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# THE EFFECTS OF PERSONAL FACTORS AND ATTITUDES TOWARDS ADVERTISING ON COMPULSIVE BUYING TENDENCY

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Cenk Arsun YÜKSEL<sup>1</sup>  
Filiz EROĞLU<sup>2</sup>

## ABSTRACT

Compulsive buying, inability to control the purchasing behavior has been recently studied extensively; however, few studies have been conducted in Turkey. This paper intended to examine the relationships among personal factors (materialism, self-esteem and mental disorders), advertising and compulsive buying tendency (CBT) within a productspecific concept (e.g. clothing) in the context of consumer culture. A total of 892 consumers participated in the study through face-to-face and self-completion survey methods. Employing Structural Equation Modeling and Hierarchical Regression Analysis, the results revealed that all personal factors and attitudes towards advertising (ATA) significantly affect CBT. Further, the moderator effect of ATA on the relationship between personal factors and CBT was partially confirmed. Finally, results were discussed and potential recommendations for further research were suggested.

**Keywords:** Compulsive buying, Personal factors, Advertising, materialism, Self-esteem, Mental disorders, Stress, Anxiety, Depression.

## KİŞİSEL FAKTÖRLER VE REKLAMA YÖNELİK TUTUMLARIN KOMPULSİF SATIN ALMA EĞİLİMİ ÜZERİNDEKİ ETKİLERİ

### ÖZET

Satın alma davranışının kontrolünde yaşanan yetersizlik, beraberinde kompulsif satın alma davranışını getirmektedir. Konu, günümüzde yoğun şekilde çalışılmasına rağmen, Türkiye’de gerçekleştirilmiş az sayıda çalışma olduğu görülmektedir. Bu çalışma, tüketim kültürü bağlamında; kişisel faktörler (materyalizm, benlik saygısı ve psikolojik bozukluklar), reklam ve kompulsif satın alma eğilimi arasındaki ilişkileri, hazır giyim sektöründe ortaya koymayı amaçlamaktadır. Yüz yüze ve bırak - topla anket yöntemleri kullanılarak 892 tüketiciden veri toplanmıştır. Yapısal Eşitlik Modellemesi ve Hiyerarşik

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<sup>1</sup> Doç. Dr. İstanbul Üniversitesi İşletme Fakültesi, cenka@istanbul.edu.tr

<sup>2</sup> İstanbul Üniversitesi İşletme Fakültesi Doktora Öğrencisi, filizeroglu79@gmail.com

Regresyon Analizi kullanılarak gerekleřtirilen alıřma bulguları, alıřmaya dahil edilen kiřisel faktörlerin ve reklama karřı tutumların kompulsif satın alma eęilimi üzerinde anlamlı seviyede etki yaptığını göstermektedir. Ayrıca, reklama karřı tutumun, kiřisel faktörlerin kompulsif satın alma üzerine yaptığını etkide oynadığı moderatör rol, kısmi şekilde anlamlı bulunmuřtur. Sonuç bölümünde, elde edilen bulgular tartiřılarak, gelecek alıřmalar için önerilerde bulunulmuřtur.

**Anahtar Kelimeler:** Kompulsif Satın Alma, Kiřisel Faktörler, Materyalizm, Benlik Saygısı, Psikolojik Bozukluklar.

## 1. Introduction

The consumer culture is defined as a culture, in which the consumers eagerly desire, pursue, consume, and display goods and services for nonfunctional reasons, such as status and pleasure seeking (Belk, 1988). Compulsive buying has become widespread for over three decades as one of the most remarkable component of consumer culture, and has been of interest to consumer behavior researchers and government authorities, not only in the affluent countries but also in developing countries (O'Guinn and Faber, 1989; Hirschman, 1992; Müller and de Zwaan, 2004; Koran, Faber, Aboujaoude, Large, Serpe, 2006; Workman and Paper, 2010; Omar, Sainze, Abdul Rahim, Che Wel, 2014). Compulsive buying is defined as a consumer's tendency to be preoccupied with buying that is revealed through repetitive buying and a deficiency of impulse control over buying behavior (Ridgway, Kukar-Kinney and Monroe, 2008). As a basis, the indications of compulsive buying behavior are uncontrollable urges that repeatedly force the consumer to buy, in order to bring a temporary relaxation from mental stress, etc. (Lo and Harvey, 2011).

Compulsive buying behavior may result in several of negative outcomes for the affected consumers such as serious economic, social and psychological consequences. In spite of their huge debts and preoccupation with buying, compulsive buyers continue to buy an increasing amount of items (Elliott, 1994; O'Guinn and Faber, 1989). Compulsive buyers typically feel unhappiness, guilt, shame, or embarrassment due to their buying behavior (O'Guinn and Faber, 1989). Numbers of research articles, popular press articles and books refer to compulsive buying and to the problems it may cause and all these make compulsive buying contemporary concern (Faber and Christenson, 1996; Benson, 2000). Researches indicate that about 5.8 % (Koran et al, 2006) or 8.9 %

(Ridgway et al., 2008) of the United States of America population could be compulsive buyers.

