

# A Pre Study for Developing and Exploring An “Impulsive Buying Scale” for Turkish Population

*Ertugrul Godelek, PhD*  
*Fatih Akalin*

University of Mersin, Science and Literature Faculty, Department of Psychology, Mersin-Turkey

Doi:10.19044/esj.2018.v14n32p72

URL:<http://dx.doi.org/10.19044/esj.2018.v14n32p72>

---

## Abstract

Impulsive buying has 4.2 billion US \$ trading volume a year in the USA. First researches about impulsive buying had been conducted between 1945 and 1965 as Unplanned Buying by DuPont Customer Buying Researches in the USA. In the researches conducted for over sixty years, many definitions of compulsive buying have been given. Verplanken and at all. (2011), Rook at all., (1995) defined impulsive buying as unneeded and unreflective buying which occurs under the impulse of the moment. The purpose of this research is twofold; one of which is to develop a valid and reliable “Impulsive Buying Scale”, and the second is to investigate the effect of demographic and socio-economic variables on impulsive buying by using the aforementioned scale. For this reason, “Impulsive Buying Scale” was applied to 800 participants who live in Mersin. Construct Validity was used to evaluate the validity of scale; the Cronbach’s Alpha was used to evaluate the reliability of scale. According to the findings, a valid and reliable scale, which can be used to measure impulsive buying, was obtained. In addition to this finding, it was also found that some socio-economical and demographical variables affected impulsive buying.

---

**Keywords:** Impulsive buying, impulsive buying scale, validity, reliability

## Introduction

The phenomenon of impulsive buying has been studied for over sixty years. It had attracted the attention of the researchers in the marketing field since the 1940’s, and the first comprehensive studies had been conducted between 1945 and 1965 under the name DuPont Consumer Buying Habit Studies, in the USA. These studies had encouraged the impulsive buying research (Piron, 1991). However, the common ground for the research on

impulsive buying comprised of making a valid definition (Stern, 1962; Kollat and Willet, 1967; Rook and Hock, 1985; Rook; 1987; Piron 1991).

*“Some studies have shown that impulsive buying tendency is associated with both positive and negative emotions. Herabadi, at. all., (2009) showed that the self-rating of buying impulsiveness, which correlated .70 with Verplanken at all’s (2001) impulse buying tendency scale, taken 2 months earlier, predicted positive high arousal feelings associated with a purchase. On the other hand, Verplanken, Herabadi at all., (2005) found that affective aspects of impulsive buying tendency were positively correlated with high negative affect ( $r = .32$ ). Since research has shown that personality traits influence emotional reactions, it could be that Extraversion and Neuroticism are also driving the relationship between impulsive buying tendencies and positive and negative emotions (Bratko at all., 2013).”*

In the English-Turkish dictionary published by the Turkish Language Association, the term “impulsive buying” is defined as “buying a good without thinking its price, ‘sudden’ buying”, and the term “impulsive buyer” is defined as “a person who buys something without thinking, at first sight, ‘sudden’ buyer”. Müftüoğlu (2004) argues that impulsive buying was termed as “unplanned purchase”; however, it was not the consumer investigated in the studies that defined impulsive buying as unplanned buying, conducted to reveal the consumer buying habits, which had drawn interest after the 1940’s, but it was the buying behaviour. In this respect, the term impulsive buying is preferred in our study.

Rook and Hock (1985) defined impulsive buying as “unplanned purchases done without any need and benefit received”, and thus focused on the cognitive and emotive responses the consumers experienced during unplanned purchases. Later, Rook (1987) asserted that impulsive buying emerged with the sudden, mostly powerful and nonstop urge of a consumer to buy something. This urge to buy creates a mental chaos and emotional conflict occurs.

Piron (1991) conducted a meta-analysis of the studies conducted by numerous researchers on impulsive buying, and analysed the definitions by categorising them under 13 categories. Later, he unified these definitions and suggested an exhaustive definition for impulsive buying. The researcher defined impulsive buying as unplanned purchase as a result of a stimulus, *decided* on-the-spot; and asserted that the consumer experienced motive and/or cognitive reactions after the purchase.

