

Effects of compulsive buying on debt avoidance and self-esteem: Can brand addiction serve as a socially responsible mediator?

Adi Alić

University of Sarajevo, School of Economics and Business, Sarajevo, Bosnia and Herzegovina
<https://orcid.org/0000-0002-9623-6872>

Ahmed Kadrić

University of Sarajevo, School of Economics and Business, Sarajevo, Bosnia and Herzegovina
<https://orcid.org/0009-0003-7711-8621>

Abstract

Background: Despite its controversial features, compulsive buying is gaining increasing attention in recent scientific marketing literature. A particular emphasis is focused on the overlap between compulsive purchasing and addiction to the brand, as well as an analysis of the combined effects of these two forms of addictive consuming on consumers.

Purpose: This study aims to investigate the connection between brand addiction and compulsive buying, as well as the individual and combined effects of these constructs on self-esteem and debt avoidance. Testing differences between consumers of different genders was also carried out.

Study design/methodology/approach: Data were gathered using a questionnaire in the form of a self-assessment that included demographic questions as well as questions about compulsive buying, brand addiction, avoiding debt, and self-esteem. Upon gathering online data in Bosnia and Herzegovina, partial least squares analysis was performed to analyze the data using structural equation modeling.

Findings/conclusions: The study's findings show that brand addiction and compulsive buying are positively associated. Brand addiction serves as a beneficial mediator between compulsive buying and the goals of debt avoidance and self-esteem, acting as a counterbalance to the detrimental effects of compulsive buying. The study's findings indicate that there are no appreciable differences in the aforementioned correlations between men and women. This study offers empirical proof that compulsive buying and brand addiction are separate but related behaviors. These findings improved the conceptual implications of these two crucial ideas and provided brand managers and marketers with a useful tool for strategic brand management and strategic marketing management in general.

Limitations/future research: Future research can develop conceptual models that are more appropriate, containing characteristics that predict addictive behavior, as well as models for marketing strategies that are sensitive to addictive consumption.

Keywords

compulsive buying, brand addiction, debt avoidance, self-esteem, gender

Introduction

Exposed to daily stressful situations and constant mental and physical tension, people often find a way out by buying various commodities. Although compulsive purchases can create a feeling of

satisfaction, happiness and good mood, usually these are short-term and actually camouflaged feelings. On the other hand, the long-term consequences of this behavior can be very negative and lead the individual into an even greater abyss, both in psychological and real aspects of life, thus

creating a domino effect. Compulsive buying, in this sense, can be seen as a form of addiction and represents a purchase that exceeds the needs and available means of the individual. It represents an ethical issue, as it has negative consequences for customers, their families and creditors.

Compulsive buying disorder was first described by the Swiss psychiatrist Eugen Bleuler in 1915, describing it with the word *oniomania* (from the Greek words: *onios* (= “for sale”), and *mania* (= “madness”). Compulsive buying occurs as a consumer’s reaction to an uncontrollable desire or urge to feel the pleasure of buying a product. Given that it is often repeated, it takes on negative consequences, both for the individual and for society as a whole (O’Guinn & Faber, 1989), since compulsive buyers buy more often and spend more, usually on unnecessary things (Kukar-Kinney, Ridgway, & Monroe, 2012). Both immediate and long-term effects can result from compulsive buying (O’Guinn & Faber, 1989; McElroy, Satlin, Pope, Keck, & Hudson, 1991; Faber & O’Guinn 1992; Dittmar, 2005). The act of buying is accompanied by contentment and happiness, relief from stress, a short-term feeling of satisfaction, strengthening of self-confidence and escape from the feeling of loneliness. The long-term consequences are negative, and they are mainly: growth in indebtedness, subjective feeling of loss of control, and uncertainty. The resulting debts create material and psychological problems. After the purchase, a person may become aware of the consequences of his own behavior and then remorse, euphoria, guilt, anxiety, depression, self-criticism, shame and despair appear. Compulsive shoppers try to hide and forget everything they have bought and try to hide their behavior from others (Hassay & Smith, 1996; Ridgway, Kukar-Kinney, & Monroe, 2008; Kukar-Kinney et al., 2012).

Previous studies have demonstrated that compulsive shoppers are more cognizant of pricing, are more sensitive to product brands and prestige products, and are more price sensitive (Faber & O’Guinn, 1992). Compulsive buyers buy without planning and are impulsive in their purchases (Shoham & Brenčić, 2003; Billieux, Van Der Linden, & Rochat, 2008). Compulsive buying frequently coexists with other addictive behaviors like alcoholism, excessive internet use, gambling disorders, and substance abuse conditions (Faber, Christenson, de Zwaan, & Mitchell, 1995; Mueller, Mueller, Silbermann, Reinecker, Bleich, et al., 2008; Mueller, Mitchell, Peterson, Faber, Steffen,

et al., 2011; Kesebir, İşıtmez, & Gündoğar, 2012; Granero, Fernández-Aranda, Steward, Mestre-Bach, Baño, et al., 2016; Weinstein, Maraz, Griffiths, Lejoyeux, & Demetrovics, 2016), creating in that way a phenomenon of comorbidity. Mrad & Cui (2020) point out a gap in the research and ambiguous findings about how compulsive purchasing is associated with consumers’ connection with brands, despite early research suggesting that brand addiction has detrimental effects comparable to those of other types of various pathological (dysfunctional) forms of addiction (Fournier & Alvarez, 2013). In this sense, the cited authors preliminarily introduce and test a model that looks at the effects of associated addictions on a person’s happiness, ability to avoid debt, and self-esteem. However, the authors do not take into account differences that may occur between individuals of different genders or ages. Namely, previous research suggests that the trait of compulsive buying is significantly more prevalent among women (Faber & O’Guinn, 1992; Zadka & Olajossy, 2016), showing that the prevalence rate of female compulsive buyers ranges from a low of 74 percent (Hanley & Wilhelm, 1992) to a high of 93 percent (Black, Repertinger, Gaffney, & Gabel, 1998). Additionally, studies have indicated that younger people tend to make purchases more compulsively than older people (Myers, 2000). The primary purpose of the current study, which is based on the model developed by Mrad & Cui (2020), is to examine whether brand addiction has an effect on compulsive buying and whether it mediates the relationship between compulsive buying, debt avoidance, and self-esteem, while also examining the differences between respondents of different genders.

Since consumer research has long recognized the significance of comprehending the relationship between compulsive purchasing and other addictive behaviors (e.g., Faber, Christenson, de Zwaan, & Mitchell, 1995; Faber & Christenson, 1996; Kwak, Zinkhan, & Lester Roushazamir, 2004), the current study significantly adds to the body of knowledge regarding addictive consumption and the consumer-brand relationship. The results of the current study can therefore serve as a valuable knowledge base for marketers to develop strategic marketing approaches and practices to prevent adverse effects on consumers and to promote consumers’ healthy consumption and mental health. Customers appear to be ravenous when it comes to compulsive and impulsive buying, according to a Nielsen (2016)

survey; this type of behavior and desire needs to be studied, especially in emerging countries. According to Lavuri and Thaichon (2023), consumers originating from emerging countries present a promising avenue for businesses to address issues related to lifestyle, technology, and financial inclusion. Their impact can be profound and transformative. The consuming environment in Bosnia and Herzegovina, a developing nation, and emerging market, served as the backdrop for the current study.

The rest of the paper is organized as follows. The next section begins with a review of the relevant literature on compulsive buying, brand addiction, debt avoidance and self-esteem, and then explains the proposed theoretical linkages. After that, we present the methodology and main findings. The last section concludes the paper with a discussion on theoretical and managerial implications, avenues for future research and limitations.

1. Literature review

Compulsive shopping is a type of addiction and represents purchasing that exceeds the needs and available means of the individual. Unlike impulsive buying, it is unethical because it can have serious negative effects on consumers' families or creditors in addition to them as consumers. Numerous researchers have given their own interpretation of the concept of compulsive buying. Krueger (1988) states the following definition of compulsive buying: "Compulsive buying is an addictive and/or compulsive trait that results from a series of repetitive buying motives that disrupts the normal functioning of a person." O'Guinn & Faber (1989) define compulsive buying as "chronic, repeated buying that occurs in response to negative events and feelings", while Scherhon (1990) states that negative experiences, boredom, stress, tension and anxiety, are conditions that they lead a person to release negative feelings by shopping, reduce dissatisfaction and frustration, and increase self-confidence. Accordingly, purchasing addiction is characterized by excessive shopping-related thoughts and buying actions that cause injury or discomfort. Compulsive consumers also exhibit fixation with shopping, pre-purchase anxiety, and relief after a purchase (Black, 2007). What can be concluded is that it is an addictive behavior, which has the property of repetition, and is usually the result of negative feelings that occur in an

individual, where the solution to the problem is compulsive buying.

Compulsive buying or oniomania is a disorder often associated with obsessive-compulsive disorder, and arises as a consequence of some other psychological disorder (e.g. depression). Due to the loss of control over one's own behavior or some event, in order to avoid or reduce the feeling of tension and helplessness, one tends to establish some other form of control, in the specific case of repeated shopping (Goldenson, 1984). When a person is in a bad mood, they often try to improve that situation by going shopping, which in most cases ends up being that way. However, in the case of compulsive buying disorder, this act gives people a feeling of satisfaction and happiness, but it lasts very short, because shortly after that, feelings of guilt and awareness that the act of shopping was wrong and unnecessary appear. Despite the negative financial and psychological effects of compulsive purchasing, such as credit card debt, little to no savings, anxiety, depression, irritability, interpersonal conflict, and low confidence (O'Guinn & Faber, 1989; McElroy, Keck, Pope, Smith, & Strakowski, 1994; Roberts, 1998), when anxiety recurs and a person's mood dips, they turn to shopping once more (Workman & Paper, 2010). On the other hand, there is general agreement that compulsive buying is not necessarily pathological (dysfunctional), but rather a severe form of purchasing habits related to attitudes to money and ways to manage finance for some people (Demetrovics & Griffiths, 2012; Müller, Mitchell, & de Zwaan, 2015; Granero et al., 2016). DeSarbo and Edwards (1996) noted that many buyers with compulsive behaviors may be more responsive to their present situation than reflecting an essential psychological difficulty. For example, Johnson and Attmann (2009) and later Aksoy, Akpınar and Özkara (2023) found that consumers with neuroticism are more likely to indulge in obsessive purchasing.

Psychiatrists Kraepelin (1915) and Blueler (1930) established that there are people predisposed to the development of addictive behavior, whether it is uncontrolled shopping, alcohol addiction, pathological gambling, etc. These predispositions can be hereditary (positive family history of depressive disorder, mood disorder or addiction), and can also be a consequence of low levels of the happy hormone in the brain (serotonin). In fact, a distinction can be made between two basic groups of factors that influence the development of compulsive buying:

external (environmental) influences and internal (psychological) influences. Psychological influences coincide with human traits, such as emotional instability, anxiety, low self-esteem and depression, and are considered a key factor in the development of compulsive behavior. Many recent studies have focused on a more detailed consideration of the connection between different personality characteristics and compulsive buying (Tarka, Harnish, & Babaev, 2022; Tarka, Kukar-Kinney, & Harnish, 2022; Otero-López, 2022; Moon, Faheem, & Farooq, 2022; Rizzo, Sestino, Pino, Guido, Natarajan, & Harnish, 2023; Ali, Tauni, & Ali, 2023; Mert & Tengilimoğlu, 2023; Aquino & Lins, 2023). The genesis of compulsive buying behavior is linked to external factors like pricing, product promotion, and credit cards (Workman & Paper, 2010). Recent research also takes a detailed look at external factors (Nanda, Banerji, & Singh, 2023; Lavuri & Thaichon, 2023). Although both factors can individually lead to the emergence of shopping disorders, in most cases it is their mutual interaction.

