



Personality, Risk Tolerance, and Religiosity on
Consumer Credit Card Use: Implications for
Sustainability and Social Impact: a Structured
Abstract

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INTRODUCTION

Advances in technology, convenience, and personality are changing the consumer's lifestyle. In addition, there are changes in consumer lifestyles and purchasing behaviors (Fastoso et al. 2012). These changes are shifting consumer buying behaviors to a variety of credit purchasing methods, including credit cards (Ramya and Mohamed Ali 2016). In the past, credit purchases were available only to some consumers at few locations, but nowadays, many consumers use credit purchases through various credit purchase methods. Credit cards have a significant impact on consumer credit (Basnet and Donou-Adonsou 2016) but also why consumers use their credit cards. According to the Federal Reserve System (2018), credit card usage more than doubled from about \$20 billion in 2008 to about \$40 billion in 2017.

Previous studies on credit cards have focused on the financial reasons why (or why not) consumers use credit cards (e.g., Limbu and Sato 2019). However, with the proliferation of credit card use, as individual consumers use various cards, and the focus on social impact for this conference, this preliminary research study focuses on how personality, risk tolerance, and religion impact consumer credit card usage, with eventual implications and future research opportunities in social impact and sustainability. Therefore, while most previous research looked at credit card usage itself, mainly from a financial perspective, our study asks *how does personality, risk tolerance, and religion impact credit card use, and how does this usage have implications for social impact and sustainability?* Our study analyzes consumers with credit cards to find out factors affect their credit card usage and how these factors can influence their future buying behaviors. Based on this, we use this study to propose implications and future research opportunities because of increased consumer credit card usage (Hira 2012). This study suggests a direction for future value-driven consumer research related to consumers' credit card usage influencing sustainable mindfulness and social impact.

BACKGROUND

In this study, a dual processing model is used to explain consumer behavior with credit card usage (Cline and Kellaris 2007). According to the systematic heuristic model, different types of information are processed differently depending on the cognitive strategy the consumer adopts (O'Keefe 2008). When a systematic strategy is chosen, the message recipient identifies the message and elaborates the information that the product or service has in the process (Pelletier and Sharp 2008). When a heuristic strategy is chosen, the decision is made by a simple judgment that is facilitated typically by certain diagnostic clues or highly accessible message or contextual cues (Lewis and Neighbors 2015). If so, which of these two processes will be affected by the use of credit cards? This personality also affects consumer behavior (Borzooei and Asgari 2013), which can further influence the consumer's thinking and behavior about the sustainable environment (Elkington 1994). The existing dual processing model explains the behavior of consumers according to whether consumers activate their cognitive system or their emotional system (Samson and Voyer 2012). Existing studies have described the emotional system as impulsive, unconscious, and material (e.g., Moore and Lee 2012). Conversely, cognitive systems

are described as being controlled, rational, and conscious (Evans 2008). Further research has linked the dual process with conservatism or liberalism attitudes (e.g., Yilmaz and Saribay 2016). Because of these attitudes, conservatism is significantly related to the cognitive system, while liberalism is associated with the emotional system. In our study, we examine the impact on consumer credit card usage by dividing individual personality into conservatism and liberalism.

H1: Liberal consumers tend to use more credit cards than conservative consumers do.

The dual processing model may be useful in understanding consumer attitudes and behaviors, but researchers differ in the content and composition of the model (Stone 2011). It is also not to be overlooked that external factors may control the impact of personality on financial behavior (Perry and Morris 2005). In other words, conservatism and liberalism described above have an inverse relationship with each other (Porter 2012). Consumers who rely heavily on cognitive systems have a conservatism attitude to consumer financial decisions. In contrast, consumers who are highly dependent on the emotional system have a liberalism attitude to consumer financial decisions (Thomsson and Vostroknutov 2017). These differences can change due to external influences. The effect of the system on an individual's financial decision can be controlled by the amount of risk that an individual can accept in the financial situation (Lucarelli and Brighetti 2010). For example, consumers who have conservatism attitudes with high financial risk tolerance may have more liberalism attitudes than traditional conservatism attitudes. Conversely, consumers who have liberalism attitudes with low financial risk tolerance will have less liberalism attitudes than the traditional liberalism attitudes.

H2: Conservative (liberal) consumers with high (low) risk tolerance show more credit card usage than those with low (high) risk tolerance.

Recent consumer and finance research has focused on the impact of sustainable mindfulness (e.g., Stone 2011). However, many researchers explain various concepts about mindfulness. Relating to these systems, Kidwell, Farmer, and Hardesty (2013) developed a model of how the congruence of political ideology and persuasive appeals enhanced sustainable behaviors. Additionally, more liberal consumers are more likely to engage in prosocial, sustainable behaviors than conservative consumers are (Gilg, Barr, and Ford 2005). This mindfulness requires action and practice to find inner values (Kasser 2009), and in this case, about sustainable values toward sustainable consumption (Peloza, White, and Shang 2013). That is, consumers can increase their mindfulness by performing internal value search. Finally, existing research has emphasized the importance of religion for these intrinsic values (Park, and Zehra 2018) and behaviors (Minton, Kahle, and Kim 2015). Religious consumers will pay more attention to intrinsic value. Therefore, we propose the following hypothesis.

H3: The interactions of is personality (conservative vs. liberalism) and risk tolerance (risk-taking vs. risk aversion) is moderated by religion status (high vs. low), leading to of credit card usage.