Beatty and Ferrell (1998) defined the impulsive buying tendency as the tendency to feel the spontaneous urge that causes to buy on-the-spot, and acting according to the urge, without much assessment. In Bellenger et al. (1978) entertainment consumers are the consumers with a greater tendency for impulsive buying. These consumers do not make any plans about what to buy

before going shopping. Even more, Rook and Hock's (1985) study states that consumers with greater tendency for impulsive buying go shopping instantaneously. Rook and Fisher (1995) argued that consumers with greater tendency for impulsive buying were highly sensitive to impulsive stimuli, their shopping lists were open-ended, and they were full of thoughts for buying anything. It is emphasised, in the literature, that the behaviours of consumers who exhibit impulsive buying, acted as a reaction to the stimuli and it is very difficult for them to control their behaviours.

Impulsive buying has a 4.2 trillion dollars trading size annually in the USA (Kacen and Lee, 2002). The research on impulsive buying in Turkey is not up to the mark yet. The purpose of this study is to develop and explore an assessment instrument to measure the impulsive buying tendency, and to provide a source for further studies on impulsive buying in Turkey. In this respect, it is aimed to conduct the validity and reliability studies for the Turkish adaptation of Rook and Fisher's (1995) impulsive buying scale.

## **Method**

### **Scale of the research**

All randomly chosen 800 consumers participating in the study live in Mersin city centre. 341 consumers in the sample are males (42.6%) and 459 are females (57.4%). The data collection procedure was conducted with face-to-face interviews in front of the shopping centres (Karasar, 1994).

### **Data Collection Tool**

The Turkish adaptation of the "Impulsive Buying Scale" developed by Rook and Fisher (1995) was used in the study. Impulsive buying scale comprises of 9 items and it is answered with a five-point Likert scale. During the assessment of each answer by the participants, 5 points were given to "Strongly Agree", 4 points to "Agree", 3 points to "Neither agree nor disagree", 2 points for "Disagree" and 1 point for "Strongly Disagree". Thus, the highest score a participant could get from the impulsive buying scale would be 45. The lowest would be 9. Since any validity and reliability study for the Turkish version of the scale could not be found, these studies were conducted by the researchers.

In the first step, 5 senior students, studying at the Mersin University English Language and Literature Department were given a form to translate the "Impulsive Buying Scale" into Turkish. Five forms, collected from the students, were integrated into one single form by the researchers. As the second step, the form, comprising of 45 items, was translated into English by an English teacher. In the last step, the items, which were translated into English by the English teacher, as the original English versions, were considered as the most appropriate Turkish adaptation of the "Impulsive Buying Scale."

## Validity and Reliability Studies of the Impulsive Buying Scale

### Validity

In order to understand the power of the impulsive buying scale to measure the intended, the construct validity was conducted on all the data. To collect data for construct validity, the “rotation of principal components” was used. The compliance of the data for the factor analysis was tested with the Kaiser-Meyer-Olkin (MKO) coefficient and Bartlett Sphericity test (Conner et al., 2007; Hair et al., 2006; Howell, 1982; Roscoe, 1975; Walker et al., 1969.) KMO is a statistical test used to determine whether data and sample size are appropriate and sufficient for the selected analysis. If the KMO converges to 1, it means the data are appropriate for the analysis, and if it is 1, it means a perfect fit is present.