It is also important to emphasize the difference between the concepts of compulsive and impulsive buying, bearing in mind that the existing marketing literature mainly dealt with issues of impulsive buying. The terms impulsive and compulsive buying differ in one very important characteristic: compulsive buying represents a form of chronic behavior, caused by a person's internal state, in contrast to impulsive buying, which represents an occasional hasty form of behavior (Black, 2010). Despite the fact that compulsive and impulsive purchasing behaviors are strongly correlated (Shahjehan, Qureshi, Zeb, & Saifullah, 2012), compulsive purchasing involves an "inability to control the urge" (Faber et al. 1995) and "leads to extreme negative circumstances" (Ridgway, Kukar-Kinney, & Monroe, 2006). Conversely, impulsive purchasing happens "when a buyer senses a quick, frequently powerful, and persistent want to acquire something right away." The desire to purchase is hedonically complicated and can cause emotional struggle; also, the will to purchase is often accompanied by a lack of consideration for its effects (Rook, 1987).

The truth is that as marketing as a discipline has developed, it has had unforeseen repercussions that have led to consumers spending more money and purchasing unnecessary items, creating serious problems for their well-being that include debt, depressive symptoms, and poor health. Several studies have demonstrated that a variety of

marketing strategies can take advantage of shopping addiction to influence consumers' purchasing decisions. Marketers can increase profits and sales by implementing effective segmentation techniques that consider compulsive behaviors, gender-based variables, and purchasing propensities (Zarate, Fullwood, Prokofieva, Griffiths, & Stavropoulos, 2022). Previously, Kaur, Maheshwari, and Kumar (2019) recommended that marketers think about using different markup techniques for different visible places. In general, the external elements found in the store setting and the attributes of the products can be quite influential in promoting consumers' compulsive buying behavior (Lavuri & Thaichon, 2023). However, it is crucial to recognize that excessive shopping can also have negative effects through the process of negative reinforcement. As such, marketers must actively encourage responsible spending habits rather than take advantage of consumers' trust (Guo, Liang, & Wang, 2023). A growing body of study in marketing, consumer behavior, and psychology has revealed that, of all the frameworks that examine the negative consequences or side effects of purchasing, compulsive buying behavior poses one of the biggest dangers to consumer well-being. Because compulsive buying has a negative impact on people's life, it is considered to be a rising problem that requires attention (Müller et al., 2019). Furthermore, a study suggests that the negative impacts of purchasing extend to one's family, social life, and finances in addition to one's own well-being (Sirgy, Lee, & Yu, 2020). Therefore, for responsible marketers and future research to find ways to focus on preventing the emerging challenges around compulsive buying behavior and how the strategies and techniques should be implemented in a socially responsible way, it is imperative that recent studies show how consumers' buying or purchasing behavior is associated with consumer well-being or ill-being (Nanda et al., 2023). An additional issue stems from the fact that, as the proportion of consumers who shop online has been steadily rising, it is imperative that the issue of compulsive buying in both online and offline channels be examined more thoroughly (Olsen, Khoi, & Tuu, 2022). A change from traditional offline to online compulsive buying behavior disorder has occurred as a result of the increase in e-commerce and the number of individuals making purchases and shopping online (Adamczyk, 2021; Augsburger et al., 2020; Baggio et al., 2022; Fineberg, et al., 2022). Online

purchasing and buying may have an increased addictive potential due to certain internet characteristics and e-marketing (Clark & Zack, 2023).

Finally, as a way to comprehend the concept of compulsive buying in the business context, it is necessary to clarify what the meaning of possession is for a person. For individuals, to own something means to accept it as a part of oneself (Belk, 1988). In 1890, the philosopher and psychologist William James pointed out in his book *The Principles of Psychology* that a person's personality is not only made up of his physical and psychological characteristics, but also includes their family, work, material things, finances, etc., and if they are listed elements on the increase, the man himself feels that he is successful, and if there is a loss of them, he falls into despair. It does not need to be explained, how much this phenomenon of possession is related to brands in the modern consumer society. Shopping is motivated by the need to acquire tangible possessions, which has a beneficial effect on the relationship between brand engagement and purchasing (Goldsmith, Flynn, & Clark, 2011, 2012), eventually resulting in the development of brand fanaticism and brand addiction (Le, 2020). Affluenza theory, as stated by De Graaf, Wann and Naylor (2005), who first coined the term *affluenza*, describes compulsive buying behavior as a psychological and social illness marked by a focus on cultural consumerism and the idea that "more is always better". In other words, it is a destructive habit and an addiction that is firmly established in the constant pursuit of more. Workman and Paper (2010) claim that this theory could serve as an analytical structure for understanding the connection between compulsive buying and brand consumption. In fact, marketing is seen to be a contributing factor to compulsive buying because of the pervasive messaging it uses to encourage materialism and stoke consumer cravings (see Damon, 1988; Roberts & Manolis, 2000). More specifically, compulsive buying is defined by Chinomona (2013) as "an uncontrollable and emotional addiction that is socially and externally induced, for example, through brand advertisements", suggesting that the behaviors of compulsive buyers and branding phenomena may interact. Using three pairs of notions related to "asset (benefit) or liability," i.e., appealing or aggravating the self, enabling or obstructing the self, and enriching or empowering the self, Fournier and Alvarez (2013) developed an attachment-aversion relationship (AA

Relationship) model. They argue that when self-relevant advantages (enticing the self, enabling the self, and enriching the self) materialize, the consumer-brand relationship reaches a level equivalent to other close human relationships. Their model takes into consideration both the good and the bad. Inferring from this justification, this study claims that brand addiction and compulsive shopping are two closely related conceptions in terms of frequent comorbidity, and examines their effects on self-esteem and debt avoidance.

2.1. Compulsive buying and brand addiction

With regard to consumer-brand interactions, emotions run the gamut from light-hearted feelings to strong affection that leads to compulsive obsession (e.g., Fehr & Russell, 1991; Fournier, 1998; Sternberg, 1986). To understand the relationship between consumers and brands along a continuum resembling that of human relationships, starting with non-intense emotions and progressing through moderate emotions, friendly emotions, passionate love, and addictive obsession, Fournier's theory (1998) draws on interpersonal theories. According to Fournier's (1998) empirical research, there are some "dark side" interactions between customers and brands, including "dependence, hostility, servitude, and covert affairs". These connections appear to be connected to general concepts of addiction (Hirschman, 1992). However, if an addictive consumer-brand relationship is sustained by the advantages of luring oneself, enabling oneself, and enriching oneself, it is unlikely that the relationship is inevitably dominated by the "dark side" features (Fournier & Alvarez, 2013).

Research indicates that, despite some overlaps, brand addiction and brand loyalty are two separate concepts in the context of consumer-brand relations (Cui, Mrad, & Hogg, 2018). Brand addiction actually covers a higher degree of brand loyalty (Mrad & Cui, 2017). According to Cui et al. (2018), brand addiction is seen positively as a combination of several appetitive effects, including contentment, gratification, and tranquility. On the other hand, Fournier and Alvarez (2013) looked at the negative aspects of brand addiction and described it as a very intimate relationship where customers may lose their sense of self as they grow more attached to a brand. As a result, the addictive relationship develops into a highly obsessive and destructive one that pushes customers to engage in risky behaviors like compulsive tendencies. These behaviors can have detrimental long-term effects

on the company's operations. On the other hand, although there are studies that show that brand loyalty can lead to detrimental outcomes, such as price unfairness (for example, Riquelme, Roman, Cuestas-Diaz, & Iacobucci, 2019), the generally accepted view is that consumer-brand loyalty leads to favorable behavior.

Brand addiction has developed as one of the most prominent ways in which consumers connect with brands since Fajer and Schouten (1995) first brought addiction up in the context of consumers' interactions with companies. According to Mrad and Cui (2017), brand addiction is a psychological condition in which a consumer is "mentally and behaviorally preoccupied with a specific brand, driven by irrational urges to own the brand's products, involving positive affectivity and gratification." It is a brand concept that refers to consumers' compulsive buying of the brand's items (Cui, Mrad, & Hogg, 2018; Weinstein et al., 2016) and their addicted behavior toward the brand in general. Their constant thoughts and intense emotions are directed toward the brand (Das, Agarwal, Malhotra, & Varshneya, 2019). Brand addiction has been demonstrated to result in a higher level of devotion compared to other brand constructs (Estévez, Jáuregui, Sánchez-Marcos, LópezGonzález, & Griffiths, 2017; Flores, 2004).

Brand addiction and acquisitive desire (AD), or the need to obtain status and pricey possessions, may exhibit some similarities. According to Kottler, Montgomery, and Shepard (2004), an excessive drive to gain, have, or collect goods characterizes AD problems, and are associated with symptoms like anxiety, sadness, and impulsivity. The demand for symbols of success is typically driven by an acquisitive desire albeit these symbols are not always seen negatively (Kottler et al. 2004).

Although brand addiction and compulsive buying are both forms of addictive behavior, there are significant variations between these two concepts (Mrad & Cui, 2020). According to research, obsessive purchasers frequently conceal their purchases and are in denial about the severity of their problems (Faber, O'Guinn, & Krych, 1987). Instead of hiding their addiction, brand addicts publicly promote their obsession with their addictive brands and take great pride in owning products from such brands (Cui et al., 2018). While brand addiction offers long-term satisfactions (Cui et al., 2018), compulsive buying offers temporary relief from dysphoric feelings (Faber et al., 1995). Additionally, their focal point (or "focality")

differs: whereas compulsive buying concentrates on the process of shopping, purchasing, and spending, brand addiction concentrates on a specific brand (Mrad & Cui, 2017).

Considering the foregoing, consumers can gain insight into the hedonic, practical, and/or symbolic advantages of the brand through compulsive buying, which may help them achieve goals that are specific to them and bring the brand closer to them (Fournier & Alvarez, 2013). To avoid unpleasant outcomes, compulsive purchasers may be influenced by negative reinforcement to reduce their compulsive behavior and instead concentrate on the advantages of forging stronger bonds with specific brands. As a result, it is likely that certain compulsive buyers would consciously consider the brands they are exposed to repeatedly and grow an addiction on a specific brand (Mrad & Cui, 2020). According to what was stated above, the following hypothesis was established:

H1: Compulsive buying has a positive impact on brand addiction.

