

## **Investigating the Causes and Consequences of Brand Addiction: Case of High-Tech Brands**

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### **Abstract**

The purpose of this research is to investigate the causes and consequences of high-tech brands. We surveyed 360 customers in Lebanon on the factors that might lead to brand addiction. The results show that brand love, brand liking, brand attachment, and brand passion have a positive impact on brand addiction. Also, our study reveals that addiction to high-tech brands has a positive impact on life happiness and self-esteem. This research offers new contributions in the research of brand addiction.

**Keywords:** Brand Addiction; High-Tech Brands; Addiction; Consumer-Brand Relationship; Consumer Well-Being.

## Introduction

The growth of consumer-brand relationships has been a significant focus of branding theory in the latest years (Khamitov *et al.*, 2019). The brand is considered a tool that brings together both consumers and sellers in a long-term consumer-brand relationship through brand-related communications (Chang and Chieng, 2006). The relationships among brands and consumers are unique and can result in strong and positive consequences for both entities (Mena *et al.*, 2019). Consumers tend to build relationships with brands and treat them as partners. Brands now achieve more meaning and value to consumers as they are now perceived as real human partners (Hunt, 2019). Research shows that when consumers form deep connections with certain brands and consider them as self-expressive, the relationship is strengthened and is transformed from satisfaction to love (Unal and Aydin, 2013). Thus, when consumers grow solid connections with certain brands that perfectly signify who they are, the brand passion starts to develop (Belk and Tumbat, 2005). These consumer-brand relationships may increase in intensity to reach certain levels of addiction (Fournier, 1998).

Previous studies aimed to understand the concept of brand addiction and develop a scale to measure it (Mrad and Cui, 2017). However, all these studies lacked one main point, which is understanding what leads to brand addiction and how brand addiction affects life happiness and self-esteem. This research aims to develop a comprehensive understanding of the concept of high-technology brand addiction, its causes, and its effects. More precisely, we seek to study the concept of brand addiction to high-tech brands. Nowadays, the psychopathological terminology of addiction to high-tech brands is a hot topic. Many press articles are flourishing on the subject; quantitative studies now measure how many people declare themselves dependent on high-tech brands. Over-dependence on high technology can influence people's lives and behaviors. Even though people need technology to survive in a social world, a severe overreliance on any type of technology can ease immersion, which enables a person to become so intensively involved in an activity that nothing else seems to matter (Roberts and Pirog, 2013). According to Turel *et al.* (2011), the addict has to use the technology to an extent that produces thrill. The technology offers the user a feeling of relief and pleasure that causes mood changes (Turel *et al.*, 2011). Since the experience itself is fascinating, a person will do it even at a great personal cost, such as whiling away an entire Sunday afternoon browsing items related to high technology brands (Kakabadse *et al.*, 2007).

Our paper is organized as follows: first, we explore the literature on brand addiction. Second, we describe the research method used in our study. Third, we summarize and discuss our research results. Finally, we develop the implications and note some limitations and potential avenues for further research.

## Literature Review

### *Brand Addiction*

Consumer-brand relationships have been almost every brand's interest since the late nineties of the 20<sup>th</sup> century (Loureiro, 2012). Organizations are now becoming more interested in understanding how consumers relate to brands and what makes certain brands preferred over others in the industry (Loureiro, 2012). Shimp and Madden (1988) were amongst the first researchers to introduce the concept of consumer-brand relationships in their paper focusing on consumer-object relations (CORs) using Sternberg's triangular theory of love (1986). Sternberg's (1986) theory discusses the interrelation among three necessary components of love: intimacy, passion, and decision/commitment. Intimacy in CORs is more likely to be labeled as "liking." The liking component refers to feelings such as attachment and fondness

as well as the attributes Sternberg gave to intimacy, such as closeness, connectedness, and bondedness (Shimp and Madden, 1988). Inevitably, consumers feel close and connected to objects they have been consuming throughout their lives (Shimp and Madden, 1988). Passion is another component of Sternberg's triangle that includes notions that are strictly related to person-person relations (PPRs). However, in Sternberg's theory, certain components can also be applicable to CORs (Shimp and Madden, 1988). These components include self-esteem, succorance, nurturance, affiliation, dominance, submission, and self-actualization (Sternberg, 1986). When applying things to CORs, the component "yearning" can be referred to as the substitute for passion (Shimp and Madden, 1988). The last component of Sternberg's triangle is the decision/commitment component which develops when a consumer likes a certain brand or product because of its attributes that are closely related to what she/he is looking for. In the long term, consumers become committed to the brand as a matter of loyalty, inertia, or other factors that lead to purchasing from that brand again (Shimp and Madden, 1988).