**Table1:** Impulsive Buying Scale Item Analysis

Items	FL	AM	SD
1. I often buy things spontaneously	0.78	3.71	1.22
2. “Just do it” describes the way I buy things	0.88	3.11	1.57
3. I often buy things without thinking	0.85	3.27	1.51
4. “I see it. I buy it” defines me	0.78	3.62	1.34
5. “Buy now. think about it later” describes me	0.87	3.12	1.55
6. Sometimes I feel like buying things on the spur-of-the moment.	0.75	3.87	1.25
7. I buy things according to how I feel at the moment	0.75	3.79	1.23
8. I carefully plan most of my purchases (Reverse Coding)	0.52	3.70	1.34
9. Sometimes I am a bit reckless about what I buy	0.83	3.56	1.29
Total Variance Explained:	61.55		
Arithmetic Mean:	31.74		
Standard Deviation:	9.62		
Variance:	92.61		
Individuals(N):	800		
FL: Factor Load AM: Arithmetic Mean SS: Standard Deviation			

According to the analysis, the KMO value was found 0.925. In order to use the parametric method, the measured feature should exhibit normal distribution in the sample. *Bartlett Sphericity* test is a statistical technique that can be used to control whether the multivariate data come from a normal distribution or not.

The *Chi-square* results being statistically significant, at the end of this test, is an indicator that the data are from a multivariate normal distribution. The Bartlett test was found statistically significant at the end of the analysis in the study ( $\chi^2= 4819.619$ ;  $p<0.01$ ). To attain a statistically significant construct on the impulsive buying tendencies of the consumers, factor analysis was conducted to reveal the structure or structures, which are called the factors or

components, measured by the scale items. (Conner et al., 2007; Hair et al., 2006; Howell, 1982; Knoke et al., 1994; Roscoe, 1975; Walker et al., 1969.)

At the end of the factor analysis, the scale comprising of 9 items formed a single factor construct with the eigenvalue over 1. In this 9 items single factor construct, the eigenvalue belonging to the factor providing information about the significance level and weight, was found 5.54. This factor, alone, explains the 61.558% of the total variance in the impulsive buying tendency. The factor loads for the items comprising the scale vary between 0.51 and 0.88 (Table-1). All these findings are used as a proof that the scale has satisfactory construct validity. The item test correlations were calculated with regard to the item validity and homogeneity of the scale. As a result, the item test correlations of the scale vary between 0.44 and 0.84. All these findings are considered as a proof that the scale items are valid and they all measure the same construct (Conner et al., 2007; Hair et al., 2006; Howell, 1982; Knoke et al., 1994; Roscoe, 1975; Walker et al., 1969.)

**Reliability**

To understand how accurate the impulsive buying scale measures what it should measure, a reliability study was conducted. In this respect, the Cronbach’s Alpha reliability test, item-test correlation analysis and the comparison of the 27% lower-upper group were conducted with regard to the reliability and homogeneity of the scale. All these findings are presented in Table-2.

The Cronbach’s Alpha reliability of the whole test is 0.919. Scores equal to or higher than 0.30 in the interpretation of the item total correlation, prove that they differentiate the individuals better with regard to the measured feature. The item total correlations of the impulsive buying scale are between 0.44 and 0.84. This indicates that the items are distinctive with regard to the impulsive buying tendency. The 27% lower-upper group analysis was found statistically significant for all items. All these findings are used as a proof that the scale has satisfactory reliability (Conner et al., 2007; Hair et al., 2006; Howell, 1982; Knoke et al., 1994; Roscoe, 1975; Walker et al., 1969.)

**Table 2: Item-Total Correlations of the Impulsive Buying Scale**

Item No	Item-Total Correlation	%27 lower-upper group (t)
1	.706	29.75***
2	.833	55.97***
3	.800	39.67***
4	.710	30.14***
5	.823	49.92***
6	.674	24.33***
7	.676	26.17***
8	.447	17.63***
9	.769	37.23***
*** P< .001		

## Analysis of Data

The analysis of data was conducted using the SPSS 13.0 Statistical Package for the Social Sciences (Field, 2005). The descriptive statistical techniques, reliability and validity analyses, independent samples t-test, and one-way analysis of variance were used in the analyses. The mean of the scores all 800 participants obtained from the impulsive buying scale is 31.74, and the standard deviation is 9.62. According to these results, it is thought that the impulsive buying tendencies of the participants are heterogeneous. Put it differently, the scale is distinctive between participants with high impulsive buying tendency and with low impulsive buying tendency.