Compulsive buyers are more likely to possess low levels of self-esteem (Faber and O'Guinn, 1988,1989; Elliott, 1994), high materialistic values (D'Astous, Maltais, Roberge, 1990; Lejoyeux, Haberman, Solomon, Ades, 1999; Roberts, 2000), high level of stress, anxiety, and depression (Ridgway et al., 2008; Sohn and Choi, 2012) as well as high level of impulsivity (Ureta, 2007; Moore, 2009), positive attitude towards money (Palan, Morrow, Trap, Blackburn, 2011), and high interest in fashion (Trautmann-Attman and Johnson, 2009).

The most commonly noted personality characteristic of compulsive buyers is low self-esteem. It is defined as an individual's self-evaluation. The compulsive buyer tries to improve his/her self-esteem through shopping and buying activity (DeSarbo and Edwards, 1996). O'Guinn and Faber (1989) assert four-step compulsive shopping cycle, in which the first step is a general pre-disposition towards feeling of anxiety and low self-esteem.

Although there is some historical evidence for the existence of compulsive buying in the early 1900s, the research about this subject appears to be more recent (Faber, 1992). Some researchers assume that this recent appearance of compulsive buying may be related to an increased emphasis given to and availability of material possessions in the consumer culture (Richins and Dowson, 1992; Hirschman, 1992). Materialism is an important value for compulsive buying. Previous research have found a consistent relationship between compulsive buying and materialism (D'Astous et al., 1990; Lejoyeux et al., 1999; Yurchisin and Johnson, 2004; Dittmar, 2005; Ureta, 2007; Ridgway et al., 2008; Xu, 2008; Otero-Lopez, Pol, Bolano, Marino, 2011; Rasool, Kiyani, Khattak, Ahmed, Ahmed, 2012; Sohn and Choi, 2012). Pursuing materialistic ideals is a competitive and comparative process. In order to get a position of social status, consumers must go beyond the present community norms. Since other consumers also try to signal their social power via possessing and displaying material goods, the level of goods that are bought to make a powerful social status will continually increase (Roberts, 2000).

The mental disorders like stress, anxiety and depression, are other common antecedents of compulsive buying behavior with regard to the relevant literature as well as being common diseases of consumer culture. Compulsive buyers struggle with higher levels of stress and anxiety than non-compulsive buyers do (Valence, D'Astous, Fortier, 1988). Escape from anxiety is commonly

indicated as the primary motivation of compulsive or addictive buyers (DeSarbo and Edwards, 1996). Compulsive buyers employ shopping and buying activity as an instrument for relieving stress and anxiety. Similarly, numbers of people escape from depression through addictive and compulsive behaviors. When life becomes hard to deal with, people who are affected by chronic depression as an indicator of anxiety may use their addictive or compulsive behavior to relieve from the depressive state (DeSarbo and Edwards, 1996). For consumers, living in the consumption culture, buying behavior seems to be the shortest and a temporary form of relieving from all stress, anxiety, and depression states.

Also, there are socio-cultural and/or commercial factors (e.g. advertising) other than psychological and personal factors that effect compulsive buying tendency. Advertising, as a crucial marketing effort, is blamed to communicate the important codes of materialistic consumption culture with the society. Advertising contributes to the notion that happiness is derived from purchasing and consumption. In this regard, limited research has investigated the relationship between advertising and compulsive buying but the results do not seem to be comprehensive.

In order to extend our understanding of compulsive buying literature, the current research aims to figure out the relationships among aforementioned personal factors (e.g. self-esteem, materialism, mental disorders) and ATA with compulsive buying as well as the moderating role of ATA on the relationships among personal factors and compulsive buying. Findings of this paper are also expected to fill the gap in the literature for Turkish consumers' compulsive buying tendencies.

## 2. Literature Review

### 2.1. Compulsive Buying Behavior

The early literature on compulsive buying behavior have been interested in clinical aspects of the concept. Kraepelin (1915) and Bleuler (1924) originally referred to *oniomania* and *buying mania* in the psychiatric literature (Lo and Harvey, 2011). Only since the beginning of 1980's, marketing academicians and particularly consumer researchers have focused on CBT. The first definition of compulsive buying in the marketing literature is "*a type of consumer behavior which is inappropriate, typically excessive, and clearly disruptive to the lives of individuals who appear impulsively driven to consume*" (Faber, O'Guinn and Krych,

1987). Compulsive buying behavior, in other words, has been described as a chronic and repetitive purchasing that becomes the primary response to negative events or feelings (O'Guinn and Faber, 1989).

Compulsive buying is an important issue but it has been studied only recently by consumer behavior researchers. It is an abnormal form of shopping and spending, dark side of marketing, in which the afflicted consumer has an overpowering, uncontrollable, chronic and repetitive urge to shop and spend. Researchers vary in how they define compulsive buying behavior. This behavior has been termed compulsive shopping (Winestine, 1985), compulsive consumption (Faber et al., 1987) or compulsive buying (Valence et al, 1988) where the behavior is seen as being under the control of an irresistible urge to buy, or there is an inclination to use all of the terms interchangeably. However, as Scherhorn (1990) points out, this buying behavior is more accurately described as an addiction since it involves the extension of normal behavior into a pathological habit and there is an initial pleasure, while compulsion involves unwelcome pressure to do something against the person's will. The psychiatrists also seem to be prone to categorize this behavior as addictive rather than compulsive, for the fact that it does not show the key diagnostic symptoms for compulsions of external control of the behavior against the will of the individual (American Psychiatric Association, 1990).