1.2. The consequences of compulsive buying and brand addiction

Compulsive buying could have devastating financial repercussions for a person. Compulsive buyers find it difficult to regulate their spending and may accumulate significant debt (Achtziger, Hubert, Kenning, Raab, & Reisch, 2015). Using loans to finance their purchases is a common habit among compulsive buyers. According to their reasoning, these people view buying things as a way of coping with negative feelings and might therefore turn to borrowing when their own resources are insufficient to cover the cost of their desire to acquire things (Black, 2007). According to prior studies, compulsive shoppers frequently lose control over their purchases and accumulate extremely high levels of debt (Black, 2007; Christenson, Faber, de Zwaan, Raymond, Specker, et al., 1994; O'Guinn & Faber, 1989; Schlosser, Black, Repertinger, & Freet, 1994; Achtziger et al., 2015; Mestre-Bach, Steward, Jiménez-Murcia, & Fernández-Aranda, 2017), whereby among the numerous forms of loan reliance takes are credit card debt, personal loans, and advances (Duh & Thorsten, 2019; Maraz, Eisinger, Hende, Urbán, Paksi, et al., 2015; Prawitz, Garman, Sorhaindo, O'Neill, Kim, et al., 2006).

Less is understood about buyers' compulsive awareness to avoid debt, though. It is reasonable to assume that most people do not aim to accumulate

debt. Debt may be the result of irresponsible spending or the fact that a person's urge to spend exceeds their awareness of how to avoid it. The research in this area is a bit erratic. For instance, in contrast to earlier research by the Kukar-Kinney et al. (2012), which claimed that compulsive shoppers are more conscious of costs and more responsive to deals than non-compulsive shoppers, a subsequent study by the same authors (Kukar-Kinney, Scheinbaum, & Schaeffers, 2016) refuted this notion. According to the findings of the Mrad and Cui (2020) study, compulsive buying has a detrimental effect on debt avoidance. In view of the aforementioned, we hypothesize:

H2: Compulsive buying has a negative impact on debt avoidance.

Unlike research related to compulsive buying, there is much less research on the negative financial consequences of brand addiction. Because of this, there is little evidence to prove that brand addicts will undoubtedly incur debt or file for bankruptcy. According to preliminary empirical research in the literature, brand addicts may set aside an amount of their regular earnings to purchase the goods from their preferred brands (Mrad & Cui, 2017) and "if necessary wait until they can next afford to buy the addictive brand either by saving money or by working very hard to earn sufficient money" (Cui et al., 2018). These first results imply that brand addicts are conscious of the value of avoiding debt.

It can be argued, drawing on Cheema and Soman's (2008) partitioning theory that brand addicts are actively involved in activities associated with addictive brands, drawing attention to the decision to buy, and leading to consumers choosing to put off or postpone the purchase, especially if it is expected to leave them in debts, if it is anticipated to result in debts. Also, the AA relationship model asserts that brand addicts, who are dealing with challenging debt issues, are less likely to be in a healthy psychological condition (Mrad, 2018; Mrad & Cui, 2017; Cui et al., 2018). Brand addiction recently received empirical confirmation from Mrad and Cui (2020) that it significantly improves the ability to avoid debt. Based on the aforementioned, it is reasonable to assume that:

H3: Brand addiction has a positive impact on debt avoidance.

Consumer buying behavior models typically imply that people tend to buy things that are consistent with their own sense of self or with the image they want to project. In particular, it has been claimed that a buyer might contrast a product's symbolic or perceived qualities with its potential to boost their self-esteem. Self-esteem is the degree of a person's positive self-concept and is defined as how they feel about their own value or worth (Rosenberg, 1979). According to Cooley (1902) and Rosenberg (1979), an individual's sense of their own self-worth also reflects their perceptions of what others think of them. The self-esteem motive may be one of the most powerful of all human motives (Rosenberg 1979), which might even be strong enough to override a behavior's constraints (Hanley and Wilhelm, 1992).

According to the literature, poor self-esteem and feelings of powerlessness may be the fundamental causes of compulsive/addictive behaviors in general (Krueger 1988; D'Astous, 1990; DeSarbo & Edwards, 1996; Elliott, 1994; Faber & O'Guinn, 1992; Hanley & Wilhelm, 1992). For instance, Eastman et al. (1997) suggested that status indicators other than an individual's image or professional standing should be ownership of status products. In this situation, compulsive shopping is thought to be motivated by low self-esteem.

However, it is also possible to view compulsive buying as a way for certain people to overcome their negative feelings (Ching & Wu, 2018) and regain their self-esteem (Martinez-Novoa & Hodges, 2016). DeSarbo and Edwards (1996) demonstrate that compulsive buyers engage in buying and purchasing behaviors to boost their sense of self-worth, self-assurance, and personal power. A lack of self-esteem, however, "may not only be a precursor to compulsive buying, but also an outcome of the vicious circle of addiction" (DeSarbo & Edwards, 1996) when indulging in such activities results in shopping addiction. In other words, compulsive buying and self-esteem are incompatible (Mrad & Cui, 2020). Consequently, it is also proposed in the current research that:

H4: Compulsive buying has a negative impact on self-esteem.

Consumers may “addictively get involved in the consumption of products from certain brands as a way to enhance their self-esteem through their appearance” (Mrad & Cui, 2017), as a crucial source of all-around self-esteem (Rosen & Gross, 1987). This runs counter to the vast majority of compulsive buying research findings. According to the literature, consumers buy particular goods like jewelry and cosmetics to enhance their physical appearance, which increases their sense of self-worth (Hoegg, Scott, Morales, & Dahl, 2014). According to Hanley & Wilhelm (1992), consumers are encouraged to support brands that reflect their own self-image or allow them to project their ideal selves. Additionally, there is proof that the strongest factor influencing customers’ emotional brand attachment is genuine self-congruence (Huber, Eisele, & Meyer, 2018; Japutra, Ekinici, & Simkin, 2019; Malär, Krohmer, Hoyer, & Nyffenegger, 2011). According to Malär et al. (2011), “actual self-congruence reflects the consumer’s perception of the fit between the actual self and the brand’s personality.” Brands serve as symbols of personal achievement and provide people with confidence by linking with their mental self-representations (Escalas, 2004). Given that consumers are driven in their thinking and actions based on earlier retrospective experiences involving self-awareness with some brands in compulsive buying can set off an ongoing cognitive process of selecting those brands and establishing an attachment to the brands to sustain a sense of self-esteem (Mrad & Cui 2020). Empirical evidence supports the association between brand addiction and self-esteem (Elhajjar, Kaskas, & Tlaiss, 2022; Mrad & Cui, 2020). It follows that it is conceivable to hypothesize that:

H5: Brand addiction has a positive impact on self-esteem.

The directions of the impacts of compulsive buying (all negative) and brand addiction (all positive) show that brand addiction shows competitive mediation effects (Zhao, Lynch Jr., & Chen, 2010). In particular, brand addiction acts as an inhibitor when it is triggered by compulsive purchasing experiences (Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001), causing the negative effects of compulsive buying on debt avoidance and self-esteem to be suppressed due to brand

addiction’s positive effects on these factors (Mrad & Cui, 2020). In this case, becoming addicted to a brand may enable a person to stop engaging in compulsive buying, and the negative impacts of compulsive buying may be mitigated by the brand addiction experience. Considering the foregoing, we recommend using the following mediation assumptions:

H6: The relationship between compulsive buying and debt avoidance in H2 is mediated by brand addiction.

H7: The relationship between compulsive buying and self-esteem in H4 is mediated by brand addiction.

Many previous studies have found that gender was related to compulsive buying behavior, where females are more prone to compulsive buying than males (Achtziger et al., 2015; Dittmar, 2005; d’Astous, 1990; Hanley & Wilhelm, 1992; O’Guinn & Faber, 1989; Roberts, 1998; Schlosser et al., 1998). According to surveys, the proportion of compulsive female shoppers varies between a low of 74 percent (Hanley & Wilhelm, 1992) to a high of 93 percent (Black et al., 1998). As a result, studies on this subject frequently concentrate solely on women (Yurchisin & Johnson, 2004).

Because they often utilize it to regulate their emotions, women are more likely to indulge in compulsive buying (Dittmar, Long, & Meek, 2004). Women place a greater emphasis on the emotional and identity-related aspects of shopping than do males (Babin, Darden, & Griffin, 1994; Dittmar et al., 2004). They typically have positive attitudes toward browsing, shopping, and social interaction and associate purchasing with a “leisure frame”, whereas men typically have negative attitudes and perceive purchasing in a “work frame”, as a task they want to complete with the least amount of time and effort possible (Campbell, 2000). For instance, female consumers stated the usage of apparel to promote a positive self-image and increase confidence more frequently than male shoppers (Dittmar & Drury, 2000). Clearly, for certain commodities (such tools or computer equipment), this overall tendency may be weaker or even the opposite. These results lead us to the expectation that the associations suggested by the prior hypotheses (H1 through H5) will differ in strength depending on the gender of the customer, being stronger for women than for males (H8a-H8e).

2. Research method

2.1. Data collection and questionnaire design

The research is based on a quantitative approach, using the survey questionnaire technique for the research. This method is employed for a wide range of data collection in empirical studies (Sarstedt, Hair, Cheah, Becker, & Ringle, 2019). Using an

online questionnaire as a data collection tool, data were gathered. Through the unlikely snowball sampling technique, the respondents were approached via email and social media sites Facebook, Instagram, and LinkedIn. A total of 270 complete online questionnaires were collected by adults from the Sarajevo Canton, Bosnia and Herzegovina. Detailed breakdown of the sample characteristics is shown in Table 1.

Table 1 Demographic characteristics

Variable	Frequencies	%	Variable	Frequencies	%
Gender			Education		
Female	192	71.1	High school or below	65	24.1
Male	78	28.9	College or vocational school	31	11.5
Age			Bachelor's degree	103	38.1
Less than 25	136	50.4	Master's degree or higher	71	26.3
26 - 45 years	105	38.9	Socio-economic status		
46 and more	29	10.7	Student	85	31.5
Income			Unemployed	26	9.6
Under BAM* 1,000	92	34.1	Employed	152	56.3
BAM 1,001 – 1,500	60	22.2	Retired	7	2.6
BAM 1,501 – 2,000	48	17.8			
BAM 2,000 +	70	25.9			

Note: * The Bosnia-Herzegovina Convertible Mark (BAM) is the national currency of Bosnia and Herzegovina

Source: the authors' own research

The questionnaire comprised of thirty-three questions, divided into two sections. The sociodemographic information of respondents was gathered in the first phase of the survey. The questionnaire's second segment included items measuring the following constructs: (1) compulsive buying – five items adapted from the work of Faber and O'Guinn (1992); (2) brand addiction and debt avoidance – 13 items adapted from the work of Mrad and Cui (2017); and (3) self-esteem – a shortened version of Rosenberg's (1965) RGSE scale (Rosenberg General Self-Esteem Scale) was used, whereby five items were taken, while the negative items of the RGSE scale were not included, considering that they are associated with "self-discrepancy" (Alessandri, Vecchione, Eisenberg, & Laguna, 2015), which is not the focus of this study. A seven-point Likert scale, with a range of 1 to 7, was used to score statements that were positive in nature and related to each concept. The original questionnaire was in English, so we translated it and adapted it to the official language of Bosnia and Herzegovina. A pilot study was run with 40 participants, in order to ensure that the participants would understand each and every item used in the final questionnaire.

2.2. Data analysis

To test study hypotheses, partial least square structural equation modelling (PLS-SEM) was used. First, we looked at measurement models for reliability metrics including factor loading, Cronbach's alpha, rho_A, and composite reliability. Convergent and discriminant validity were additionally guaranteed. Prior to modelling structural equations, we also looked at model fit, collinearity, and R-square. Fourth, we tested the structural model, and presented the results of structural modelling. For data analysis, we utilized SPSS (version 24.0) and SmartPLS (version 3.3.3) software.