To understand whether the impulsive buying tendencies of the participants varied with regard to sex, the independent samples t-test was conducted. Impulsive buying tendencies do not exhibit a statistically significant difference with respect to the sex variable ( $t_{(798)}=1.32, p>.05$ ). The age of the participants varies between 17 and 59. The age variable was separated into two categories, considering the literature, to investigate the effect of the variable on impulsive buying tendency. The first category comprised of participants between 17 and 29, and the second category comprised of participants between 30 and 59. To understand whether the impulsive buying tendencies varied with regard to age variable, the independent samples t-test was performed. According to the result of the analysis, impulsive buying tendency shows a statistically significant difference with respect to age variable ( $t_{(798)}=16.895, p<.01$ ). The impulsive buying tendencies of participants who are 30 or older ( $\bar{X}=35.947$ ), significantly higher than the participants who are 29 or younger ( $\bar{X}=26.331$ ). The joint effect of the age and sex variables was examined and any statistically significant difference could not be found [ $F_{(1-796)}=2.763, p>.05$ ]. However, the Scheffe analysis was conducted on the results of the multiple comparison between cells test, to capture the variance between the impulsive buying tendencies. At the end of the analysis, the impulsive buying tendencies of female participants who are younger than 30 ( $\bar{X}=27.338$ ) are significantly higher than male participants who are younger than 30 ( $\bar{X}=24.821$ ). Any statistically significant difference could not be found between male participants who are 30 or older ( $\bar{X}=35.661$ ) and female participants who are 30 and older ( $\bar{X}=36.177$ ).

To understand to what extent the impulsive buying behaviours varied with regard to education status, a one-way variance analysis was conducted. At the end of the analysis, the education status significantly affects the impulsive buying tendency [ $F_{(5-794)}=44.34, p<.01$ ]. According to the results of the Scheffe analysis, the impulsive buying tendencies of the participants with university degree ( $\bar{X}=27.291$ ) was found significantly lower than the participants with high school degree ( $\bar{X}=34.891$ ), with secondary school degree

( $\bar{X}=38.756$ ), with primary school degree ( $\bar{X}=35,727$ ), and who are literate only ( $\bar{X}=34$ ); any significant difference could not be with participant who are not literate. The impulsive buying tendencies of participants with high school degree ( $\bar{X}=34.891$ ) are significantly lower with regard to the participants with secondary school degree ( $\bar{X}=38,756$ ); and significantly higher with regard to the participants who are not literate ( $\bar{X}=23.154$ ) and who have university degree ( $\bar{X}=27.291$ ). There is not any statistically significant difference between participants with primary school degree and participants who are not literate or with high school degree. The impulsive buying tendencies of participants with a secondary school degree ( $\bar{X}=38.756$ ) are significantly higher than the participants with high school degree ( $\bar{X}=34.89$ ), with university degree ( $\bar{X}=27.291$ ) and who are not literate ( $\bar{X}=23.154$ ) There is not any statistically significant difference between the participants with primary school degree and participants who are literate only or with secondary school degree. The impulsive buying tendencies of participants with primary school degree ( $\bar{X}=35.727$ ) and who are literate only ( $\bar{X}=34$ ) are significantly higher than the participants with university degree ( $\bar{X}=27.291$ ) and who are not literate ( $\bar{X}=23.154$ ).

To understand whether there is a significant difference in impulsive buying tendencies of the participants with regard to their monthly income, one-way analysis of variance was conducted, and a statistically significant difference was found at the end [ $F_{(3-796)}= 39.563, p<.05$ ]. The impulsive buying tendencies of participant with a monthly income less than 800YTL ( $\bar{X}=28.936$ ) are significantly lower than the participant with a monthly income between 801YTL and 1600YTL ( $\bar{X}=36.215$ ), between 1601YTL and 2400YTL ( $\bar{X}=35.928$ ), and more than 2401YTL ( $\bar{X}=34.037$ ). Any statistically significant difference could not be found between the impulsive buying tendencies of participant with a monthly income more than 2401YTL, and participant with a monthly income between 801YTL and 1600YTL, and between 1601YTL and 2400YTL. At the same time, there is not any statistically significant difference between the impulsive buying tendencies of participant with a monthly income between 1601YTL and 2400YTL, and participants with a monthly income more than 2401YTL.