In Turkey, there's limited research about CBT from consumer behavior point of view (Erkmen and Yüksel, 2008; Ergin, 2010). The findings give important clues about CBT in Turkey.

The compulsive buyer's motives are not primarily linked to the possession of goods and services. The potential causes of compulsive buying can be psychological, biochemical or sociological in nature (Faber and Christenson, 1996). The widespread motivational explanations for compulsive buying include self-esteem (Faber and O'Guinn, 1988,1989; Elliott, 1994; DeSarbo and Edwards, 1996; Yurchisin and Johnson, 2004; Moore, 2009), materialism (D'Astous et al., 1990; Lejoyeux et al., 1999; Roberts, 2000; Otero-Lopez et al., 2011; Sohn and Choi, 2012), coping with stress, anxiety and depression (Ridgway et al., 2008; Sohn and Choi, 2012), imaginative fantasy (Faber and O'Guinn, 1989; Roberts, 1998), and Five-Factor personality traits (Mowen and Spears, 1999; Balabanis, 2001; Johnson and Atmann, 2009). There are hundreds of studies to find out the relationships of all these factors and CBT.

The present research comprises the concepts of materialism, self-esteem, stress-anxiety-depression and attitudes toward advertising in the context of consumer culture. It should be noted that compulsive buying *tendency* is investigated in the present research rather than compulsive buying *behavior*, because; when *behavior* is used, then the sample should be divided into two groups as compulsive and non-compulsive and these two groups should be compared. However, this research intends to investigate the level of compulsive buying, since each consumer has a specific level of compulsive buying tendency. Moreover, a specific product type is selected in the study in order to reduce the confusion. Clothing was chosen as the product type due to its close relationships with study's factors and general context of the consumer culture.

## 2.2. Materialism

Over the last decade, materialism has become one of the substantial factors that have aroused the greatest interest among academicians (Griffin, Babin and Christensen, 2004). (Kukar-Kinney, Ridgway and Monroe, 2009). Belk (1985) defined materialism as "*the importance a consumer attaches to worldly possessions*". He conceived materialism as a personality variable with three dimensions: envy, possessiveness, and non-generosity. Low reliabilities for each of the subscales of Belk's materialism measure led Richins and Dawson (1992) to improve a new scale to measure materialism.

Richins and Dawson (1992) defined materialism as "*a set of centrally held beliefs about the importance of possessions in one's life*". Materialism was conceptualized as consisting of three subscales: Acquisition centrality, acquisition as the pursuit of happiness and possession-defined success. Acquisition centrality refers that materialists place possessions and their acquisitions at the center of their lives. Furthermore, materialists attempt to find happiness and satisfaction through possessions and acquisitions. The third dimension means the tendency of consumers to judge their own and others' success by the number and quality of acquisitions.

Within the framework of the consumer culture, individuals who struggle with compulsive buying are characterized by mass consumption, materialism and a motto: "*to have is to be*" (Fromm, 1976). Also, this increasing motivation towards materialism may help to explain the findings that CBT have increased during the last years (Reisch, Neuner and Raab, 2004). Meanwhile, material goods and acquisitions have come to play a different and greater psychological role in people's lives, due to changes in motivations for buying material goods with the

social and cultural changes in consumer culture. Consumer goods not only assist consumers to regulate their feelings (Elliott, 1994), but also provide them social status (McCracken, 1990) because these material goods may play a function as a symbol of who a person is and who would like to be (Dittmar, 2005). Thus, people increasingly consume the symbolic meanings associated with material goods with hope to reach a better self (Benson, 2000; Dittmar, 2005).

For all these reasons, materialism has been chosen as one of the personal factors for this research. Based on the above considerations, the following prediction is made:

*H1: Materialism positively affects compulsive buying tendency.*

### **2.3. Self-Esteem**

In the context of consumer culture, self-concept has become an important issue for consumers. Self-esteem is an individual's sense of self-worth and how much a person likes, accepts, and respects him/herself for who he or she is. A person with low self-esteem reports more negative emotional states, higher anxiety and higher stress level (Brown and Marshall, 2001; Cast and Burke, 2002). Several researches have significantly linked self-esteem to compulsive buying behavior. Particularly, low self-esteem has been accepted as an important motivation for an urge to buy (D'Astous, 1990) and compulsive buying afterwards (Faber and O'Guinn, 1988; Roberts, 1998; Yurchisin and Johnson, 2004). From a self-esteem perspective, the consumer is motivated to buy a positively valued product to sustain a positive self-image or to enhance him/herself by approaching an ideal image (Sirgy, 1982). Scherhorn, Reisch, Raab (1990) classify this buying behavior as "addictive", not "compulsive". They refer to Peele and Brodsky (1975) who state that an addict always feels incapable and incompetent of engaging himself/herself in any kind of activity meaningful to him/her. Because of the addict's low self-esteem and lack of self-respect, he or she relies on outside support for survival. Baumeister (1997) assumes that low self-esteem is accompanied with anxiety and depression, then the consumer faces with two situations: (1) The consumer accepts negative evaluation about himself or herself, (2) The consumer struggles with these negative states. As a result, he/she looks for temporarily and low-level activities to eliminate negative emotions. In Wilczaki's paper (2006), a compulsive buyer expresses that he has low self-esteem for his entire life and needs to buy new things to feel precious to himself. Consumers with low self-esteem may resort to buy something in order

to escape from negative effects based on their low self-esteem. For these reasons, the hypothesis is formed as:

*H2: Self-esteem negatively affects compulsive buying tendency.*

## **2.4. Mental Disorders: Stress, Anxiety and Depression**

Mental disorders, particularly stress, anxiety and depression are reported as important predictors for compulsive buying in many researches. Stress is the feeling people have when they are under pressure. People struggle with stress via different methods and buying is one of them. Many studies present that the level of the stress of a person is positively related with his level of compulsive buying tendency (DeSarbo and Edwards, 1996; Ridgway et al., 2008; Sohn and Choi, 2012).

Anxiety is defined by American Psychological Association as an emotion characterized by feelings of tension, worry, and physical changes. Studies reveal that compulsive buyers have higher anxiety level than non-compulsive buyers (Valence, et al., 1988; Edwards, 1993; Roberts and Jones, 2001). Valence et al., (1988) conceptualize that, different factors causes anxiety and anxiety provokes a spontaneous action and drives the consumer to reduce this tension.

Depression is a mental disorder characterized by extreme gloom, feelings of inadequacy, and inability to concentrate (Collins Dictionary). Compulsive buyers are more prone to be affected by depression (Krueger, 1988; Christenson, Faber, Swann, Raymond, 1994; Schlosser, Black, Repertinger, Freet, 1994; Lejoyeux, Hourtané and Adés, 1995; Faber and Christenson, 1996; Black, Repertinger, Gaffner, Gabel, 1998; Frost, Steketee and Williams, 2002; Dittmar, Long, Bond, 2007; Billieux, Rochat, Rebetez, Linden, 2008; Sneath, Lacey, Kenneth-Hensel, 2009, Ergin, 2010; Sohn and Choi, 2012).

Workman and Paper (2010) state that stress, anxiety and depression are major motives for compulsive consumption. Wu (2006) indicates stress and anxiety; Kellett and Bolton (2009) indicate depression and anxiety as the causes of compulsive buying. In consumer culture, consumers' high stress, anxiety and depression level may cause compulsive buying in order to escape from these negative feelings. Therefore the third hypothesis is structured as:

*H3: Mental disorders positively affect compulsive buying tendency.*



## 2.5. Advertising

Advertising has an important role on transmitting crucial codes of consumer culture to the society. Selling products through associating them with people's ideal images is a common advertising strategy (Snyder and De Bono, 1985). This may be particularly true that compulsive buyers' attitudes towards advertising, emphasizing image rather than product benefits, are more positive than non-compulsive buyers (D'Astous and Bellemare, 1989). The authors state that the American advertising industry has trained consumers to solve problems with products (Workman and Paper, 2010). On the other hand, it is suspected by many of those, DA (Debtors Anonymous) and CCCS (Consumer Credit Counseling Services), that compulsive buyers may actually be negatively impacted and encouraged to continue compulsive buying by marketing communications tactics such as advertising (De Graaf, Wann and Naylor, 2005). Pollay (1986) proposes that television advertising strengthens the materialist concept among members of society. Television viewing has been found to increase the compulsion of buying (Faber and O'Guinn, 1988). Moore (2009), Guo and Cai (2011) and Sohn and Choi (2012) reveal that advertising has positive effect on compulsive buying and compulsive buyers are more exposed to advertising.

This research uses consumers' attitudes towards advertising rather than advertising effect. Existing literature about the effect of advertising on compulsive buying is not comprehensive. Therefore, present research aims to develop related literature.

*H4: ATA positively affect CBT.*

Furthermore, moderation effect of advertising on the relationships between personal factors and compulsive buying is important. The results of this research are expected to be sufficient to present comprehensive information about the role of advertising on compulsive buying.

*H5: Moderation effect of ATA on the relationship between personal factors and CBT is significant.*

## 3. Model of the Study

In this study, compulsive buying tendency is conceptualized as a notion that is positively affected by materialism, mental disorders and ATA as well as

negatively affected by self-esteem. Furthermore, the moderating effect of ATA on the relationships between personal factors and CBT is searched. Model of the study is represented in Figure 1.