METHODOLOGY

To test three hypotheses, this study consisted of three research analyzes. First, we test a 3-way ANOVA with 2 (rational personality vs. emotional personality) X 3 (risk aversion vs. control vs.

risk taker) X 2 (have religion vs. do not have religion). The data is from the 2010 National Longitudinal Survey of Youth 1997 (NLSY97). It was collected from a nationally representative 8,984 people born between 1980 and 1984. At the time of the first interview, respondents' ages ranged from 12 to 18. The NLSY97 includes information on U.S. young consumers' financial, demographic, and attitudinal characteristics as well as various socio-economic conditions, making it convenient to explore the relationships between financial behavior and psychology variables. We use a sub-sample of 1,396 respondents who answered the credit card and personality questions.

RESULTS

Based on our results, we found that there are three significant main effects. First, our ANOVA model indicates a near to statistical significance effect of personality [$F(1, 1384)=3.647$, $p=0.056$]. Our results also show significant effect of risk tolerance [$F(2, 1384)=6.141$, $p<0.01$] and religion [$F(1, 1384)=14.565$, $p<0.01$]. Based on this result, hypothesis 1 is supported. Second, we conclude that there is a nearly acceptable level of significance of personality risk tolerance interaction [$F(2, 1184)=2.697$, $P=0.068$], indicating that conservative consumers with high risk tolerance tend to use their credit cards more than conservative consumers with low risk tolerance. However, we did not find high statistical significance among those credit card users of liberalism consumers. Therefore, the second hypothesis partially supported. Third, the last hypothesis in our study is the most important. According to our results, there was statistically significant three-way interaction between personality, risk tolerance, and religion [$F(2, 13840)=5.321$, $P<0.01$]. The presence or absence of religion has a moderating effect on the interaction effect of personality and financial risk tolerance. To be more specific, the presence of religion has the effect of controlling the impact of personality and risk tolerance on consumer credit card usage, which in turn, can influence the mindfulness of prosocial, sustainable mindfulness and consumption behaviors.

DISCUSSION

From what we have tested in our study, credit card usage is based on just more than convenience. Understanding why some consumers use credit cards more than others can have important implications from an economic standpoint (e.g., Limbu and Sato 2019) but, we propose, from a social impact and sustainability standpoint as well. From our model, we found that consumers' credit card usage is influenced by their risk tolerance, religiosity, and personality. Marketers are trying to persuade consumers to be more socially responsible and sustainable (e.g., White, Habib, and Hardisty 2019). In our study, we found that liberal consumers, compared to conservative consumers, tend to use their credit cards more. Building on that finding, we found that conservative consumers with high-risk tolerance use credit cards more those with low risk tolerance; however, the same cannot be said about liberal consumers. Finally, we found that religion has influence on credit card usage. Specifically, religion moderated personality and risk tolerance. We found that highly religious consumers, who are risk takers, would use their credit cards more than less religious consumers, who are risk adverse. We ask, what does this mean for social impact, sustainability, and future implications? These areas have many implications for social impact and sustainability, which can lead into future research opportunities for consumer

behavior researchers examining religion, social responsibility, and sustainability, among other impactful areas.

Mentioned earlier, Kidwell, Farmer, and Hardesty (2013) found that conservative vs. liberal appeals can influence consumers' sustainability behaviors. In addition, liberal consumers are more likely to engage in prosocial, sustainable behaviors than conservative consumers are (Gilg, Barr, and Ford 2005). This shows that this personality trait has high impact on sustainability initiatives that marketers implement. Therefore, in terms of credit card usage, consumers who are more liberal will be more engaged to use their credit cards for consumer purchases (hypothesis 1). Sustainable businesses that are looking to sell sustainable products and services should focus on having consumers use credit cards to make those purchases. We extend this research track with thinking on the conservative side. We found that conservative consumers who are risk-takers would use their credit cards more than consumers who are risk adverse. Therefore, although sustainable businesses may not assume that sustainable products and services appeal to conservative consumers, they will if the business focuses on marketing to the conservative, risk-taking credit card users.

Focusing on religion, past research indicates that "consumers who are more religious [are] more likely to participate in sustainable behaviors (e.g., purchasing green cleaning supplies, recycling, purchasing organic foods)" (Minton, Kahle, and Kim 2015, p. 1937). Therefore, if we take our results on religion moderating personality and risk tolerance on credit card usage, we find that there are implications for future research of credit card usage. With credit card usage increasing, businesses will be able to leverage the financial condition, religion, and risk tolerance of their consumers when marketing sustainable products and services. Future researchers should focus on how this is feasible for businesses.

Finally, a newer area of social impact consumer research has focused on the impact of sustainable mindfulness (e.g., Sheth, Sethia, and Srinivas 2011; Stone 2011). Fischer et al. (2017) described sustainable mindfulness as "a supporting factor in achieving greater personal well-being and more ecologically sustainable lifestyles" (p. 546). That is, using the results of our study, we feel that a future area of social impact research could examine how sustainable mindfulness influences our model. For example, does sustainable mindfulness moderate, mediate, or have any impact on credit card usage? Does sustainable mindfulness and credit card usage influence risk tolerance and/or religiosity in any way? Mindfulness has shown to influence prosocial behaviors (Barber and Deale 2014); therefore, how does sustainable mindfulness influence credit card usage today? Credit card usage has profound influence on consumer behavior, what businesses sell, how they sell their products and services (Hira 2012). Future research should look at how consumers' credit card usage, religion, risk aversion, and personality can help influence sustainable competitive advantage (Laszlo and Zhexembayeva 2011). Overall, what we found in our results our preliminary research study suggests a direction for future value-driven consumer research related to consumers' credit card usage influencing sustainable mindfulness, well-being, and social impact. While past research has mainly focused on the financial condition of credit card usage, we proposed a model for future researchers to understand and examine how credit card usage has influence on sustainability, social responsibility, and social impact.

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