The independent samples t-test was conducted to calculate to what extent the impulsive buying tendencies of participants who have a credit card differed from the participants who do not have a credit card. At the end of the analysis, it was found that having a credit card or not created a statistically significant difference with regard to the impulsive buying tendencies ( $t_{(798)}=12.584, p<.01$ ). The impulsive buying tendencies of the participants who have a credit card ( $\bar{X}=32.913$ ) are statistically higher than the participants who do not have a credit card ( $\bar{X}=24.611$ ). When the joint effect of sex and

having a credit card is examined, any statistically significant difference could not be found [ $F_{(3-796)} = 6.095, p > .05$ ]. However, the Scheffe analysis was conducted on the results of the multiple comparison between cells test, to capture the variance between the impulsive buying tendencies with regard to sex and having a credit card. According to the results of the analysis, the impulsive buying tendencies of the male participants who have a credit card ( $\bar{X} = 32.144$ ) are found significantly higher than the male participants who do not have one ( $\bar{X} = 23.306$ ). Similarly, the impulsive buying tendencies of female participants who have a credit card ( $\bar{X} = 33.526$ ) are found significantly higher than the female participants who do not have one ( $\bar{X} = 25.221$ ). On the other hand, any statistically significant difference could not be found between male and female participants who do not have a credit card. Any statistically significant difference could not be found between male and female participants who do have a credit card either.

The t-test was conducted to understand if impulsive buying tendencies vary with regard to whether the purchase decision was given before going shopping or afterwards. At the end of the t-test, it was found that there was a statistically significant difference in impulsive buying tendencies, considering the time the purchase decision was made ( $t_{(798)} = 15.342, p < .01$ ). In other words, the impulsive buying tendencies of participants who decide what to buy during shopping ( $\bar{X} = 35.516$ ) are significantly higher than the participants who decide what to buy before going shopping ( $\bar{X} = 25.833$ ).

## Discussion

This study is conducted to develop a valid and reliable assessment tool or measuring the impulsive buying tendencies of consumers. In this respect, to render the Turkish adaptation of Rook and Fisher's (1995) scale, the validity and reliability of the "Impulsive Buying Scale" are tested. The scale comprises of 9 items. At the end of the "rotation of principle components" test, a construct, comprising of a single dimension, is obtained. The item test correlations are calculated to provide additional proof to the item validity and homogeneity of the scale. The Cronbach's Alpha reliability test and the comparison of the 27% lower-upper group are conducted to support the reliability of the scale (Fossati et al., 2015). The findings pertaining to the validity and reliability of the scale indicate that the scale is utilisable to determine the impulsive buying tendencies of consumers.

The impulsive buying tendencies of the consumers participated in the study do not change with regard to sex. The previous studies showed that women do more impulsive buying than men, and the type of the products impulsively purchased vary with reference to sex. It is seen that men tend to buy instrumental goods (technological, sportive, etc.), while women tend to buy emotional goods (cosmetics, clothing, etc.) (Dittmar et al., 1995). The lack