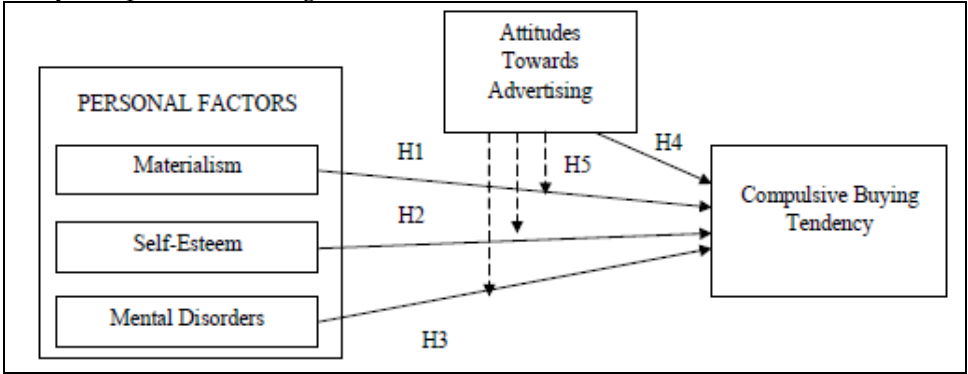


Figure 1: Model of the Study

#### 4. The Aim and Importance of the Study

There are numerous researches about the relationship between compulsive buying and aforementioned personal factors one by one. However, limited studies have pointed out the effects of more than one different categorized-factor on compulsive buying at once, like personal factors and advertising at the same time. Additionally, the moderator effect of attitudes towards advertising on the relationships between personal factors and compulsive buying tendency has not been investigated previously. Furthermore, there have been limited studies about compulsive buying tendency in Turkey. The aim of this paper is to fill this gap as well as figure out the relationships among personal factors, self-esteem, materialism, mental disorders, advertising and compulsive buying and the moderating effect of attitudes towards advertising on these relationships.

#### 5. Methodology

##### 5.1. Measurement

All measurement items were adopted from the relevant literature. *Materialism* was measured with the materialism scale developed by Richins and Dowson (1992) that has three dimensions including success, happiness and centrality. *Self-esteem* was evaluated by means of an instrument designed by Rosenberg in 1965. The present study corroborates the one-dimensional nature of this 10-item

scale. Mental disorders, *stress, anxiety and depression* were measured with DASS-21 Scale (Henry and Crawford, 2005). Scale was consisted of three dimensions; stress, anxiety, and depression. Each dimension was measured with seven items. *Attitudes towards advertising* scale is adopted from Pollay and Mittal (1993)'s attitudes towards advertising measure with five dimensions. Finally, the *tendency to buy compulsively* was measured using the scale developed by Edwards (1993), with its five dimensions. All items were measured via five-point Likert type scale (values from "1=strongly disagree" to "5=Strongly agree").

## 5.2. Sampling

A convenience sample of 892 consumers in three cities in the West side of Turkey was recruited. Face-to-face and self-completion survey methods were conducted to collect data over a four-month period. Since employing different methods may lead to instrument effect, Independent Sample t-Test was conducted to find out whether there was a difference between two groups who complete survey via face-to-face (583 participants) and self-completion survey methods (309 participants). Results revealed that there is no significant difference at Sig. (2-tailed)=0,05 level between these two groups (Table 1).

**Table 1:** Results of the Independent Sample t-Test

Factor	Survey	N	Mean	F	Sig.
CBT	FACE	583	3,4435	0,003	0,957
	SELF	309	3,4479		
MD	FACE	583	2,2177	0,003	0,957
	SELF	309	2,2312		
MATER	FACE	583	3,3111	0,003	0,954
	SELF	309	3,3085		
SE	FACE	583	4,0734	0,133	0,715
	SELF	309	4,0851		
ATA	FACE	583	3,0393	0,802	0,371
	SELF	309	3,0776		

(CBT: Compulsive Buying Tendency, MD: Mental Disorder, MATER: Materialism, SE: Self-Esteem, ATA: Attitudes Towards Advertising)

Interviewers were trained by the authors in administrating the survey instrument and were instructed to include in the sample of people with different profile, considering age, gender, education and income. The sample was largely female (74.6 percent). Approximately half of the sample was single (53.3 percent) and divorced/widow consumers were also represented (6.8 percent). 85.4% of the participants were under the age of 45. Income level of the participants was normally distributed. Different occupations were represented in the study (16.8%, student; 18.8%, housewife; 2.1%, retired; 29%, private sector employee; 18,6%, public sector employee). 38.5% of the participants had high school degree and 31.6% of them had undergraduate degree.

## 6. Findings

This study uses Structural Equation Modeling (SEM) with AMOS 22.0 to evaluate the model. As a result of exploratory factor analysis, some items were disposed from the scale. For personal factors; all of the remaining factor loadings were high and were loaded as in the literature; self-esteem in a single factor; materialism and mental factors in three different factors each. However, the present study's factor loadings of attitudes towards advertising scale and compulsive buying tendencies were different from the literature. For attitudes towards advertising scale, information and attitudes dimension; social role and image dimension and recreation dimension were loaded in one factor separately. For compulsive buying scale, post-purchase guilt and emotion dimension, dysfunctional spending and drive to spend dimension were loaded in one factor separately. After extracting some variables (*STRS5, ANX5, ANX7, DEP7* from *mental disorders*; *SE3, SE9* from *self-esteem*; *SUC1, SUC5, CENT1, CENT7* from *materialism*; *TS4, TS8, CS2, PPG3* from *compulsive buying tendency*, *REC2, INF3* from *attitudes towards advertising*) impairing structures of the factors, KMO values were 0.927 for personal factors; 0.957 for attitudes towards advertising and 0.943 for compulsive buying tendency. After exploratory factor analysis, confirmatory factor analysis (CFA) was conducted and the results showed an adequate model fit. Chi-square parameter was significant ( $p < 0.000$ ). Since chi-square is sensitive to sample size, relative chi-square (CMIN/df) is commonly suggested in the measurement literature. Relative chi-square value and other fit indexes had approximate acceptable levels for all factors (For *Personal factors*, CMIN/df=2.899, GFI=0.868, AGFI=0.847, NFI=0.860, CFI=0.903, RMSEA=0.051. For *attitudes towards advertising*, CMIN/df=5.003, GFI=0.900, AGFI=0.858, NFI=0.903, CFI=0.919, RMSEA=0.055. For *compulsive buying tendency*, CMIN/df=5.051, GFI=0.874, AGFI=0.840, NFI=0.931, CFI=0.934,