Fournier (1998) developed a framework to examine the relationships consumers form with brands they know and use. Fournier argues that consumer-brand relationships are valid at the level of real-life experiences and can be specified in many ways using a rich conceptual vocabulary that is both theoretically and managerially useful. Fournier also proposes the Brand Relationship Quality (BRQ) construct that explains there is more to keeping a relationship going than the pull of positive feelings; it focuses on different relationship dimensions such as love/passion, brand partner quality, intimacy, interdependence, commitment, and self-connection (Fournier, 1998). The first dimension, which includes "love and passion," is the core of any strong consumer-brand relationship since it represents adoration, fondness, and even obsessiveness. Carroll and Ahuvia (2006) define brand love as *"the degree of passionate emotional attachment a satisfied consumer has for a particular trade name."* They also state that brand love includes a will to proclaim love to the brand as if it was a person and involves the incorporation of the brand into the consumer's identity (Carroll and Ahuvia, 2006). Therefore, brands that help more in shaping the consumer's identity experience more consumer love than other brands (Loureiro, 2012). Also, consumers view a brand as being self-expressive if it enhances the social self or reflects the inner self (Carroll and Ahuvia, 2006). The second dimension, "self-connection," represents how consumers connect and associate themselves with certain brands and the extent to which they have incorporated the brand into their self-concept (Loureiro, 2012). Self-connection also embodies the extent to which brands deliver on important identity concerns, tasks, or themes (Fournier, 1998). The third dimension, "interdependence," is related to being involved in a brand's activities since a strong brand relationship involves frequent interactions with a certain brand. The fourth dimension, "commitment," reflects the intention to sustain a relationship and remain faithful to it to ensure the longevity of the relationship. The fifth dimension, "intimacy," refers to the elaborate knowledge structures and beliefs that lead the brand to be superior over the competitors. Finally, the brand partner quality dimension identifies the overall relationship satisfaction and strength by studying the performance of a brand and seeing whether or not it is living up to its role in the eyes of its consumers. It also includes judging the brand's overall dependability, reliability, predictability, and adherence to rules as well as evaluating the level of trust in a brand's actions (Fournier, 1998). Fournier (1998) believes that the six facets discussed can be regrouped into three main dimensions: attachment (love/passion and self-connection), behavioral ties (interdependence and commitment), and supportive cognitive beliefs (intimacy and brand partner quality).

Park *et al.* (2010) suggest that brand attachment is the ultimate destination for customer-brand relationships. Brand attachment is thus considered the strength of the bond between a certain brand and the self, and it includes two important factors that reflect its conceptual properties,

which are “*brand-self connection and brand prominence*” (Park *et al.*, 2010). When a brand is categorized as being part of the self, a consumer develops a sense of oneness and connectedness with that brand (Park *et al.*, 2010). In other words, consumers connect to brands that represent who they are in a certain way. In addition to brand-self connection, positive feelings and thoughts about a certain brand and the extent to which it is thought of first are also indicators of attachment. Brand prominence occurs when brand-related thoughts and feelings become part of a consumer’s memory and are easily brought to mind (Park *et al.*, 2010). Hence, if a consumer has self-connection with two different brands, he/she is more attached to the brand that is considered to be more prominent to him/her. In conclusion, brand-self connection is a core element of attachment because it directly reflects the definition of attachment as being the bond connecting a person with a certain brand.

Consumer-brand relationships include emotions that range from non-intense feelings to passionate love, leading to high levels of addictive obsession (Cui *et al.*, 2018). Fournier (1998) also suggest that consumer-brand relationships may spread in intensity to reach the level of addiction. Moreover, a neurophysiological study (Reiman *et al.*, 2012) shows that close consumer-brand relationships may lead to brand addiction since strong consumer-brand relationships are linked with activating an individual’s brain area recognized as the insula. Stimulating the insula is accountable for addictive behaviors such as alcohol addiction (Myrick *et al.*, 2004) and nicotine addiction (McClernon *et al.*, 2005). Indeed, addictions should be understood in areas beyond substance abuse (Martin *et al.*, 2013) as “*any source which is capable of stimulating a person*” (Alavi *et al.*, 2012, p. 291).