of difference between male and female consumers in this study suggest that impulsively purchased goods differ with respect to sex and both sexes have the impulsive buying tendencies. In addition, the analysis of the data suggests a significant difference in impulsive buying tendencies between male and female consumers, who are between 19 and 29 years of age, while there is not any significant difference in impulsive buying tendencies between male and female consumers who are between 30 and 59. When this finding is considered together with the finding that consumers with a monthly income more than 800YTL have an impulsive buying tendency higher compared to the consumers with a monthly income less than 800YTL, it is thought that the impulsive buying tendencies of male and female consumers who are 30 and older do not differ since these individuals had their economic independence and have relatively higher monthly income. Because, consumers with high income have a greater tendency towards impulsive buying. Betty and Ferrell (1998) argued that consumers, which had enough money tended to do impulsive buying more than the consumers, which did not have enough money; and the belief that the consumers had extra money in their budget caused to do impulsive buying. The impulsive buying tendencies of participants with university degree is lower than the participants with high school degree, participants with secondary school degree or participants with primary school degree or participants who are literate only. The impulsive buying tendencies of the participants with a high school degree is lower when compared to the participants with secondary school degree and participants with primary school degree. In addition, the impulsive buying tendencies of participants with secondary school degree, participants with primary school degree and participants who are literate only do not differ. In the light of all these data, it is seen that the impulsive buying tendencies decrease as the education level increases. Even though there is not any significant difference between the impulsive buying tendencies of participants with secondary school degree and participants who are literate only, the impulsive buying tendencies decrease as the education level increases.

The shopping centres, which are organised to fulfil all kinds of needs, has become places where people enjoy spending their time. The individuals prefer large shopping centres and thus render their mood positive and be happy (Beatty and Ferrell, 1998). Increasing positive emotions may call forth the behaviour of unplanned buying during the time spent in the shopping centre. Rook and Gardner (1993) found that impulsive buying increased in consumers who had positive emotions during shopping. It is thought that large shopping centres, which have become preferred places to spend time today, have an impact on the buying behaviour of the consumers. It is also found that impulsive buying is related to whether the consumer decided buying at the store or before going shopping. The shopping centre, most probably visited

just to spend time, creates the thought in the consumers that they need the product they see, and cause impulsive buying. Consumers who decide to buy during shopping have greater impulsive buying tendencies than the consumers who decide what to buy before going shopping.

Beatty and Ferrell (1998) asserted that the impulsive buying tendency increased when the consumers thought that they had extra money. While use of credit cards provide many advantages today, it also brings along many disadvantages. Especially, high credit limits give a feeling that the consumers have extra money, and enable them to have what they wished to get. The findings of the study indicate that the impulsive buying tendencies of customers who have a credit card is higher than the customers who do not have one. This result means that having a credit card increases the consumers' tendencies towards buying without thinking.

*“Although several studies have highlighted the severe negative outcomes caused by compulsive buying (CB), the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders as well as the International Statistical Classification of Diseases and Related Health Problems 10th Revision do not consider CB a disorder due to insufficient empirical research in this field (Lam et al., 2018)”*

This study brought (the Turkish adaptation of) the impulsive buying scale in the literature. However, evidence should be sought that the impulsive buying scale would yield similar results in similar groups, and the confirmatory factor analyses should be conducted. Thus, advanced reliability analyses for the impulsive buying scale would be obtained. It is thought that the number of studies on impulsive buying in Turkey would increase with this study. Accordingly, the companies would develop strategies to increase their sales, as objective data is obtained.

## References:

1. Beatty, S., Ferrel, E. M. (1998). “Impulse Buying Modeling Its Precursor,” *Journal of Retailing*, Volume 74, p. 169-191
2. Bellenger, D. N., Robertson, D. H., Hirschman, E. C. (1978) “Impulse buying varies by product,” *Journal of Advertising Research*, 18, 15–18.
3. Bratko D., Butkovic A., Bosnjak M. (2013) “Twin Study of Impulsive Buying and its Overlap with Personality”, *Journal of Individual Differences*, Vol. 34(1): 8-14
4. Conner K.R., Houston, R.J., Sworts L.M., Meldrum S. (2007) “Reliability of the Impulsive–Premeditated Aggression Scale (IPAS) in treated opiate-dependent individuals,” *Addictive Behaviors*, 32(2007), 655-659