3. Results

Following the aforementioned steps proposed by Hair, Hult, Ringle, and Sarstedt (2018), a factor loading test was first performed. The construct in this scenario describes more than 50% of the variation of the indicator, which ensures the indicator has an adequate level of dependability. Therefore, factor loading values above 0.7 are advised (Hair et al., 2018). The factor loading values in our research are presented in Table 2 and as we can see, the values for all items meet the previously mentioned criteria.

Table 2 Scaling and measurement properties

Constructs	Code	Dimensions and manifest variables	λ	Cronbach alpha	rho_A
Compulsive buying (CB)	cb1	If I have any money left at the end of the pay period, I just have to spend it.	0.813	0.868	0.876
	cb2	I felt anxious or nervous on days I didn't go shopping.	0.826		
	cb3	I bought things even though I couldn't afford them.	0.880		
	cb4	I made only the minimum payments on my credit cards.	0.452*		
	cb5	I wrote a check when I knew I didn't have enough money in the bank to cover it.	0.864		
Brand addiction (BA)	ba1	I try very hard to get everything from my favorite brand.	0.779	0.923	0.938
	ba2	I often fail to control myself from purchasing products of my favorite brand.	0.755		
	ba3	I often find myself thinking about my favorite brand.	0.807		
	ba4	I tend to give up some life activities and duties such as the occupational, academic and familial in order to fulfil some activities related to my favorite brand.	0.747		
	ba5	I tend to allocate certain portion of my monthly income to buy the products of my favorite brand.	0.789		
	ba6	I usually remember fondly the previous experience with my favorite brand.	0.701		
	ba7	I experience a state of impatience immediately before I can get hold of the products of my favorite brand.	0.789		
	ba8	I follow my favorite brand's news all the time.	0.778		
	ba9	I usually plan when the next purchase of my favorite brand will be.	0.718		
	ba10	I would invest my money in some way to my favorite brand in order to support it.	0.768		
Debt avoidance (DA)	da1	I only spend as much as I can afford.	0.875	0.843	0.854
	da2	I will not purchase things I like if I know this will put me into debt.	0.889		
	da3	It is important to live within my means.	0.851		
Self-esteem (SE)	se1	I feel that I am a person of worth, at least on an equal plane with others.	0.796	0.914	0.927
	se2	I take a positive attitude towards myself.	0.881		
	se3	I have a number of good qualities.	0.894		
	se4	I am able to do things as well as most people.	0.861		
	se5	On the whole, I am satisfied with myself.	0.873		

Note: *This item was excluded in further research

Source: the authors' own research

The Cronbach alpha coefficient and composite reliability (CR) ratings were used in the second step to verify the measurement scales' dependability, as advised by Hair, Sarstedt, Ringle, & Mena (2012). As shown in the previous table (Table 2), Cronbach's alpha coefficients are above the minimum predicted threshold of 0.7 (Nunnally, 1978). Additionally, all of the study's constructs were found to be sufficiently trustworthy, with scores for the overall reliability measure exceeding the advised cut-off point of 0.70 (Fornell & Larcker, 1981) (see Table 3).

The third step involves assessing the convergent validity of the measurement scales. Average variance extracted (AVE) is the metric used to evaluate convergent validity. According to Hair, Black, Babin, and Anderson (2010), AVE

values greater than 0.5 signify good convergent validity. As can be seen in Table 3, the AVE values for our measurement model are greater than 0.5, which indicates good convergent validity.

The fourth step refers to the assessment of discriminant validity, which shows the extent to which each construct is empirically different from other constructs in the model. Fornell and Larcker (1981), as a traditional assessment of discriminant validity, suggest that the AVE values of each construct should be compared with the construct's squared correlation with all other constructs in the model (as measures of shared variance), whereby the shared variance should not be greater than associated AVE values. Table III shows indicators of discriminant validity, which point to acceptable values and satisfactory discriminant validity.

Table 3 Discriminant validity of constructs

Construct	CR	AVE	DA	CB	BA	SE
Debt avoidance (DA)	0.905	0.760	0.872^a			
Compulsive buying (CB)	0.910	0.716	-0.413	0.846		
Brand addiction (BA)	0.933	0.581	-0.107	0.487	0.762	
Self-esteem (SE)	0.935	0.743	0.387	-0.152	0.034	0.862

Note: ^aSquare root AVE values are in diagonals (bold) and correlations (r) are off-diagonal values
Source: the authors' own research

The structural equation modelling technique requires the elimination of multicollinearity problems. The variance inflation factor (VIF) is most often used for this purpose. When the VIF values are higher, the level of multicollinearity is higher. VIF values of 5 or more indicate multicollinearity problems among constructs (Huang, 2021). VIF values should ideally be below or near to 3. The VIF values in our study are less than 5, which puts them in the range of 1.000 and 1.311, and it shows that the variables are not collinear.

We used SRMR and NFI indicators of representativeness of the model. Acceptable values of SRMR range between 0 and 1, and those less than 0.008 can be considered ideal for good representativeness of the model (Bentler & Bonett, 1980). The acceptable range of values for the NFI indicator is between 0 and 1, and values greater than 0.90 are the most acceptable in the context of the representativeness of the overall model (Bentler & Bonett, 1980; Hu & Bentler, 1998). In our research, the SRMR value is 0.073, which is less than 0.08. The NFI value is 0.815, and it is less than 0.9, but shows a slight deviation from the cut-off value.

The bootstrapping approach was used to evaluate the structure based on the favorable outcomes. The main results of the study are presented in Table 4 below. As can be seen, the findings support hypothesis H1's prediction that compulsive buying and brand addiction have a positive and highly significant connection ($B = 0.487, p < 0.001$). The compulsive buying was also found to be negatively associated with the debt avoidance ($B = -0.473; p < 0.001$) and self-esteem ($B = -0.221; p < 0.01$), providing support for hypotheses H2 and H3. It was also found that brand addiction is positively related to debt avoidance (B

$= 0.124; p < 0.05$), supporting hypothesis H4. In addition, brand addiction and self-esteem were found to be statistically significantly correlated ($B = 0.142; p 0.05$), confirming hypothesis H5.

An assessment of model explanatory power was also performed. The R-Sq values for the endogenous variables ranged between 0.031–0.245 across the samples (Female, Male, and Complete sample) in the study. The R-Sq values can be described as weak to substantial (Hair, Ringle, & Sarstedt, 2013). Predictive relevance was assessed using Q-Sq value. The Q-Sq values of the endogenous constructs ranged from 0.005–0.235. The Q-Sq values in the study can be described as weak to substantial (Hair et al., 2013).

3.1. Mediation analysis

In order to evaluate the mediating function of brand addiction in the connections between compulsive buying and avoiding debt as well as the connections between compulsive buying and self-esteem, mediation analysis was conducted. The results (see Table 5) revealed a significant indirect effect of CB on DA ($B = 0.060, p < 0.05$). The direct effect of CB on DA was significant ($B = -0.473, p < 0.001$), and with the inclusion of the mediator (BA), the total effect of CB on DA was still significant ($B = -0.413, p < 0.001$). This shows that brand addiction partially mediates the relationship between CB and DA. Hence, H6 was supported. The findings also showed that brand addiction played a significant moderating influence in the association between compulsive buying and self-esteem ($B = 0.069, p 0.05$). As a result, hypothesis H7 was supported because brand addiction serves as a partly mediating factor in the link between compulsive shopping and self-esteem.

Table 4 Direct relationships

Hypotheses	Female			Male			Complete					
	B	T	p	Results	B	T	p	Results	B	T	p	Results
H1: CB → BA	0.463	5.434	0.000	Accepted*	0.503	4.852	0.000	Accepted*	0.487	9.496	0.000	Accepted*
H2: CB → DA	-0.501	6.080	0.000	Accepted*	-0.371	4.852	0.000	Accepted*	-0.473	7.531	0.000	Accepted*
H3: CB → SE	-0.258	2.589	0.010	Accepted*	-0.212	2.002	0.046	Accepted*	-0.221	3.025	0.003	Accepted*
H4: BA → DA	0.215	2.537	0.011	Accepted*	0.210	2.152	0.032	Accepted*	0.124	2.033	0.042	Accepted*
H5: BA → SE	0.234	2.494	0.013	Accepted*	0.059	2.577	0.010	Accepted*	0.142	2.322	0.020	Accepted*
	R-Sq	Q-Sq			R-Sq	Q-Sq			R-Sq	Q-Sq		
BA	0.209	0.193			0.245	0.235			0.234	0.225		
DA	0.187	0.135			0.085	0.045			0.176	0.154		
SE	0.053	0.005			0.038	0.013			0.031	0.011		

Note: *Relationship is significant at p < 0.05, B = Beta Coefficient, T = t - Statistics, p = Probability (P) value. Source: the authors' own research

Table 5 Mediation analysis

Relationships	Total effect			Direct effect			Indirect effect				
	B	T	p	B	T	p	B	T	p		
CB → BA → DA	-0.413	6.724	0.000	-0.473	7.531	0.000	0.060	1.927	0.027	0.014	0.117
CB → BA → SE	-0.152	2.229	0.013	-0.221	3.025	0.001	0.069	2.135	0.016	0.007	0.116

Note: *Relationships are significant at P < 0.05, B = Beta Coefficient, T = t - Statistics, P = Probability (P) value. Source: the authors' own research

4.2. Multi-group analysis

We examined the significant differences between male and female regarding the effects of compulsive buying on brand addiction, debt avoidance, and self-esteem, as well as the effects of brand addiction on debt avoidance and self-esteem. This is in line with the research hypotheses. The results showed that none of the differences were statistically significant, indicating that there is no statistically significant distinction in the path coefficients for males and females. In this sense, our results do not support hypotheses H8a to H8e. Table 6 lists the outcomes of the multi-group analysis.

Table 6 Multi-group analysis

Relationships	Difference (Male – Female)	p-value
H8a: CB → BA	-0.040	0.155
H8b: CB → DA	-0.130	0.359
H8c: CB → SE	-0.047	0.373
H8d: BA → DA	0.005	0.487
H8e: BA → SE	-0.025	0.426

Source: the authors' own research

5. Discussion

The primary goal of this study was to determine how compulsive buying and brand addiction are related, as well as their relationships with two consumers behavioral outcomes, debt avoidance and self-esteem. The current study also looked at the mediating function of brand addiction in the connections between compulsive buying and self-esteem and compulsive buying and debt avoidance. Finally, gender differences are explored.

The study's findings revealed that brand addiction is significantly impacted by compulsive buying. This result is consistent with a study by Mrad & Cui (2020), which showed that some consumers might change from compulsive purchasing to brand addiction. In this study, brand addiction was observed as an outcome of compulsive buying, in contrast to earlier studies where compulsive buying was regarded as a brand addiction consequence (e.g. Cui et al., 2018; Francioni, Curina, Hegner, & Cioppi, 2021; Reimann, Castaño, Zaichkowsky, & Bechara, 2012). These results could be seen as showing how the short-term rewards of compulsive buying lead people to seek out the long-term rewards of brand satisfaction, making them brand addicts (Faber et al., 1995). As a result, the detrimental impacts of

compulsive buying (Faber & Christenson, 1996; Faber & O'Guinn, 1992; Hassay & Smith, 1996; O'Guinn & Faber, 1989) may be lessened due to the potential that brand addiction coexists with compulsive buying (Mrad & Cui, 2020). This raises new questions about the underlying causes of compulsive buying.