While there are some similarities between brand addiction, brand love, and brand loyalty, Cui *et al.* (2018) found enough evidence that brand addiction is a different concept and has different features from other consumer-brand relationship concepts. Brand addiction is viewed as similar to the general concept of addiction (Fournier, 1998), and shares similar characteristics of behavioral addiction (Goodman, 1990; Sussman and Sussman, 2011). Brand addiction is a non-drug-related type of addiction that can be characterized as an extreme form of behavior. Brand addiction is considered a consumer’s psychological state that relates to a self-brand relationship established in everyday life and includes emotions of affectivity and satisfaction with a specific brand and constant needs for possessing the brand’s products or services (Corbett and Connors, 1999). Mrad and Cui (2017) were the first researchers to develop a scale to measure brand addiction (BASCALE). BASCALE is a ten-item scale that can be used to detect consumers who are addicted to certain brands (Mrad and Cui, 2017). Cui *et al.* (2018) define brand addiction as “*a consumer’s psychological state that involves a mental and behavioral preoccupation with a particular brand, driven by uncontrollable urges to possess the brand’s products, and involving positive affectivity and gratification.*” This definition helps in differentiating brand addicts and in avoiding oversimplification of this behavior. For example, if someone experiences some standard signs for being a brand addict but does not overspend or have other harmful outcomes, he/she can still be considered a brand addict.

One type of non-drug-related addiction is technology addiction, which can be defined as frequent and obsessive technology-related behavior that is progressively practiced, regardless of the negative impact that might occur towards the user of a specific technology. Over-dependence on high technology can influence people’s lives and behaviors. High technology products influence the pleasure systems of the brain in ways similar to drug usage (Alter, 2017). They deliver the same reward that alcohol and other drugs might cause, such as sleeping disorders like staying up all night to play with technology. As a result, athletic, academic, and social performance can be at stake. Even though the guidelines of what leads to technology addiction are somewhat vague, the concern itself is still growing (Kim, 2018). Literature shows

how high-tech brands manage to connect with customers in a way that has to expand beyond emotional attachment (Lewis, 2014). To achieve this connectivity, a brand generates a solid psychological and emotional response that works on customers' subconscious level in a way that is not easily understood or recognized by buyers. Many research studies in the area of neuroscience have found when individuals encounter an outstanding experience, their brains issue many chemicals (Lewis, 2014). Dopamine is one of the chemicals that leads to feelings of euphoria, self-satisfaction, and well-being, and this can lead to addiction. This is why high-tech brands concentrate on the mind connection or neurological connectivity rather than the physical or practical connection of products or services with customers. High-tech brands aim to build deep connections with consumers by creating consumer-friendly and innovative technology products (Lewis, 2014). Also, high-tech brands generate prelaunch enthusiasm for their products through exciting announcements. This happens without revealing any details regarding the product, which helps the company creatively stimulate fans' expectations. Hence, high-tech brands' neurological connectivity succeeds to the maximum by satisfying all of the six major consumer-value shifts: demand for experience, customization/personalization, affordable luxury, endless streams of new products, community-like lifestyles, and technology inserted in people's everyday lives (Lewis, 2014).

### ***Brand Addiction and Self-esteem***

Rosenberg *et al.* (1995) state that a person's psychological well-being is best anticipated by his/her global self-esteem which is how individuals see and evaluate themselves. Moreover, global self-esteem is strongly related to psychological well-being causes such as depression, anxiety, irritability, life satisfaction, and happiness (Rosenberg *et al.*, 1995). Mrad and Cui (2017) confirm that brand addiction is positively related to appearance esteem, which is considered a subdivision of self-esteem (Vamos, 1993). Self-esteem is defined as an individual's overall evaluation of self-worth (Rosenberg, 1986). Appearance esteem is also the responsiveness of self-worth, which an individual develops from the physical appearance (Argo and White, 2012; Pierce and Wardle, 1997). Therefore, consumers might "*addictively get involved in the consumption of products from certain brands as a way to enhance their self-esteem through their appearance*" (Mrad and Cui, 2017). It is also stated that consumers are motivated to buy products from brands that represent their self-image or that allow them to portray their idea of the ideal-self (Hanley and Wilhelm, 1992). Also, since consumers are affected by their previous experiences and memories with certain brands, they might choose a brand continuously and get attached to it to sustain their self-esteem (Mrad and Cui, 2019).

