

Extending TRA Understanding Compulsive Buying Behaviour

JALEES, T. ^{a*} AND RAZA, A. ^b

*^aKarachi Institute of Economics and Technology,
Korangi Creek, Karachi, 75190*

^bIOBM Karachi 75190, Pakistan

ABSTRACT

Compulsive buying has become a problematic issue in Pakistan and world-over. Most of the earlier studies on it are not based on theoretical grounding. In view of this gap this paper aims to extend the Theory of Reasoned Action (TRA) to measure the effects of materialism, interpersonal influence, perceived self-image and self-esteem on compulsive buying. Additionally, this paper will also measure the effect of interpersonal influence on materialism. Valid sample size was 525 collected through mall intercept methods. The overall model SEM fitted very well. The empirical results show that materialism, influence of others and perceived self-image have positive and significant effects on compulsive buying behaviour. On the other hand self-esteem has a significant negative effect on compulsive buying behaviour. Additionally, it was also found that materialism also positively effects perceived self-image. Marketers and policy makers while encouraging consumerism must portrait balance picture in order to discourage the above found tendencies that effect compulsive buying.

Keywords: Compulsive buying, materialism, self-image, self-esteem

JEL Classification: M0; M1; M3

*Corresponding author: Email : tariquej2004@yahoo.com

INTRODUCTION

Excessive buying has become a problematic issue world over and despite all the efforts of policy makers it is still increasing (Weinstein, Mezig, Mizrachi, & Lejoyeux, 2015). Materialistic people with high perceived self-image are more concerned for possessing and displaying their wealth due to which buying is becoming their obsession consequently they tend to ignore their family's and society's wellbeing (L. Koran, Faber, Aboujaoude, Large, & Serpe, 2006; Weinstein *et al.*, 2015). Studies on compulsive buying behavior have been carried out in conjunction with social image, life event, social capital, materialism, normative, stress perspectives, and self-esteem (Ahmed, 2014; Brook, Zhang, Brook, & Leukefeld, 2015). Researchers since decades are making efforts to understand the causes and consequences of the undesirable obsession with no consensus on the issue. Additionally, most of these studies have not adequately explored why and how these habits develop (Richins & Chaplin, 2015).

Despite the above significance, only a few have based their studies on theoretical grounding. Thus in view of this gap, we in this study have extended the Theory of Reason Action (TRA) (Fishbein & Ajzen, 2010) to measure the influence of materialism, self-esteem, and perceived self-image on compulsive buying. Additionally, the developed conceptual framework will also measure the effect of perceived self-image on materialism.

The contribution of this paper is that it has successfully extended and empirically tested the developed model based on the Theory of Reasoned Action, which has removed the apprehension of the author of TRA (Ajzen, 1991) that it might run into problems if extended to other culture. Additionally, the constructs developed in Western countries have been individually validated and also empirically tested on a composite model based on TRA, thus increasing their generalizability.

LITERATURE REVIEW

Theoretical Grounding

The conceptual framework for this study has been extended through the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 2010) mainly because of its flexibility, diversity and adequateness in explaining attitudinal behavior. TRA states that individual's behavioral intention leads towards actual behavior. Additionally, subjective norms and attitude governs behavioral intention (Ajzen, 2015; Shaw, Shiu, & Clarke, 2015).

Each component of the developed conceptual framework relates to TRA as follows: Compulsive buying behavior has been explained through behavioral intention. Self-esteem and being internal factor has been routed through attitude. Materialism, influence of others and perceived self-image being external factors have been explained through subjective norms. Additionally, the relationships depicted in the conceptual framework (Refer to Figure 2) have also been augmented with the relevant literature support. It may be noted that influence of others and interpersonal influence in this study have been used interchangeably. Similarly, perceived self-image and perceived social image have also been changed interchangeably.

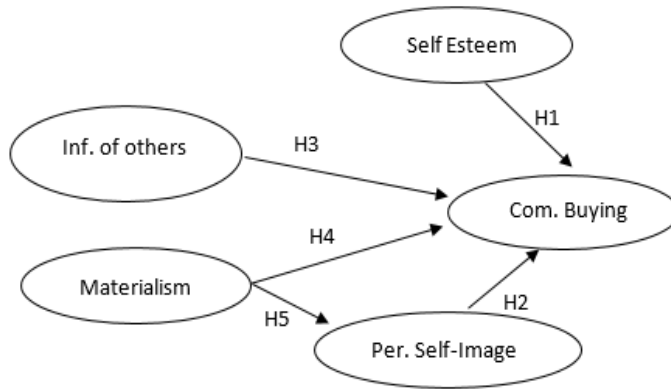


Figure 1: Conceptual Model

Compulsive Buying Behavior

Compulsive buying refers to an abnormal, unnecessary and excessive shopping behavior in which affected individuals have uncontrollable, chronic and repetitive desire (urge) for spending excessively for removing stress and negative feeling (Edwards, 1993). Compulsive buyers thus tend to compensate their suffering of stress and frustration by restoring to excessive buying (L. M. Koran & Aboujaoude, 2014). The three core feature of compulsive buying are consumer's irresistible urge to buy, lack of control when buying, and their continued involvement in buying by ignoring its ill effects on their personal and social life (Dittmar, Long, & Bond, 2007)