The findings further support the predictions made by our model about the detrimental impacts of compulsive buying and the beneficial effects of brand addiction on self-esteem and debt avoidance. Providing support for previous findings about positive consequences of brand addiction (e.g., Cui et al., 2018; Elliott, Eccles, & Gournay, 1996; Mrad & Cui, 2017; Mrad & Cui, 2020), and negative consequences of compulsive buying (e.g. Achtziger et al., 2015; DeSarbo & Edwards, 1996; Mestre-Bach et al., 2017; Mrad & Cui, 2020), these results also empirically confirm the separation of brand addiction from compulsive shopping, even though both fall under the umbrella of consumption addiction. The outcomes of these associations improved the conceptual meanings of these two important concepts in this way and helped to clarify the differences between the two types of addictive consumption.

In an effort to understand in more detail the coexistence and combined action of the concepts of compulsive buying and brand addiction, mediation analysis was performed. This analysis shows that brand addiction positively influences the relationship between compulsive buying and self-esteem, as well as the relationship between compulsive buying and avoiding debt. In other words, there is a possibility that brand addiction could mitigate or even erase the negative effects of compulsive buying behavior. These findings are in line with those of the Mrad and Cui (2020) study as well. As such, to avoid or reduce harmful addictive behavior like compulsive buying, treatment programs may be improved by better understanding the comorbidity effects between these two linked forms of addiction (e.g. Faber et al., 1995). Brand addiction may be a non-pathological addiction in terms of avoiding debt and maintaining one's self-esteem, according to Mrad and Cui (2020), and it may coexist with compulsive buying as a pathological addictive habit in some consumers.

Ultimately, the multi-group analysis was carried out to investigate differences between males and females in the study's context, in line with many prior studies that have found that gender plays a significant role in compulsive buying

behavior (e.g. Achtziger et al., 2015; Black et al., 1998; Dittmar, 2005) or consumers' connections to brands (e.g. Basu Monga, 2002; Beck, 1988; Wood, 2000). The research findings, however, did not show that there is a statistically significant difference when it comes to gender in any of the hypothesized relationships in this research. The reasons for such findings probably lie in the fact that this is a general study, with the investigation of general attitudes about the constructs of interest in the research. In this sense, the pattern of behavior of men and women is not significantly different, and the intensity and direction of the relationships between the constructs that are investigated in this research can be generalized for consumers, regardless of their gender. However, it is to be expected that with the analysis of purchase motives within different categories of products or services, or research related to a specific brand, the findings would be gender biased.

The study's findings improved the conceptual implications of these two important concepts and gave brand managers and marketers a useful tool for strategic brand management and strategic marketing management in general by providing empirical evidence that compulsive buying and brand addiction are distinct but related behaviors. It is common knowledge that businesses are up against more competition than ever before, and marketers confront a challenging challenge in trying to comprehend consumer behavior. In order to create, communicate, and deliver products that add value to customers in exchanges with organizations, organizations must first understand organizational, interorganizational, and environmental phenomena. These phenomena are critical to an organization's long-term performance. Additionally, organizations must understand how they behave in the marketplace and in their interactions with competitors, customers, and other external constituencies. Lastly, organizations must understand the general management responsibilities of the marketing function to fulfil its boundary-spanning role (Varadarajan, 2015). Due to the fact that the consumer serves as the user, buyer, and payer in the process, consumer behavior is crucial to strategic marketing. When the variables that impact consumer behavior change, so does the behavior of the consumers. In this regard, it is crucial for marketing decision-making at the strategic level to summarize consumer behavior both generally and in the current context of very prevalent, concerning, and addictive shopping

behaviors. While your brand undoubtedly shapes how the outside world perceives your company, it also serves as a tool for self-identification and self-understanding for consumers. The company's brand is its reputation and primary differentiator. It is unquestionable that strategic brand management is essential to attracting and retaining customers. Therefore, to support the strategic marketing planning process, the strategic brand management must carefully align the company's global marketing strategy with the intended brand image and plan the brand's medium- and long-term goals (Erdil, 2013). The significance of the study's findings increases when we consider how commonly accepted it is that marketing plays a significant role in our corporate environment and that businesses have social obligations related to corporate social responsibility. The idea of corporate social responsibility challenges excessive consumption and environmental harm brought on by businesses. It is predicated on the notion that, in addition to being profit-driven, market offerings ought to uphold moral and social principles for the good of the populace. Corporate Social Responsibility (CSR) is being pushed as a business model to assist corporations in self-regulation, realizing that their actions affect a variety of stakeholders, including the public (Armstrong & Kotler, 2008). It is accurate to discuss the idea of social marketing, which maintains that companies should provide pertinent information about their goods to minimize the negative environmental effects of their products and safeguard public health and the environment as a whole. It further asserts that marketing initiatives must be planned with consideration for both environmental and societal responsibility. According to Sârghie (2021), "social marketing may be one of the few avenues (if not the only) to effectively and broadly confront this problem, a problem with serious consequences for the affected people, their families and social networks, as well as society at large".

6. Conclusion

The theoretical framework for the present study was provided by theoretical viewpoints on compulsive buying, which viewed it as a particularly extreme instance of psychologically motivated purchasing that is characteristic of modern consumer culture. The current study departs from this long-held conventional wisdom and requires examination of this contentious subject from a marketing viewpoint, despite the

increasing acceptance of compulsive buying behavior as a serious clinical issue that requires psychological and psychiatric assistance (Black, 2007; Croissant, Klein, Löber, & Mann, 2009; Mueller et al., 2011; Palan, Morrow, & Trapp, 2011). This study made a successful effort to link compulsive buying behavior to branding phenomena or the interaction between the two. The current study focused more carefully on determining how brand addiction and compulsive buying are related, as well as how these factors affect consumers' ability to manage their debt and feel confident in themselves. More interesting, the study considered gender differences in the patterns of association between four mentioned constructs (compulsive buying, brand addiction, debt avoidance, and self-esteem). Additionally, the current study looks into these controversial problems in the perspective of developing economy research, Bosnia and Herzegovina. Therefore, it is anticipated that both academics and practitioners will benefit from the outcomes of this empirical study in terms of fresh insights and implications.

6.1. Theoretical and managerial implications

By methodically examining the effect of compulsive buying behavior on branding addiction and their concomitant influence on debt avoidance and self-esteem in the context of Bosnia and Herzegovina, one of the developing countries on the European continent, this study significantly contributes to the body of knowledge in the academic fields of brand management, marketing, consumer study, and clinical psychology. In particular, in terms of their effects on consumers, current research shows variations between compulsive buying and brand addiction. These findings provide important evidence that it is crucial to distinguish between distinct types of addiction, some of which may have negative consequences whereas others may not (O'Guinn & Faber, 1989). One important implication is that the concept of addiction in consumer study needs to encompass excessive but non-pathological (i.e., not leading to dysfunctional outcomes) addictions. Without assuming that all addictions are pathological or akin to substance addiction, research into these addictions should be done.

Additionally, this study shows how brand addiction acts as a helpful mediator in the connections between compulsive buying, self-esteem, and debt avoidance. The possibility that brand addiction may coexist with compulsive

buying raises new questions about what underlying factors may help turn an individual's tendency for compulsive buying into brand addiction for more advantageous consumption, even though compulsive buying can have negative effects (Faber & Christenson, 1996; Faber & O'Guinn, 1992; Hassay & Smith, 1996; O'Guinn & Faber, 1989). There is still much to learn about the advantages and disadvantages of brand dependency as well as how the coexistence of the two addictions influences consumers' thoughts and behavior in response to their encounters in life and the marketing environments. The literature currently available describes many negative effects of compulsive buying, but there is still much to learn about the positive and negative aspects of brand addiction. In this sense, the study argues that clinical psychologists aiming to treat compulsive buying behavior should start to think about this issue as involving both marketing and branding as well as the interaction of psychological and societal elements.

From the managerial perspective, the findings of this study present a significant ethical conundrum for businesses or business marketers. For many years, the persistently negative connotation of addicted consuming makes it difficult for businesses to promote their goods and brands without running the risk of ethical marketing issues. However, there has been an evident change in business strategy in recent years, as a result of significant changes in consumer behavior as well as the introduction of new digital and communication technologies. In the hierarchy of significance, the client now takes precedence over the product rather than the other way around. Therefore, it has become essential that businesses develop plans that aid in the development of solid, long-lasting relationships with their customers. Because of this, marketing today serves a number of purposes in addition to generating quick profits, such as giving people access to healthy options, improving their quality of life, and benefiting society as a whole (e.g. Horváth & Adgüzel, 2018; Horváth & Birgelen, 2015). Based on the findings of this study, which demonstrate that brand addiction has beneficial impacts on consumers' self-esteem and debt avoidance and that compulsive buying may have a less negative impact on these results when brand addiction is present, marketing specialists can examine techniques for improving customer-brand interactions that could lessen or possibly eliminate

some of the adverse impacts of compulsive consumer purchase.

Marketing practitioners can use guilt-inducing reminders of the negative effects of overspending and accruing debt from compulsive buying in their marketing communications to improve the evaluation of bad consumer behavior and promote good, healthy consumption through strong relationships with brands. Brands can defend themselves against accusations that their marketing strategies encourage out-of-control spending in this way. For example, marketing professionals can develop effective strategies to inform consumers, boost consumers' positive mind-sets and actions in these features, and send clear messages on avoiding undesirable behaviors like excessive spending through the brand's touchpoints, such as marketing, sales campaigns, narratives in new product releases, and social media platforms. For instance, the information could include a phone number or internet address, where obsessive purchasers can call to obtain assistance for their issue (Shulman, 2015).

Certainly, the question is justified: Why would companies do this? In this context, one must not forget that one of the fundamental strategic postulates of marketing is the maintenance of long-term relationships with consumers. In addition, the fact that new generations are much more sensitive to the ethical and social responsibility of companies (Yamane & Kaneko, 2021) and accordingly oriented towards ethically responsible consumption, must be taken into account when making decisions about strategic marketing and in general business goals of companies.

6.2. Limitations and future research

Regardless of the evident academic and practical contributions of the study, some limitations are worth acknowledging. First, the generalizability of our findings may be limited, given that this study adopts a convenience sample with relatively small sample size ($N = 270$). To validate the findings of the current study, additional research using bigger, probability-based samples should be encouraged. In addition, future research can be done by focusing on specific brands, which can certainly help determine potential differences in the mentioned addiction phenomena, in terms of gender. Second, the current study did not examine the causes of the two types of addiction and their impacts on other outcomes outside the current research's scope of debt avoidance and self-esteem. In order to improve our understanding of

the potential causes and interactions that arise when compulsive buying and brand addiction coexist within a consumer's addictive consumption, additional studies—especially experimental and longitudinal studies—can extend our research by examining other pertinent antecedents and consequences of compulsive purchasing and brand addiction. Future researchers are encouraged to investigate the theory in various nations, cultural contexts and with different product categories, with the option of using observational techniques to gauge the participants' emotional and behavioral reactions (for example, experiments). Considering the growing trend of older adults using the internet, comparing different generations could also be a topic of future research. Empirical studies should assess compulsive customers' perceived or real vulnerability and how it affects their susceptibility to marketing campaigns.