### ***Brand Addiction and Life-Happiness***

According to Pavot *et al.* (1991), life happiness is the overall assessment of an individual's life. Fournier (1998) states that relationships between consumers and brands are comparable to relationships between people. Life happiness that people experience due to their happy relationships with other people can also be mirrored in the concept of consumer-brand relationships. Mrad and Cui's (2017) study suggests that consumers who are addicted to certain fashion brands experience happiness through consumption or the possession of that brand's products. This is compatible with Richins *et al.*'s (1992) conclusion that suggests ownership of goods enhances wellbeing. Moreover, since life happiness is also considered a part of subjective well-being (Andrews and Withey, 1976), it is predicted that purchasing and possessing products of a certain brand to which consumers are addicted to may improve their life happiness (Mrad and Cui, 2019). Furthermore, Elliott *et al.* (1996) mention that consumers get involved in addiction to improve their mood, making them feel pleased and able to handle their lives. This might be the case of certain consumers who get addicted to brands, and then

their experience of addiction to that brand leads them to endure more life happiness (Mrad and Cui, 2019). Thus, brand addiction can be a manifestation of the three main components in the attachment-aversion relationship, also known as the AA relationship model: enticing the self, enabling the self, and enriching the self (Fournier and Alvarez, 2013), all of which are likely to increase life happiness.

## Research Model

To study the concept of brand addiction, we developed a model to help better understand the relationships between our dependent and independent variables and came up with a conclusion that includes an in-depth examination of the causes of brand addiction and its impact on life happiness and self-esteem.

Belaid and Behi (2011) state that when consumers establish a level of trust with a certain brand, their view of the relationship that binds them with that brand goes beyond their satisfaction with that brand's functional performance. Bidmon (2016) mentions that having a brand trust can lead to establishing an emotional connection with a brand. Previous research found that the relationship between brand trust and brand addiction is positive and that building trust in a brand may lead consumers to being addicted to that brand (Mrad and Cui, 2017). Therefore, we would like to test more deeply whether trust in high-tech brands causes brand addiction.

**H1:** Trust in high-tech brands has a positive impact on brand addiction.

Consumer brand relationships may grow in intensity to reach passionate love, which can lead to high points of addictive obsession (Cui *et al.*, 2018). Love and passion embody different emotions, one of which is obsessiveness (Fournier, 1998). The term "technology addiction" may also signify frequent and obsessive use of technology products. Therefore, since love consists of emotions such as obsession, it may lead to addiction. So, we hypothesize the following:

**H2:** Love towards high-tech brands has a positive impact on brand addiction.

Brand loyalty leads consumers to establish emotional connections with certain brands (Bidmon, 2016). This means that consumers' loyalty toward a brand leads consumers to be committed to that brand (Shimp and Madden, 1988). We wanted to test whether this commitment can further develop to reach addiction towards a certain brand. So, we hypothesize the following:

**H3:** Loyalty towards high-tech brands has a positive impact on brand addiction.

Intimacy in Sternberg's (1986) theory of love is also referred to as "liking." Liking includes emotions such as attachment, affection, connectedness, and bondedness (Shimp and Madden, 1988). Also, if consumers use a certain brand constantly throughout their lives, they will automatically feel closer and more connected to that brand. Therefore, since the term "brand liking" includes such strong emotions and brings consumers closer to the brand, this relationship might develop further into addiction. So, we hypothesize the following:

**H4:** Liking towards high-tech brands has a positive impact on brand addiction.

Brand attachment includes a core element which is "brand-self connection", which reflects the bond that connects a person to a certain brand (Park *et al.*, 2010). Therefore, when a brand is considered as being part of the self, a consumer is likely to be more connected and attached to that brand. Moreover, when consumers get attached to a certain brand, this brand will

ultimately have a personal meaning to them and will represent who they are as individuals. This type of strong consumer-brand relationship led us to develop this hypothesis to test whether attachment to high-tech brands can lead to brand addiction.