5. Ditmar, H., Jane B., Susanne F. (1995). "Objects, Decision Considerations and Self-Image in Men's and Women's Impulse Purchases,". *Journal Of Consumer Psychology*, 255-267.
6. Field, A. (2005) *Discovering Statistics Using SPSS*, Second Edition, Sage Publications Ltd., UK.
7. Fossati, A., Somma, A., Karyadi K.A., Cyders, M.A., Bortolla, R., Borroni, S., (2015). "Reliability and validity of the Italian translation of the UPPS-P Impulsive Behavior Scale in a sample of consecutively admitted psychotherapy patients", *Personality and Individual Differences*, 91(2016), 1-6
8. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tahtam, R.L. (2006). *Multivariate Data Analysis*, Sixth Edition, Pearson Prentice Hall, Upper Saddle River, New Jersey, 07458.
9. Herabadi, A.G., Verplanken, B., & Knippenberg, A. (2009). "Consumption experience of impulse buying in Indonesia: Emotional arousal and hedonistic considerations", *Asian Journal of Social Psychology*, 12, 20–31.
10. Howell, D.C. (1982) *Statistical Methods for Psychology*, Duxbury, PWS Publishers, Boston, Massachusetts, 02116.
11. Kacen, J. J., J.A. Lee (2002), "The Influence of Culture On Consumer Impulsive Buying Behavior", *Journal Of Consumer Psychology*, 163-176
12. Karasar, N., (1994). *Bilimsel Araştırma Yöntemi: Kavramlar, İlkeler, Teknikler*. 6. Basım, 3A Araştırma Eğitim Danışmanlık, Ankara.
13. Knoke, D., Bohrnstedt, G.W. (1994) *Statistics for Social Data Analysis*, Third Edition, F.E. Peacock Publishers Inc., Itasca, Illinois.
14. Kollat, D. T., Willett R.P. (1967). "Consumer Impulse Purchasing Behavior,". *Journal of Marketing Research*, 4 (2), 21-31.
15. Lam S.C., Chan Z.S., Chong A.C., Wong W.W., Ye J.W. (2018) "Adaptation and validation of Richmond Compulsive Buying Scale in Chinese population", *Journal of Behavioral Addictions*, 7(3), 760-769
16. Müftüoğlu, D. (2004). *Ekonomik Kriz Dönemlerinde Anlık Alışveriş Yapan Tüketicileri Diğer Tüketicilerden Ayıran Özellikleri Belirlemeye Yönelik Bir Uygulama*. Yayınlanmamış Yüksek lisans tezi, Çukurova Üniversitesi, Adana.
17. Piron, D. (1991). "Defining impulse purchasing". *Advances in Consumer Research*, 18, 509-513
18. Rascoe, J.T. (1975) *Fundamental Research Statistics for Behavioral Sciences*, HRW, New York.
19. Rook, D. W. (1987). "The buying impulse," *Journal of Consumer Research*, 14, 189–199.

20. Rook, D. W., Fisher, R. J. (1995). “Normative influences on impulsive buying behavior”. *Journal of Consumer Research*, 22, 305–313.
21. Rook, D.W., Gardner, M. (1993). “In the mood: Impulse buying’s affective antecedents,” *Research in Consumer Behavior* (Vol. 6, pp. 1–28). Greenwich, CT: JAI Press.
22. Rook, D.W., Hoch, S. J. (1985). “Consuming impulses,” In Morris Holbrook and Elizabeth Hirschman (Eds.), *Advances in Consumer Research* (Vol. 12, pp. 23–27).
23. Stern, H. (1962). “The Significance of Impulse Buying Today,” *Journal of Marketing*, 26 (4), 59-62.
24. Verplanken, B., & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of Personality*, 15, S71–S83.
25. Verplanken, B., Herabadi, A.G., Perry, J.A., Silvera, D.H. (2005). “Consumer style and health: The role of impulsive buying in unhealthy eating”, *Psychology and Health*, 20, 429–441.
26. Verplanken, B., Sato, A. (2011). “The psychology of impulse buying: An integrative self-regulation approach”, *Journal of Consumer Policy*, 34, 197–210.
27. Walker, H.M., Lev, J. (1969). *Elementary Statistical Methods*, HRW, New York.