References

- Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: the links between self-control, compulsive buying, and real debts. *Journal of Economic Psychology*, 49, 141-149. <https://doi.org/10.1016/j.joep.2015.04.003>
- Adamczyk, G. (2021). Compulsive and compensative buying among online shoppers: an empirical study. *PLoS ONE* 16(6), e0252563. <https://doi.org/10.1371/journal.pone.0252563>
- Aksoy, B., Akpınar, A., & Özkara, B. Y. (2023). The impact of neuroticism on compulsive buying behavior: the mediating role of the past-negative time perspective and the moderating role of the consumer's need for uniqueness. *Journal of Marketing Theory and Practice*, 31(3), 352-367. <https://doi.org/10.1080/10696679.2022.2076247>
- Alessandri, G., Vecchione, M., Eisenberg, N., & Laguna, M. (2015). On the factor structure of the Rosenberg (1965) General Self-Esteem Scale. *Psychological Assessment*, 27(2), 621-635. <https://doi.org/10.1037/pas0000073>
- Ali, A., Tauni, M. Z., & Ali, A. (2022). The Big Five dyad congruence and compulsive buying: a case of service encounters. *Journal of Retailing and Consumer Services*, 68(2), 103007. <https://doi.org/10.1016/j.jretconser.2022.103007>
- Armstrong, G., & Kotler, P. (2008). *Principles of Marketing*. 12th ed. New Jersey: Pearson Education.
- Aquino, S. D., & Lins, S. (2023). The personality puzzle: a comprehensive analysis of its impact on three buying behaviors. *Frontiers in Psychiatry*, 14, 1179257. <https://doi.org/10.3389/fpsy.2023.1179257>
- Augsburger, M., Wenger, A., Haug, S., Achab, S., Khazaal, Y., Billieux, et al., (2020). The concept of buying-shopping disorder: comparing latent classes with a diagnostic approach for in-store and online shopping in a representative sample in Switzerland. *Journal of Behavioral Addictions*, 9(3), 808-817. <https://doi.org/10.1556/2006.2020.00051>

- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4), 644–656. <https://doi.org/10.1086/209376>
- Baggio, S., Starcevic, V., Billieux, J., King, D. L., Gainsbury, S. M., Eslick, G. D., et al. (2022). Testing the spectrum hypothesis of problematic online behaviors: a network analysis approach. *Addictive Behaviors*, 135, 107451. <https://doi.org/10.1016/j.addbeh.2022.107451>.
- Basu Monga, A. (2002). Brand as a relationship partner: gender differences in perspectives. In S. M., Broniarczyk & K. Nakamoto (Eds.), *Advances in Consumer Research*, Volume 29 (pp. 36-41). Valdosta: Association for Consumer Research.
- Beck, A. T. (1988). *Love is Never Enough*. New York: Harper & Row.
- Belk, R. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139–168. <https://doi.org/10.1086/209154>
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Billieux, J., Van Der Linden, M., & Rochat, L. (2008). The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology*, 22(9), 1195-1210. <https://doi.org/10.1002/acp.1429>
- Black, D. (2010). Compulsive buying: clinical aspects. In E. Aboujaoude & L. Koran (Eds.), *Impulse Control Disorders* (pp. 5-22). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511711930.002>
- Black, D. W. (2007). A review of compulsive buying disorder. *World Psychiatry: official journal of the World Psychiatric Association (WPA)*, 6(1), 14–18.
- Black, D. W., Repertinger, S., Gaffney, G. R., & Gabel, J. (1998). Family history and psychiatric comorbidity in person with compulsive buying. *American Journal of Psychiatry*, 155(7), 960-963. <https://doi.org/10.1176/ajp.155.7.960>
- Bleuler, E. (1930). *Textbook of psychiatry*. New York: Macmillan.
- Campbell, C. (2000). Shopaholics, spendaholics, and the question of gender. In A. Benson (Ed.), *I shop, therefore I am: compulsive buying and the search for self* (pp. 57-75). New York: Aronson.
- Cheema, A., & Soman, D. (2008). The effect of partitions on controlling consumption. *Journal of Marketing Research*, 45(6), 665-675. <https://doi.org/10.1509/jmkr.45.6.665>
- Ching, B. H. H., & Wu, X. (2018). Parental conflicts and materialism in adolescents: emotional insecurity as a mediator. *Journal of Adolescence*, 69(1), 189-202. <https://doi.org/10.1016/j.adolescence.2018.07.019>
- Chinomona, R. (2013). An empirical examination of the predictors of consumer compulsive buying as an "Impulse control disorder not otherwise specified": a branding perspective. *Journal of Applied Business Research*, 29(6), 1689–703. <https://doi.org/10.19030/jabr.v29i6.8207>
- Christenson, G. A., Faber, R. J., de Zwaan, M., Raymond, N. C., Specker, S. M., Ekern, M. D., Mackenzie, T. B., Crosby, R. D., Crow, S. J., & Eckert, E. D. (1994). Compulsive buying: descriptive characteristics and psychiatric comorbidity. *The Journal of clinical psychiatry*, 55(1), 5–11.
- Clark, L., & Zack, M. (2023). Engineered highs: reward variability and frequency as potential prerequisites of behavioural addiction. *Addictive Behaviors*, 140, 107626. <https://doi.org/10.1016/j.addbeh.2023.107626>
- Cooley, C. H. (1902), *Human Nature and the Social Order*. New York: Scribner's.
- Croissant, B., Klein, O., Löber, S., & Mann, K. (2009). A case of compulsive buying—impulse control disorder or dependence disorder? *Psychiatry Research*, 36(4):189-192. <https://doi.org/10.1055/s-2008-1067522>
- Cui, C. C., Mrad, M., & Hogg, M. K. (2018). Brand addiction: exploring the concept and its definition through an experiential lens. *Journal of Business Research*, 87, 118-127. <https://doi.org/10.1016/j.jbusres.2018.02.028>
- Damon, J. (1988). *Shopaholics: Serious help for addicted spenders*. Los Angeles: Price, Stern and Sloan.
- Das, G., Agarwal, J., Malhotra, N. K., & Varshneya, G. (2019). Does brand experience translate into brand commitment?: A mediated-moderation model of brand passion and perceived brand ethicality. *Journal of Business Research*, 95, 479-490. <https://doi.org/10.1016/j.jbusres.2018.05.026>
- d'Astous, A. (1990). An inquiry into the compulsive side of "normal" consumers. *Journal of Consumer Policy*, 13, 15-31. <https://doi.org/10.1007/BF00411867>
- De Graaf, J., Wann, D., & Naylor, T. H. (2005). *Affluenza: The a/l-consuming epidemic*. 2nd ed. San Francisco: Berrett-Koehler.
- Demetrovics, Z., & Griffiths, M. D. (2012). Behavioral addictions: past, present and future. *Journal of Behavioral Addictions*, 1, 1-2. <https://doi.org/10.1556/JBA.1.2012.1.0>
- DeSarbo, W. S., & Edwards, E. A. (1996). Typologies of compulsive buying behavior: a constrained clusterwise regression approach. *Journal of Consumer Psychology*, 5(3), 231-262. https://doi.org/10.1207/s15327663jcp0503_02
- Dittmar, H. (2005). Compulsive buying - a growing concern? An examination of gender, age and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96(4), 467-491. <https://doi.org/10.1348/000712605X53533>
- Dittmar, H., & Drury, J. (2000). Self-image - Is it in the bag? A qualitative comparison between "ordinary" and "excessive" consumers. *Journal of Economic Psychology*, 21(2), 106-145. [https://doi.org/10.1016/S0167-4870\(99\)00039-2](https://doi.org/10.1016/S0167-4870(99)00039-2)
- Dittmar, H., Long, K. & Meek, R. (2004). Buying on the internet: gender differences in on-line and conventional buying motivations. *Sex Roles*, 50, 423–444. <https://doi.org/10.1023/B:SERS.0000018896.35251.c7>
- Duh, H., & Thorsten, T. (2019). Preventing compulsive shopping among young South-Africans and Germans. *Young Consumers*, 20(1), 29-43. <https://doi.org/10.1108/YC-08-2018-0842>