**H5:** Attachment to high-tech brands has a positive impact on brand addiction.

The term “passion” is usually related to person-person relationships. Sternberg (1986), however, mentions certain components that can apply to consumer-object relationships as well. These components include self-esteem, affiliation, submission, self-actualization, and others (Sternberg, 1986). Moreover, since passion also has an impact on a person’s self-esteem and self-actualization, it can be tied to the attachment. So, we hypothesize the following:

**H6:** Passion toward high-tech brands has a positive impact on brand addiction.

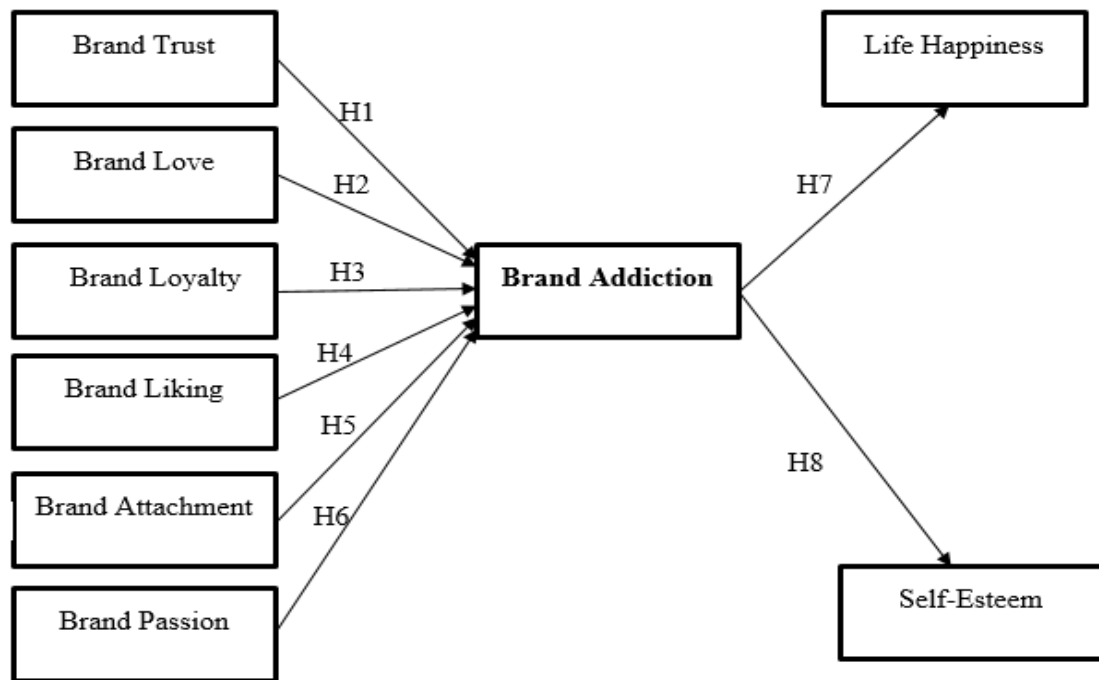
Fournier (1998) explains that true life happiness can be the result of people having strong and happy relationships with other people. Fournier mentions that the concept of life happiness can be mirrored in the concept of consumer-brand relationships. Moreover, life happiness usually affects and reflects a person’s subjective well-being (Andrews and Withey, 1976). Therefore, it is expected that buying and owning products of a certain brand to which consumers are addicted to may enhance their overall life happiness (Mrad and Cui, 2019). So, we hypothesize the following:

**H7:** Addiction to high-tech brands has a positive impact on life happiness.

Mrad and Cui (2017) state that brand addiction is positively linked to appearance esteem, which is considered a subdivision of self-esteem (Vamos, 1993). They also mention that consumers may become addicted to purchasing products from a certain brand to improve their self-esteem (Mrad and Cui, 2017). Also, consumers might stick to a certain brand associated with positive experiences and memories to sustain their self-esteem (Mrad and Cui, 2019). Hence, it is probable that brand addiction has a positive impact on self-esteem (Mrad and Cui, 2019). So, we we hypothesize the following:

**H8:** Addiction to high-tech brands has a positive impact on self-esteem.





**Figure 1: Research Model**

## Research Method

The objective of this research was to examine the causes and effects of brand addiction. Our survey was conducted using a random sampling method to accumulate data from the population in the Lebanese market. This means that our sample is chosen by randomly selecting individuals who have equal chances of being selected. Our target involves people from different age groups, lifestyles, backgrounds, and income levels, but all have high tendencies in purchasing or using any sort of high-tech brands.