RMSEA=0.059). In addition, all of the factors have high internal consistencies (*Cronbach's Alpha: materialism 0.942; self-esteem 0.907; mental disorders 0.891; ATA 0.808; CBT 0.891*).

The model in Figure 1 was estimated using structural equation modeling. The fit obtained was satisfactory (CFI=0.988; NFI=0.971, GFI=0.968, AGFI=0.957, RMSEA=0.028). Considering the antecedents of compulsive buying tendency, significant relationships were found for mental disorders ( $p<0.000$ ), self-esteem ( $p<0.003$ ), materialism ( $p<0.000$ ), and attitudes toward advertising ( $p<0.002$ ), supporting H3, H2, H1, H4 respectively. The parameters obtained can be seen in Table 2.

**Table 2:** Structural Equation Modeling Test Results

Model Relationships		Regression Weights	S.E.	C.R.	P	Hypotheses	Accepted/ Rejected	Standardized Regression Weights
Mental.Dis.	CBT	0.515	0.228	1.573	0.000	H3	Accepted	0.601
Self-Esteem	CBT	-0.184	0.089	2.080	0.003	H2	Accepted	-0.278
Materialism	CBT	0.819	0.196	4.135	0.000	H1	Accepted	0.933
Advertising	CBT	0.602	0.045	1.427	0.002	H4	Accepted	0.785

Mental.Dis: Mental Disorders

CBT: Compulsive Buying Tendency

Results also revealed that compulsive buying tendency was affected from materialism ( $\beta=0.933$ ), attitudes towards advertising ( $\beta=0.785$ ), mental disorders ( $\beta=0.601$ ) and self-esteem ( $\beta=0.278$ ). In this order, materialism is the most important factor for explaining compulsive buying tendency. The dimensions of attitude and information ( $\beta=0.874$ ), happiness ( $\beta=0.895$ ), and stress ( $\beta=0.822$ ) have the maximum effects on attitudes towards advertising, materialism, and mental disorders factors respectively.

Hierarchical Moderated Regression Analysis was conducted to test H5, which suggested the moderating effect of attitudes towards advertising on the relationships among personal factors and compulsive buying tendency. Personal factors were entered into the analysis one by one, as materialism, self-esteem and mental disorders: Stress, anxiety, and depression. Also, attitudes towards advertising were analyzed with its three dimensions namely (1) attitude and information, (2) materialistic society and (3) social role, image and recreation. Aiken and West (1991) methodology was used to measure the

moderation effect of ATA. In Step 1, we entered the mean-centered of materialism, self-esteem, mental disorders, and the mean-centered attitudes towards dimensions of advertising to the regression model in order to reduce multicollinearity. In Step 2, we entered the interaction term formed by multiplying the mean centered materialism, self-esteem, mental disorders, and dimensions of attitudes towards advertising term (Aiken and West, 1991). The moderator hypothesis was supported. That is, if the main effects of ATA accounted for a significant incremental variance in explaining CBT, either one by one, presented by beta values, or collectively, revealed by the values of the incremental *F*-statistics.

Table 3 presents the findings of the Hierarchical Moderated Regression Analysis in order to test the moderating effect of attitudes towards advertising with its three dimensions on the relationship between the dimensions of materialism and compulsive buying tendency.

The findings revealed that all three dimensions of attitudes towards advertising had significant moderator effect on the relationship between materialism and compulsive buying tendency. Social Role Image and Recreation dimension had the greatest difference in  $R^2$  change.

**Table 3:** Hierarchical Moderated Regression Analyses to Test the Moderating Effect of Attitudes Towards Advertising on the Relationship Between Materialism and Compulsive Buying Tendency

<b>Dependent Variable = Compulsive Buying Tendency</b>		
	<b>Step 1</b>	<b>Step 2</b>
Materialism	0.70	0.68
Attitude and Information	0.20	0.23
Materialism x Attitude and Information		0.30
R <sup>2</sup>	0.84	0.87
Change in R <sup>2</sup>		0.03
F	2411.13	2125.02
Change in F		242.55
Sig. F Change		0.00*
Materialism	0.90	0.88
Materialistic Society	0.028	0.09
Materialism x Materialistic Society		0.14
R <sup>2</sup>	0.83	0.85
Change in R <sup>2</sup>		0.02
F	2276.83	1642.95
Change in F		62.12
Sig. F Change		0.00*
Materialism	0.96	0.65
Social Role Image and Recreation	0.07	0.02
Materialism x Social Role Image and Recreation		0.33
R <sup>2</sup>	0.80	0.86
Change in R <sup>2</sup>		0.06
F	2312.28	2228.58
Change in F		333.18
Sig. F Change		0.00*

\*p&lt;0.05

Table 4 shows the findings of the hierarchical moderated regression analysis in order to test the moderating effect of attitudes towards advertising with its three dimensions on the relationship between the dimensions of self-esteem and compulsive buying tendency.