- Eastman, J. K., Fredenberger, B., Campbell, D., & Calvert, S. (1997). The relationship between status consumption and materialism: a cross-cultural comparison of Chinese, Mexican, and American Student. *Journal of Marketing Theory and Practice*, 5(1), 52-66. <https://doi.org/10.1080/10696679.1997.11501750>
- Elhajjar, S., Kaskas, M., & Tlais, S. (2022). Investigating the causes and consequences of addiction to high-tech brands. *Technology Analysis & Strategic Management*, 34(8), 974-987. <https://doi.org/10.1080/09537325.2021.1934438>
- Elliott, R. (1994). Addictive consumption: function and fragmentation in postmodernity. *Journal of Consumer Policy*, 17, 159-179. <https://doi.org/10.1007/BF01016361>
- Elliott, R., Eccles, S., & Gournay, K. (1996). Revenge, existential choice, and addictive consumption. *Psychology & Marketing*, 13(8), 753-768. [https://doi.org/10.1002/\(SICI\)1520-6793\(199612\)13:8<753::AID-MAR3>3.0.CO;2-E](https://doi.org/10.1002/(SICI)1520-6793(199612)13:8<753::AID-MAR3>3.0.CO;2-E)
- Erdil, T. S. (2013). Strategic brand management based on sustainable-oriented view: an evaluation in Turkish home appliance industry. *Procedia-Social and Behavioral Sciences*, 99, 122-132. <https://doi.org/10.1016/j.sbspro.2013.10.478>
- Escalas, J. E. (2004). Narrative processing: building consumer connections to brands. *Journal of Consumer Psychology*, 14(1-2), 168-180. https://doi.org/10.1207/s15327663jcp1401&2_19
- Estévez, A., Jáuregui, P., Sánchez-Marcos, I., López-González, H., & Griffiths, M. D. (2017). Attachment and emotion regulation in substance addictions and behavioral addictions. *Journal of behavioral addictions*, 6(4), 534-544. <https://doi.org/10.1556/2006.6.2017.086>
- Faber, R. J., & Christenson, G. A. (1996). In the mood to buy: differences in the mood states experienced by compulsive buyers and other consumers. *Psychology & Marketing*, 13(8), 803-819. [https://doi.org/10.1002/\(SICI\)1520-6793\(199612\)13:8<803::AID-MAR6>3.0.CO;2-J](https://doi.org/10.1002/(SICI)1520-6793(199612)13:8<803::AID-MAR6>3.0.CO;2-J)
- Faber, R. J., & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research*, 19(3), 459-469. <https://doi.org/10.1086/209315>
- Faber, R. J., O'Guinn, T. C., & Krych, R. (1987). Compulsive consumption. In M. Wallendorf, & P. Anderson (Eds.), *Advances in consumer research* (Vol. 14) (pp. 132-135). Provo: Association for Consumer Research.
- Faber, R., Christenson, G., de Zwaan, M., & Mitchell, J. (1995). Two forms of compulsive consumption: comorbidity of compulsive buying and binge eating. *Journal of Consumer Research*, 22(3), 296-300. <https://doi.org/10.1086/209451>
- Fajer, M. T., & Schouten, J. W. (1995). Breakdown and dissolution of person-brand relationships. *Advances in Consumer Research*, 22(1), 663-667.
- Fehr, B., & Russell, J. A. (1991). The concept of love viewed from a prototype perspective. *Journal of Personality and Social Psychology*, 60(3), 425-443. <https://doi.org/10.1037/0022-3514.60.3.425>
- Fineberg, N. A., Menchon, J. M., Hall, N., Dell'Osso, B., Brand, M., Potenza, M. N., et al. (2022). Advances in problematic usage of the internet research - a narrative review by experts from the European network for problematic usage of the internet. *Comprehensive Psychiatry*, 118, 152346. <https://doi.org/10.1016/j.comppsy.2022.152346>
- Flores, P. J. (2004). *Addiction as an Attachment Disorder*. Oxford: Jason Aronson.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Fournier, S. (1998). Consumers and their brands: developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343-353. <https://doi.org/10.1086/209515>
- Fournier, S., & Alvarez, C. (2013). Relating badly to brands. *Journal of Consumer Psychology*, 23(2), 253-264. <https://doi.org/10.1016/j.jcps.2013.01.004>
- Francioni, B., Curina, I., Hegner, S. M., & Cioppi, M. (2021). Brand addiction: brand characteristics and psychological outcomes. *Journal of Consumer Marketing*, 38(2), 125-136. <https://doi.org/10.1108/JCM-02-2020-3678>
- Goldenson, R. M. (1984). *Longman dictionary of psychology and psychiatry*. New York: Longman.
- Goldsmith, R. E., Flynn, L. R. & Clark, R. A. (2012). Materialistic, brand engaged and status consuming consumers and clothing behaviors. *Journal of Fashion Marketing and Management*, 16(1), 102-119. <https://doi.org/10.1108/13612021211203050>
- Goldsmith, R. E., Flynn, L. R., & Clark, R. A. (2011). Materialism and brand engagement as shopping motivations. *Journal of Retailing and Consumer Services*, 18(4), 278-284. <https://doi.org/10.1016/j.jretconser.2011.02.001>
- Granero, F., Fernández-Aranda, T. Steward, G. Mestre-Bach, M. Baño, A., et al. (2016). Compulsive buying behavior: characteristics of comorbidity with gambling disorder. *Frontiers in Psychology*, 7, 625. <https://doi.org/10.3389/fpsyg.2016.00625>
- Guo, L., Liang, A., & Wang, Z. (2023). The psychology of shopping addiction in consumer behaviour. *Journal of Psychology Research*. 13(9). 425-435. <https://doi.org/10.17265/2159-5542/2023.09.004>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. 7th ed. Upper Saddle River: Pearson Prentice Hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2018). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Hair, J. F., Jr., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: rigorous applications, better results and higher acceptance. *International Journal of Strategic Management*, 46(1-2), 1-12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414-433. <https://doi.org/10.1007/s11747-011-0261-6>

- Hanley, A., & Wilhelm, M. S. (1992). Compulsive buying: An exploration into self-esteem and money attitudes. *Journal of Economic Psychology*, 13(1), 5-18. [https://doi.org/10.1016/0167-4870\(92\)90049-D](https://doi.org/10.1016/0167-4870(92)90049-D)
- Hassay, D. N., & Smith, M. C. (1996). Compulsive buying: an examination of the consumption motive. *Psychology & Marketing*, 13(8), 741-752. [https://doi.org/10.1002/\(SICI\)1520-6793\(199612\)13:8<741::AID-MAR2>3.0.CO;2-F](https://doi.org/10.1002/(SICI)1520-6793(199612)13:8<741::AID-MAR2>3.0.CO;2-F)
- Hirschman, E. C. (1992). The consciousness of addiction: toward a general theory of compulsive consumption. *Journal of Consumer Research*, 19(2), 155-179. <https://doi.org/10.1086/209294>
- Hoegg, J., Scott, M. L., Morales, A. C., & Dahl, D. W. (2014). The flip side of vanity sizing: how consumers respond to and compensate for larger than expected clothing sizes. *Journal of Consumer Psychology*, 24(1), 70-78. <https://doi.org/10.1016/j.jcps.2013.07.003>
- Horváth, C., & Adigüzel, F. (2018). Shopping enjoyment to the extreme: hedonic shopping motivations and compulsive buying in developed and emerging markets. *Journal of Business Research*, 86, 300-310. <https://doi.org/10.1016/j.jbusres.2017.07.013>
- Horváth, C., & Birgelen, M. V. (2015). The role of brands in the behavior and purchase decisions of compulsive versus noncompulsive buyers. *European Journal of Marketing*, 49(1/2), 2-21. <https://doi.org/10.1108/EJM-10-2012-0627>
- Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Huang, C-H. (2021). Using PLS-SEM model to explore the influencing factors of learning satisfaction in blended learning. *Education Sciences*, 11(5), 249. <https://doi.org/10.3390/educsci11050249>
- Huber, F., Eisele, A., & Meyer, F. (2018). The role of actual, ideal, and ought self-congruence in the consumption of hedonic versus utilitarian brands. *Psychology & Marketing*, 35(1), 47-63. <https://doi.org/10.1002/mar.21070>
- James, W. (1890). *The principles of psychology, Vol 1*. New York: Henry Holt and Co. <https://doi.org/10.1037/10538-000>
- Japutra, A., Ekinci, Y., & Simkin, L. (2019). Self-congruence, brand attachment and compulsive buying. *Journal of Business Research*, 99, 456-463. <https://doi.org/10.1016/j.jbusres.2017.08.024>
- Johnson, T., & Attmann, J. (2009). Compulsive buying in a product specific context: clothing. *Journal of Fashion Marketing and Management: An International Journal*, 13(3), 394-405. <https://doi.org/10.1108/13612020910974519>
- Kaur, M., Maheshwari, S. K., & Kumar, A. (2019). Compulsive buying behavior and online shopping addiction among health science teachers. *International Journal of Nursing Care*, 7(1), 74-80. <https://doi.org/10.5958/2320-8651.2019.00014.0>
- Kesebir, S., İşıtmez, S., & Gündoğar, D. (2012). Compulsive buying in bipolar disorder: Is it a comorbidity or a complication?. *Journal of Affective Disorders*, 136(3), 797-802. <https://doi.org/10.1016/j.jad.2011.09.037>
- Koran, L. M., & Aboujaoude, E. (2010) *Impulsive Control Disorders*. Cambridge: Cambridge University Press.
- Kottler, J., Montgomery, M., & Shepard, D. (2004). Acquisitive desire: assessment and treatment. In T. Kasser & A. D. Kanner (Eds.), *Psychology and Consumer Culture: The Struggle for a Good Life in a Materialistic World* (pp. 149-168), Washington: American Psychological Association.
- Kraemer, H. C., Stice, E., Kazdin, A., Offord, D., & Kupfer, D. (2001). How do risk factors work together? Mediators, moderators, and independent, overlapping, and proxy risk factors. *American Journal of Psychiatry*, 158(6), 848-856. <https://doi.org/10.1176/appi.ajp.158.6.848>
- Kraepelin, E. (1915). *Psychiatrie*. 8th ed. Leipzig: Barth.
- Krueger, D. W. (1988). On compulsive shopping and spending: a psychodynamic inquiry. *American journal of psychotherapy*, 42(4), 574-584. <https://doi.org/10.1176/appi.psychotherapy.1988.42.4.574>
- Kukar-Kinney, M. M., Ridgway, N., & Monroe, K. B. (2012). The role of price in the behavior and purchase decisions of compulsive buyers. *Journal of Retailing*, 88(1), 63-71. <https://doi.org/10.1016/j.jretai.2011.02.004>
- Kukar-Kinney, M., Scheinbaum, A. C., & Schaefers, T. (2016). Compulsive buying in online daily deal settings: an investigation of motivations and contextual elements. *Journal of Business Research*, 69(2), 691-699. <https://doi.org/10.1016/j.jbusres.2015.08.021>
- Kwak, H., Zinkhan, G. M., & Lester Roushanzamir, E. P. (2004). Compulsive comorbidity and its psychological antecedents: a cross-cultural comparison between the US and South Korea. *Journal of Consumer Marketing*, 21(6), 418-434. <https://doi.org/10.1108/07363760410558681>
- Le, M. T. H. (2020). Social comparison effects on brand addiction: a mediating role of materialism. *Heliyon*, 6(11), e05460. <https://doi.org/10.1016/j.heliyon.2020.e05460>
- Lavuri, R., & Thaichon, P. (2023). "Do extrinsic factors encourage shoppers' compulsive buying? Store environment and product characteristics". *Marketing Intelligence & Planning*, 41(6), 722-740. <https://doi.org/10.1108/MIP-03-2023-0097>
- Malär, L., Krohmer, H., Hoyer, W. D., & Nyffenegger, B. (2011). Emotional brand attachment and brand personality: the relative importance of the actual and the ideal self. *Journal of Marketing*, 75(4), 35-52. <https://doi.org/10.1509/jmkq.75.4.35>
- Maraz, A., Eisinger, A., Hende, B., Urbán, R., Paksi, B., Kun, B., Kökönyei, G., Griffiths, M. D., & Demetrovics, Z. (2015). Measuring compulsive buying behaviour: psychometric validity of three different scales and prevalence in the general population and in shopping centres. *Psychiatry Research*, 225(3), 326-334. <https://doi.org/10.1016/j.psychres.2014.11.080>
- Martinez-Novoa, L. M., & Hodges, N. N. (2016). Beyond shopaholism: a socio-cultural examination of compulsive clothing buying behavior. *International Textile and Apparel Association Annual Conference Proceedings, USA*, 73(1), 379-384. https://doi.org/10.31274/itaa_proceedings-180814-1412