We started the questionnaire by giving a brief definition of high technology brands. Then, we asked questions related to brand trust, love, liking, attachment, passion, loyalty, self-esteem, and life happiness. Our questions were configured using previously developed scales from different studies: brand trust (Chaudhuri and Holbrook, 2001), brand loyalty (Carroll and Ahuvia, 2006) and brand passion (Batra *et al.*, 2012; Albert *et al.*, 2009), brand love (Carroll and Ahuvia, 2006), brand attachment (Park *et al.*, 2010), brand liking (Haefner *et al.*, 2011) and brand addiction (Mrad and Cui, 2017). As for self-esteem, the variable was measured using a ten-item index (Rosenberg, 1965). Moreover, life-happiness was measured using a five-item index (Diener, 1985). Other questions related to age and gender were also added to our questionnaire.

## Results

We collected 360 responses from our sample. Our respondents included 41% males and 59% females. More than forty-six percent of the respondents reported being addict to high-tech brands.

We used convergent and discriminant validities, and scale reliability to examine our model's validity and reliability (Hair *et al.*, 2006). Convergent validity examines if items are correctly represented and reflected by their corresponding factors, whereas discriminant validity studies whether two factors are empirically different (Anderson and Gerbing, 1988). The values are as proposed by Anderson and Gerbing (1988), almost all AVEs are larger than 0.5, all CRs, the extent to which items are random error-free and therefore trigger consistent results, exceed 0.7 indicating the minimally accepted construct reliability and validity (Hair *et al.*, 2006).

To examine the discriminant validity, a comparison of the squared roots of the AVE with the factor correlation coefficients is done. The results indicate that for each variable the value of the square root of AVE is bigger than its correlation coefficient with other variables stipulating good discriminant validity (Podsakoff *et al.*, 2003). (See Appendix 1)

A structural equation model (SEM) was conducted to provide preliminary evaluation of differential validity and reliability of our hypotheses. We measured the standard estimates and the probabilities of all independent variables (brand trust, loyalty, love, liking, attachment, and passion) with regards to brand addiction, as well as the standard estimates and probabilities of brand addiction with regards to self-esteem and life happiness. Brand trust ( $y=-0.04$ ,  $p=0.899$ ) and brand loyalty ( $y=-0.023$ ,  $p=0.454$ ) had p-values of greater than alpha of 0.05, which means that these two variables are not significant indicators in the prediction of high-tech brand addiction. This is also evident in the negative standard regression coefficients of brand trust and brand loyalty, which are estimates that describe the relationship between our independent and dependent variables. This indicates that the relationships between these two variables and brand addiction are inversely proportional. Therefore, we rejected H1 and H3. However, brand love ( $y=0.075$ ,  $p=0.015$ ), brand liking ( $y=0.077$ ,  $p=0.013$ ), brand attachment ( $y=0.185$ ,  $p=0.000$ ), and brand passion ( $y=0.784$ ,  $p=0.001$ ) had a significant impact on brand addiction since they had probabilities of less than 0.05. This is also evident in the positive standard estimates of these variables, which means that these variables have a positive relationship with brand addiction. Hence, we confirmed H2, H4, H5, and H6. Moreover, brand addiction had a positive impact on self-esteem ( $y=0.353$ ,  $p=0.001$ ) and life happiness ( $y=0.183$ ,  $p=0.001$ ), since both had a significance a lot less than 0.05. This is also apparent in the positive standardized regression weights estimates of brand addiction in relation to self-esteem and life happiness, which indicates that brand addiction had a positive relationship with these two variables. These results led us to accept H7 and H8, which stated that high-tech brand addiction has a positive impact on both self-esteem and life happiness.

The characteristics of groups were compared according to their means by using analysis of variance (ANOVA) to examine the effect of the respondents' characteristics (age and gender) on brand addiction. The results from the ANOVA tests indicated that there were no significant differences between men and women or between age groups regarding brand addiction.