Materialistic society dimension of advertising did not seem to make significant change in R<sup>2</sup> (*Change in R<sup>2</sup>=0.00; p=0.06*). However, attitude and information

dimension and social role image recreation dimension had significant moderating role on the relationship between self-esteem and compulsive buying tendency (*Change in R<sup>2</sup>=0.02 and 0.01 respectively, p=0.00 for both*) (Table 3).

**Table 4:** Hierarchical Moderated Regression Analyses to Test the Moderating Effect of Attitudes Towards Advertising on the Relationship Between Self-Esteem and Compulsive Buying Tendency

<b>Dependent Variable = Compulsive Buying Tendency</b>		
	<b>Step 1</b>	<b>Step 2</b>
Self-Esteem	-0.25	-0.15
Attitude and Information	0.08	0.12
Self-Esteem x Attitude and Information		0.35
R <sup>2</sup>	0.66	0.68
Change in R <sup>2</sup>		0.02
F	425.38	654.81
Change in F		569.55
Sig. F Change		0.00*
Self-Esteem	-0.31	-0.30
Materialistic Society	-0.11	-0.13
Self-Esteem x Materialistic Society		-0.27
R <sup>2</sup>	0.63	0.63
Change in R <sup>2</sup>		0.00
F	435.77	517.34
Change in F		244.09
Sig. F Change		0.06*
Self-Esteem	-0.51	-0.52
Social Rol Image and Recreation	0.27	0.24
Self-Esteem x Social Rol Image and Recreation		0.45
R <sup>2</sup>	0.57	0.58
Change in R <sup>2</sup>		0.01
F	488.51	744.38
Change in F		598.96
Sig. F Change		0.00*

\*p<0.05

Table 5 presents the findings of the hierarchical moderated regression analysis in order to test the moderating effect of attitudes towards advertising with its three dimensions on the relationship between the dimensions of mental disorders and compulsive buying tendency.



**Table 5:** Hierarchical Moderated Regression Analyses to Test the Moderating Effect of Attitudes Towards Advertising on the Relationship Between Mental Disorders and Compulsive Buying Tendency

<b>Dependent Variable = Compulsive Buying Tendency</b>		
	<b>Step 1</b>	<b>Step 2</b>
Mental Disorders (PD)	0.51	0.50
Attitude and Information	0.13	0.18
(PD) X Attitude and Information		0.47
R <sup>2</sup>	0.52	0.52
Change in R <sup>2</sup>		0.00
F	496.607	551.23
Change in F		530.07
Sig. F Change		0.12*
<hr/>		
Mental Disorders (PD)	0.58	0.55
Materialistic Society	-0.01	-0.03
(PD) x Materialistic Society		0.30
R <sup>2</sup>	0.59	0.60
Change in R <sup>2</sup>		0.01
F	476.15	456.86
Change in F		102.46
Sig. F Change		0.10*
<hr/>		
Mental Disorders (PD)	0.60	0.61
Social Role Image and Recreation	0.14	-0.04
(PD) x Social Role Image and Recreation		-0.52
R <sup>2</sup>	0.52	0.55
Change in R <sup>2</sup>		0.03
F	492.93	969.33
Change in F		911.93
Sig. F Change		0.00*

\*p<0.05

Table 5 shows that, attitude and information dimension and materialist society dimension had no significant moderating effect on the relationship between mental disorders and compulsive buying tendency (*Change in R<sup>2</sup>=0.00 and 0.01; p=0.12 and 0.10 respectively*). On the other hand, Social Role Image and Recreation dimension had significant positive effect (*Change in R<sup>2</sup>=0.03 and p=0.00*).

The findings from these analyses partially supported H5. Moderating effect changed according to personal factor type and according to the dimensions of the ATA. Particularly, all three dimensions had significant moderating effects on the relationship between materialism and compulsive buying tendency. However, materialistic society dimension had no moderating effect on the relationship between self-esteem and compulsive buying tendency. Similarly, attitude and information, and materialistic society dimensions had no significant moderating effect on the relationship between mental disorders and compulsive buying tendency.

## 7. Conclusion

This study investigates the effect of materialism, self-esteem and mental disorders, stress-anxiety-depression, as personal factors and attitudes towards advertising, as a marketing effort, on compulsive buying tendency as well as the moderating effect of attitudes towards advertising on the relationships between personal factors and compulsive buying tendency in the context of the consumer culture. Results show that materialism, self-esteem, mental disorders and attitudes towards advertising positively affects compulsive buying tendency. These results are consistent with the findings from different studies (DeSarbo and Edwards, 1996; Roberts, 2000; Yurchisin and Johnson, 2004; Rasool et al., 2012 for *materialism*; D'Astous, 1990; Elliott, 1994; Rodriguez-Villarino, 2006; Ridgway et al., 2008 for *self-esteem*; Sohn and Choi, 2012 for *mental disorders*; Guo and Cai, 2011; Sohn and Choi, 2012 for *attitudes towards advertising*). Moreover, dimension of happiness has the greatest effect on materialism as well as attitude and information dimension has the greatest effect on attitudes towards advertising. Also, stress is the most effective dimension on mental disorders.