- McElroy, S. L., Keck, P. E., Jr, Pope, H. G., Jr, Smith, J. M., & Strakowski, S. M. (1994). Compulsive buying: a report of 20 cases. *The Journal of clinical psychiatry*, 55(6), 242–248.
- McElroy, S. L., Satlin, A., Pope, H. G., Keck, P. E., & Hudson, J. I. (1991). Treatment of compulsive shopping with antidepressants: a report of three cases. *Annals of Clinical Psychiatry*, 3(3), 199–204. <https://doi.org/10.3109/10401239109147991>
- Mert, M., & Tengilimoğlu, D. (2023). The mediating role of FoMO and the moderating role of narcissism in the impact of social exclusion on compulsive buying: a cross-cultural study. *Psicologia: Reflexão e Crítica*, 36, 33. <https://doi.org/10.1186/s41155-023-00274-y>
- Mestre-Bach, G., Steward, T., Jiménez-Murcia, S., & Fernández-Aranda, F. (2017). Differences and similarities between compulsive buying and other addictive behaviors. *Current Addiction Reports*, 4(3), 228–236. <https://doi.org/10.1007/s40429-017-0153-z>
- Moon, M. A., Faheem, S., & Farooq, A. (2022). I, me, and my everything: self-conceptual traits and compulsive buying behavior. *Journal of Retailing and Consumer Services*, 68(C), 103075. <https://doi.org/10.1016/j.jretconser.2022.103075>
- Mrad, M. (2018). Brand addiction conceptual development. *Qualitative Market Research: An International Journal*, 21(1), 18–38. <https://doi.org/10.1108/QMR-06-2016-0050>
- Mrad, M., & Cui, C. C. (2020). Comorbidity of compulsive buying and brand addiction: an examination of two types of addictive consumption. *Journal of Business Research*, 113(4), 399–408. <https://doi.org/10.1016/j.jbusres.2019.09.023>
- Mrad, M., & Cui, C. C. (2017). Brand addiction: Conceptualization and scale development. *European Journal of Marketing*, 51(11/12), 1938–1960. <https://doi.org/10.1108/EJM-10-2016-0571>
- Mueller, J. E. Mitchell, L. A. Peterson, R. J. Faber, K. J. Steffen, R. D., et al. (2011). Depression, materialism, and excessive internet use in relation to compulsive buying. *Comprehensive Psychiatry*, 52(4), 420–424. <https://doi.org/10.1016/j.comppsy.2010.09.001>
- Mueller, U., Mueller, A., Silbermann, H., Reinecker, S., Bleich, J.E., et al., (2008). A randomized, controlled trial of group cognitive-behavioral therapy for compulsive buying disorder: posttreatment and 6-month follow-up results. *The Journal of Clinical Psychiatry*, 69(7), 1131–1138. <https://doi.org/10.4088/JCP.v69n0713>
- Müller, A., Brand, M., Claes, L., Demetrovics, Z., de Zwaan, M., Fernández-Aranda, F., et al. (2019). Buying-shopping disorder-is there enough evidence to support its inclusion in ICD-11?. *CNS Spectrums*, 24(4), 374–379. <https://doi.org/10.1017/S1092852918001323>
- Müller, A., Mitchell, J.E., & de Zwaan, M. (2015). Compulsive buying. *The American Journal on Addictions*, 24(2), 132–137. <https://doi.org/10.1111/ajad.12111>
- Myers, D. G. (2000). The Funds, Friends, and Faith of Happy People. *American Psychologist*, 55(1), 56–67. <https://doi.org/10.1037/0003-066X.55.1.56>
- Nanda, A. P., Banerji, D., & Singh, N. (2023). Situational factors of compulsive buying and the well-being outcomes: what we know and what we need to know. *Journal of Macromarketing*, 43(3), 384–402. <https://doi.org/10.1177/02761467231180091>
- Nielsen. (2016). “Global online consumer confidence”, *Concerns, and Spending Intentions*. New York City, NY: SAD.
- Nunnally, J. C. (1978). *Psychometric Theory*. 2nd ed. New York: McGraw-Hill.
- O’Guinn, T. C. & Faber, R. J. (1989). Compulsive buying: a phenomenological exploration. *Journal of Consumer Research*, 16 (2), 147–157. <https://doi.org/10.1086/209204>
- Olsen, S. O., Khoi, N. H., & Tuu, H. H. (2022). The ‘well-being’ and ‘ill-being’ of online impulsive and compulsive buying on life satisfaction: the role of self-esteem and harmony in life. *Journal of Macromarketing*, 42(1), 128–145. <https://doi.org/10.1177/0276146721104>
- Otero-López, J. M. (2022). What do we know when we know a compulsive buying person? Looking at now and ahead. *International journal of environmental research and public health*, 19(18), 11232. <https://doi.org/10.3390/ijerph191811232>
- Palan, K. M., Morrow, P. C., & Trapp, A. (2011). Compulsive buying behavior in college students: the mediating role of credit card misuse. *The Journal of Marketing Theory and Practice*, 19(1): 81–96. <https://doi.org/10.2753/MTP1069-6679190105>
- Prawitz, A., Garman, E. T., Sorhaindo, B., O’Neill, B., Kim, J., & Drentea, P. (2006). InCharge Financial Distress/Financial Well-Being Scale: development, administration, and score interpretation. *Journal of Financial Counseling and Planning*, 17(1), 34–50. <https://doi.org/10.1037/t60365-000>
- Reimann, M., Castaño, R., Zaichkowsky, J., & Bechara, A. (2012). How we relate to brands: psychological and neurophysiological insights into consumer–brand relationships. *Journal of Consumer Psychology*, 22(1), 128–142. <https://doi.org/10.1016/j.jcps.2011.11.003>
- Ridgway, N. M., Kukar-Kinney, M., & Monroe, K. B. (2008). An expanded conceptualization and a new measure of compulsive buying. *Journal of Consumer Research*, 35(4), 622–639. <https://doi.org/10.1086/591108>
- Ridgway, N., Kukar-Kinney, M., & Monroe, K. (2006). New perspectives on compulsive buying: its roots, measurement and physiology. In: C. Pechmann, & L. Price (Eds.), *Advances in consumer research*, vol. 33 (pp. 131–133). San Antonio: Association for Consumer Research.
- Riquelme, I., Roman, S., Cuestas-Díaz, P. J., & Iacobucci, D. (2019). The dark side of good reputation and loyalty in online retailing: when trust leads to retaliation through price unfairness. *Journal of Interactive Marketing*, 47, 35–52. <http://dx.doi.org/10.2139/ssrn.3425986>
- Rizzo, C., Sestino, A., Pino, G., Guido, G., Natarajan, R., & Harnish, R. J. (2023). A hierarchical personality approach toward a fuller understanding of onychophagia and compulsive buying. *Psychological Reports*, 126(3), 1322–1338. <https://doi.org/10.1177/00332941211061696>

- Roberts, J. (1998). Compulsive buying among college students: an investigation of its antecedents, consequences, and implications for public policy. *Journal of Consumer Affairs*, 32(2), 295–319. <https://doi.org/10.1111/j.1745-6606.1998.tb00411.x>
- Roberts, J., & Manolis, C. (2000). Baby boomers and busters: an exploratory investigation of attitudes toward marketing, advertising, and consumerism. *Journal of Consumer Marketing*, 17(6), 481–97. <https://doi.org/10.1108/07363760010349911>
- Rook, D.W. (1987). The buying impulse. *Journal of Consumer Research*, 14(2), 189–199. <https://doi.org/10.1086/209105>
- Rosen, J. C., & Gross, J. (1987). Prevalence of weight reducing and weight gain in adolescent girls and boys. *Health Psychology*, 6(2), 131–147. <https://doi.org/10.1037/0278-6133.6.2.131>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Sarstedt, M., Hair, J. F., Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal*, 27(3), 197–211. <https://doi.org/10.1016/j.ausmj.2019.05.003>
- Sârghie, M. M. P. (2021). Using social marketing to tackle compulsive buying. *Social Marketing Quarterly*, 27(1), 3–12. <https://doi.org/10.1177/1524500420988263>
- Scherhon, C. (1990). The addictive trait in buying behavior. *Journal of Consumer Policy*, 13(1), 33–51. <https://doi.org/10.1007/BF00411868>
- Schlosser, S., Black, D. W., Repertinger, S., & Freet, D. (1994). Compulsive buying. Demography, phenomenology, and comorbidity in 46 subjects. *General hospital psychiatry*, 16(3), 205–212. [https://doi.org/10.1016/0163-8343\(94\)90103-1](https://doi.org/10.1016/0163-8343(94)90103-1)
- Shahjehan, A., Qureshi, J. A., Zeb, F., & Saifullah, K. (2012). The effect of personality on impulsive and compulsive buying behaviors. *African Journal of business management*, 6(6), 2187–94. <https://doi.org/10.5897/AJBM11.2275>
- Shoham, A., & Brenčić, M. M. (2003). Compulsive buying behavior. *Journal of Consumer Marketing*, 20(2), 127–138. <https://doi.org/10.1108/07363760310464596>
- Shulman, T. (2015). *Shopaholics anonymous*. Retrieved May, 15, 2023 from: <http://www.shopaholicsanonymous.org/>
- Sirgy, M. J., Lee, D. J., & Yu, G. B. (2020). Shopping-life balance: towards a unifying framework. *Applied Research in Quality of Life*, 15(1), 17–34. <https://doi.org/10.1007/s11482-018-9662-8>
- Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, 93(2), 119–135. <https://doi.org/10.1037/0033-295X.93.2.119>
- Tarka, P., Kukar-Kinney, M., & Harnish, R. J. (2022). Consumers' personality and compulsive buying behavior: the role of hedonistic shopping experiences and gender in mediating-moderating relationships. *Journal of Retailing and Consumer Services*, 64, 102802. <https://doi.org/10.1016/j.jretconser.2021.102802>
- Tarka, P., Harnish, R. J., & Babaev, J. (2022). Hedonism, hedonistic shopping experiences and compulsive buying tendency: A demographics-based model approach. *Journal of Marketing Theory and Practice*, 31(2), 197–222. <https://doi.org/10.1080/10696679.2022.2026791>
- Weinstein, A., Maraz, A., Griffiths, M. D., Lejoureux, M., & Demetrovics, Z. (2016). Chapter 98 - Compulsive buying – features and characteristics of addiction. In V. R. Preedy (Ed.), *Neuropathology of drug addictions and substance misuse* (pp. 993–1007). Cambridge: Academic Press. <https://doi.org/10.1016/B978-0-12-800634-4.00098-6>
- Wood, J. T. (2000). Gender and personal relationships. In C. Hendrick & Hendrick, S. S. (Eds.), *Close Relationships-A Source Book* (pp. 301–313). Thousand Oaks: Sage Publications.
- Workman, L., & Paper, D. (2010). Compulsive buying: a theoretical framework. *Journal of Business Inquiry*, 9(1), 89–126.
- Yamane, T., & Kaneko, S. (2021). Is the younger generation a driving force toward achieving sustainable development goals? Survey experiments. *Journal of Cleaner Production*, 292, 125932. <https://doi.org/10.1016/j.jclepro.2021.125932>
- Yurchisin, J., & Johnson, K. K. (2004). Compulsive buying behavior and its relationship to perceived social status associated with buying, materialism, self-esteem, and apparel-product involvement. *Family and Consumer Sciences Research Journal*, 32(3), 291–314. <https://doi.org/10.1177/1077727X03261178>
- Varadarajan, R. (2015). Strategic marketing, marketing strategy and market strategy. *AMS Review*, 5, 78–90. <https://doi.org/10.1007/s13162-015-0073-9>
- Zadka, Ł., & Olajossy, M. (2016). Compulsive buying in outline. *Psychiatria Polska*, 50(1), 153–164. <https://doi.org/10.12740/PP/44010>
- Zarate, D., Fullwood, L., Prokofieva, M., Griffiths, M. D., & Stavropoulos, V. (2023). Problematic shopping behavior: an item response theory examination of the seven-item Bergen shopping addiction scale. *International Journal of Mental Health and Addiction*, 21, 4108–4126. <https://doi.org/10.1007/s11469-022-00844-8>
- Zhao, X., Lynch, J. G., Chen, Q., Jr. (2010). Reconsidering Baron and Kenny: myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>

✉ Correspondence

Adi Alić

University of Sarajevo, School of Economics and Business,
Sarajevo, Bosnia and Herzegovina
Trg oslobođenja - Alija Izetbegović 1, 71000 Sarajevo, Bosnia
and Herzegovina

E-mail: adi.alic@efsa.unsa.ba