## Discussion

Based on our results, neither trust nor loyalty to high-tech brands had a significant impact on high-tech brand addiction. Even though some people may trust high-tech brands and be loyal to them, this does not necessarily indicate that they are highly dependent and addicted to those brands. These results are consistent with the literature review. (Bidmon, 2016) claims that people are more likely to establish a secure brand attachment relationship, which indicates that these individuals may have high levels of trust and loyalty in a brand but are not necessarily attached to it. The secure attachment style indicates that people may express high levels of interest and loyalty towards a person or a brand, but are comfortable in being independent and unaccompanied (Manson, 2019). Therefore, brand trust and brand loyalty variables are

different from brand attachment, which makes sense since consumers can trust and be loyal to a certain brand's products or services but are not always reliant on that brand. Hence, brand trust and brand loyalty can be considered as independent indicators of consumer-brand relationships and are not direct causes of brand addiction.

According to our results, brand love and liking toward high-tech brands lead to brand addiction. The higher the intensity of passionate love toward high-tech brands, the higher the obsession with that brand (Cui *et al.*, 2018). This is because obsession is an emotion that is embodied by love and passion (Fournier, 1998). Addiction to high-tech brands indicates that if love towards high-tech brands reaches the level of obsession, it will eventually lead to becoming addicted to those brands. Furthermore, the term liking, which is also known as intimacy in Sternberg's (1986) theory of love, includes strong emotions such as attachment, connectedness, affection, and many others. This shows that as consumers use a certain brand continuously throughout their lives, they will inevitably feel closer and more connected to that brand. This closeness and connectedness that the consumer feels towards the brand may develop to reach the level of addiction. Hence the stronger the tie is between the consumer and high-tech brands, the greater the possibility that this relationship may lead to addiction.

Results show that brand attachment and brand passion also have a significant impact on brand addiction. Brand attachment is considered as the strength of the bond between a certain brand and the self, and it includes two important elements that reflect its conceptual properties, which are brand-self connection and brand prominence (Park *et al.*, 2010). Brand attachment is directly linked to "brand-self connection", which echoes the bond that connects consumers to certain brands (Park *et al.*, 2010). This means that when a brand is considered to be part of the self, a consumer is expected to be more associated and attached to that brand. Moreover, if consumers use a brand regularly, this brand will ultimately grow personal meaning to them and will represent who they are as individuals, which leads consumers to get attached to that brand. In addition to brand-self connection, positive feelings and thoughts about a certain brand and the extent to which it is thought of first are also indicators of attachment, which is known as brand prominence (Park *et al.*, 2010). The attachment-aversion relationship, also known as the AA relationship model, also explains that brand addiction can be a manifestation of three main components, which are enticing the self, enabling the self, and enriching the self (Fournier and Alvarez, 2013). This indicates that people who are attached to high-tech brands to elevate their selves are likely to become addicted to those brands.

Finally, addiction to high-tech brands appears to have a positive impact on both self-esteem and life happiness. Literature found that when individuals encounter an outstanding experience with certain brands, their brains issue many chemicals, such as dopamine, which leads to feelings of well-being, and this can lead to addiction (Lewis, 2014). Furthermore, Elliott *et al.* (1996) mention that even though some shoppers get involved in addictive behaviors to improve their mood, they are generally pleased and able to handle their lives properly. Mood modification is a sign of technology addiction, which offers the consumer a sense of relief and pleasure that causes mood boosts (Turel *et al.*, 2011). This might be the case for certain consumers who are addicted to certain brands and whose experience of addiction to that brand leads them to endure more life happiness (Mrad and Cui, 2019). Also, Diener *et al.* (1991) converse that happiness is more strongly linked to the frequency than to the intensity of consumer's positive emotional experiences. This is also known as interdependence, which is related to being involved in a brand's activities since a strong brand relationship involves frequent interactions with a certain brand (MacInnis *et al.*, 2009). This means that addicted people are more prone to often experience the need or desire to collect things related to their favorite brands. This feeling or the urge to buy and own items from the addictive brand may positively influence the buyer's level of happiness (Mrad and Cui, 2017). Moreover, there is