In order to test the moderating effect of attitudes towards advertising on the relationship between personal factors and compulsive buying tendency, a hierarchical moderating regression test is conducted. In the present research, attitudes towards advertising have three dimensions. Since materialistic society dimension has different structure from attitude and information, and social role image and recreation dimension, these three dimensions are employed one by one in the analysis. According to the results, attitudes towards advertising have significant effect on the relationship between materialism and compulsive buying tendency. Nevertheless, materialistic society dimension has no moderating effect on the relationship between self-esteem and compulsive

buying tendency as well as attitude and information, and materialistic society dimensions have no significant moderating effect on the relationship between mental disorders and compulsive buying tendency.

Compulsive buying seems to be crucial in consumer culture, and materialism is one of the important cornerstones of consumer culture (Roberts, 2000). So, it is an expected result that materialism has a noteworthy effect on compulsive buying tendency. However, whichever dimension has the greatest effect among others may change depending on number of reasons. The present study, conducted with Turkish customers shows that the happiness dimension is dominant for materialism factor.

Moreover, the findings of the research reveal that each of the factors of mental disorders, stress, anxiety, and depression has a significant and positive affect on compulsive buying tendency. Because of the fact that compulsive buying behavior may be categorized as obsessive-compulsive disorder, aforementioned disorders may be the causes of compulsive buying, too. Related literature provides enough findings to prove this assumption (Valence et al., 1988; Edwards, 1993; Roberts and Jones, 2001; Sohn and Choi, 2012). Results also reveal that stress is the most effective dimension for this factor. In consumer culture, stress level become higher so this result is not surprising for Turkish consumers either.

Additionally, results indicate that self-esteem has a significant, positive effect on compulsive buying tendency. However, this effect is less important than it is expected, especially when comparing with the other personal factors in the study. The reason is that self-esteem is commonly investigated and approved to be an important antecedent of compulsive buying behavior (Krueger, 1988, O'Guinn and Faber, 1989; Faber, 1992; Elliott, 1994; Roberts, 1998; Yurchisin and Johnson, 2004; Ridgway et al., 2008). These studies propounded that low-self esteem is an important driver of compulsive buying behavior. Since consumers with low self-esteem would try to increase it, he/she inclines to buy something compulsively. However, it does not seem that Turkish consumers with high compulsive buying tendency have low self-esteem. Maybe other motivations, like status, conspicuous consumption are more effective to drive compulsive buying tendency in Turkey.

Advertising, as one of the fundamental marketing effort, is important to impose basic codes of materialistic society to consumers and it's often blamed by public opinion to cause compulsive buying in the consumer culture. For this reason,

this study investigates direct and moderator effect of advertising on compulsive buying tendency. Findings show that attitudes towards advertising significantly and positively affect compulsive buying tendency. Furthermore, the moderating effect of advertising on the relationship between materialism and compulsive buying tendency is confirmed. More positive attitude towards advertising makes significant incremental increase on the relationship between materialism and compulsive buying tendency. However, materialistic society dimension has no moderating effect on the relationship between self-esteem and compulsive buying tendency as well as attitude and information, and materialistic society dimensions have no significant moderating effect on the relationship between mental disorders and compulsive buying tendency.

In conclusion, the findings are partially consistent with the related literature. The effect of self-esteem is significant but not high as it is expected. This may stem from various aspects of Turkish consumer, as much as the testing effect. Future research may investigate the subject deeply and maybe by using a qualitative research, like in-depth interview rather than quantitate techniques. As materialism, happiness dimension is the most effective driver for Turkish consumers as an increasing factor of compulsive buying tendency. All of the government officials, advertising agencies, and marketing managers should behave ethically and warn consumers to behave consciously and realize that happiness could not be received by buying or possessing. Emphasis of these messages may include that buying is not a cure for stress and other mental disorders. Advertisements, booklets, and publications can be utilized or competent consultants may be charged to give lectures or form some discussion for the consumers with compulsive buying problem. Otherwise, financial and social results of compulsive buying behavior may cause miserable outcomes for both companies and society.

Although the results of this study give some considerable findings especially for the public opinion and the government authorities, it also presents important suggestions for marketers. Marketers should be aware of that it is a part of their social responsibility to prevent compulsive buying behavior. This is about marketing ethics that deals with the ethic principles beyond operation part of marketing. According to the results of this study, particularly advertisement authorities might be expected more sensitive for consumers with high compulsive buying tendency. Furthermore, companies may identify their own compulsive buyers via several surveys and develop some strategies especially

for insolvent customers. For instance, specific booklets expressing damages of compulsive buying might be sent to these customers.

Some limitations of the current study have to be reported. First of all, it was limited to the clothing industry due to its relations with other factors of the research. A replication of this study for other personal factors and/or product types could provide valuable results. Besides that, employing just materialism, self-esteem and some mental disorders for personal factors, and employing just advertising as a marketing strategy are other limitations of the current study. Moreover, data collection was performed in specific cities via convenience sampling method so the results cannot be generalized among all Turkish customers.

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