which one of the following statements best describes you? <ul style="list-style-type: none"> ▪ I believe that government will not take any measure to assist people. ▪ I believe that government will take a few measures to assist people. Not enough, though. ▪ I believe that government will take adequate measures to assist everyone. 	Bernheim et al. (2003), Guarcello et al. (2010), Hahm et al. (2013), and Cicirelli (2002).

	<ul style="list-style-type: none"> • Which one of the following statements best describes you? <ul style="list-style-type: none"> ▪ I and my family will be in severe financial distress. I am extremely concerned. ▪ I and my family will have some financial difficulties. But we will be fine. ▪ I and my family will be just fine. 	
Financial Planning Intentions	<ul style="list-style-type: none"> • After COVID-19, I will maintain a budget for my expenses. • After COVID-19, I will take my finances more seriously. • After COVID-19, I will worry more about my finances. • After COVID-19, I will change how I manage my finances. 	Parrotta & Johnson (1998) and Alhenawi & Elkhal (2013).
Conscientiousness	How often do you feel/act this way? (1 = never; 7 = always) - Efficient – Organized – Orderly – Precise	Licata et al., 2003.