significant evidence that states that owning products can boost happiness in people's lives (Podoshen and Andrzejewski, 2012). Therefore, high-tech brand addiction has a positive overall effect on life happiness. As for self-esteem, Mrad and Cui (2017) stated that brand addiction is positively linked to appearance esteem, which is considered a subdivision of self-esteem (Vamos, 1993). Individuals become addicted to high-tech brands to gain a certain status quo or to appear as people of high-class. Consumers are prone to stick to one certain brand if they have positive experiences and memories with it because it helps to sustain a certain level of self-esteem (Mrad and Cui, 2019). Moreover, consumers view a brand as being self-expressive if it enhances their social self or reflects their inner self (Carroll and Ahuvia, 2006). Consequently, improved self-esteem is expected to positively impact life happiness (Dommer *et al.*, 2013). Addiction to high-tech brands can help consumers enhance their self-esteem and avoid issues of negative psychological well-being, such as depression and anxiety (Rosenberg *et al.*, 1995).

### **Conclusion**

The results from the present research contributes to our current knowledge about the concept of brand addiction, what causes it, and its impact on consumers' well-being. In fact, previous studies have not looked at the causes and effects of brand addiction and, therefore, the present study extends previous research to identify the causes and consequences of brand addiction.

The different reflections of this research and the pursuit of a better understanding of consumer-brand relationships should allow the introduction of useful and rich perspectives in terms of managerial implications. Several managers of high-tech companies believe that the company's success lies solely in the price or the performance of their products (Ward *et al.*, 2014). However, price and performance are considered the first step to enter the competition in the high-tech industry, and if these companies want to attract and retain customers in the long-run, they must change their managerial attitudes (Ward *et al.*, 2014). They must understand that value has different meanings and levels to customers. The real value is the core of having strong relationships with customers, and value is not necessarily limited to features and performance (Ward *et al.*, 2014). For a long time, the main goal of any marketing strategy was to sell as many products as possible to as many customers as possible. Brands put the product or service they offer at the heart of all their decisions (Mogaji and Danbury, 2017). However, in recent years, there has been a shift in strategy. Indeed, with changes in consumer behavior and the advent of digital and new means of communication, it is no longer the product that matters, but the customer. It is important for companies to no longer focus on creating a substantial client portfolio, but rather on the qualitative aspects of such a portfolio. They must, therefore, put in place strategies that will help them build strong relationships with their clients. To build strong and sustainable relationships, it is enough to combine three components: customer knowledge, emotional connection with message and brand, and customer confidence in the brand. When these three conditions are met, the relationship is healthy, sustainable, and prosperous.

Moreover, our research helps managers identify addicted consumers and understand the impact of their products on them. This is because brands have an ethical responsibility in protecting their customers' well-being (Manjoo, 2018), since addiction may hurt them (Rosenberg *et al.*, 1995). Eventhough our paper does not discuss the negative consequences of brand addiction on consumers, it goes without saying that addiction can, in some cases, affect consumers negatively. Hence, there should also be certain policies and restrictions in order to prevent companies from creating overly addictive products to avoid the negative consequences that might arise from consumers' addiction. This is because some brands might act unethically and take advantage of the situation to increase sales for example. Certain brands, such as Apple, for example, were aware that they had an ethical responsibility towards their consumers' safety.

So when the brand received backlash for creating addictive products, it decided to build a less addictive iPhone through adjusting some of its features to make customers less addicted and to avoid further criticism (Manjoo, 2018).

Our research includes several limitations; one of our major limitations lies in the investigation of the concept of brand addiction exclusively in high technology brands in Lebanon. This means that our research findings can not be generalized to a broader population and other types of brands. Another limitation includes time, which was one of our major constraints since we had limited time to finish this research. This led us to collect our data using online questionnaires since it is considered a reliable and time-efficient tool that allows us to gather needed information from multiple respondents quickly and effectively. This affected our sample size, which was 360 respondents which is considered relatively small compared to the estimated number of Lebanese citizens in 2020, which is 6,825,445. We also recommend future research to study how the income level of addicted individuals affects their behavior and decisions. Future research need to explore the influence of other variables, such as consumers' culture and consumers' personality traits. These variables could have an impact on consumers' attitudes.

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### Appendix 1: AVE and CR

	AVE	CR
Brand Trust	0.6	0.8
Brand Love	0.52	0.84
Brand Loyalty	0.66	0.84
Brand Liking	0.74	0.92
Brand Attachment	0.61	0.81
Brand Passion	0.58	0.83
Brand Addiction	0.62	0.85
Life Happiness	0.73	0.93
Self-Esteem	0.84	0.92