Compulsive buying due to its chronic, repetitive and uncontrollable behavior has become a problematic issue in Pakistan and across the world (Roberts, Manolis, & Pullig, 2014). Despite all the efforts of the government and policy makers the growth of compulsive buyers has not stalled world over (Roberts *et al.*, 2014; Wang & Jing, 2015).

Different researchers have different opinions on what promote compulsiveness. For example, some researchers found significant relationships between demographic and psychological factors with compulsiveness (Raab, Elger, Neuner, & Weber, 2011; Rosen, Whaling, Rab, Carrier, & Cheever, 2013). Others are of the opinion that that people with less self-control, and low self-esteem are victim to this chronic behaviour (Raab *et al.*, 2011). Researchers since decades are attempting to study the causes and consequences of the undesirable obsession but no consensus on the issue has been arrived. Additionally, there is little knowledge on how these habits develops (Richins & Chaplin, 2015). Thus the Theory of Reasoned Action (TRA) in this paper has been extended to understand consumer attitude and behaviour towards compulsive buying.

Self Esteem and Compulsive Buying (H1)

Individual's self-perception about his/her self-worthiness in terms of skills, abilities and self-belief is referred as self-esteem. Self-concept and self-esteem although are used interchangeably but conceptually they differ significantly (Marshall *et al.*, 2015). Self-concept besides being more generic, it is considered as individual's cognitive belief in terms of his/her occupation

values and belief (Hutteman, Nestler, Wagner, Egloff, & Back, 2015). Self-esteem on the other hand is more specific and relates to self-worthiness or unworthiness (Marshall *et al.*, 2015).

Earlier studies maintain that individual with high level of compulsiveness for buying have low level of self-esteem which they try to enhance by purchasing prestige good. Thus low self-esteem individuals have low reliance on self-competency (Weinstein *et al.*, 2015). Individuals with low self-esteem worries about their self-image, and physical attributes. These concerns make them vulnerable to unending purchasing tendencies (Goldsmith, Flynn, & Goldsmith, 2015). Studies in this context also found that individuals with wide gap between desired-self and actual-self have low self-esteem which they bridge this gap by purchasing symbolic goods (Filomensky & Tavares, 2015). Since individuals with low self-esteem have low self-control towards excessive purchasing therefore they feel guiltier about their habits of excessive purchasing and often resort to excessive purchasing to uplift their guilt (Dittmar & Drury, 2000; Flight & Sacramento, 2015).

H1: Self-esteem inversely effect compulsive buying behavior

Perceived Self- Image and compulsive buying (H2)

Perceived self-image or perceived social image in this study have been used interchangeably. It is operationalized as an individual perception about being superior and rich in a social setting. It also shows others perception on the individuals standard of living (Elliott, 1994). Comparatively, self-esteem is consumer's self-perception about his/her worthiness (Claiborne & Sirgy, 2015)

Previous studies have validated that individuals who are more concerned about their perceived self-image have a tendency to reduce variation between actual-self and desired-self through excessive buying (Marquardt, Gantman, Gollwitzer, & Oettingen, 2016). Others on the relationship of perceived self-image and compulsive buying also found that individuals with discrepancy between self-definition will restore to compulsive buying for improving self-image (Gollwitzer, Wicklund, & Hilton, 1982; Mandel, Rucker, Levav, & Galinsky, 2016). Since individual concerned about their perceived social image are more motivated about enhancing their status therefore they keep buying those products and brands that might improve their images (Başar, Türk, & Ünal, 2015). These individuals think that purchasing expensive products and brands will uplift their status therefore they keep purchasing them which further aggravate their compulsive buying tendencies (Gollwitzer *et al.*, 1982; Mandel *et al.*, 2016).

H2: Perceived self-image inversely affect compulsive buying behavior

Influence of Others and Compulsive Buying Behavior (H3)

Influence of others or interpersonal influence is a kind of social influence in which groups members encourage conformity and discourage nonconformity (Leary, Vann, & Groza, 2016). In this paper this definition is operationalized on the basis of normative and informative influences. Former is the influence of peers, society and culture, whereas later is the influence based on information solicited by individuals (Fornara, Pattitoni, Mura, & Strazzera, 2016).

Studies on the relationship between interpersonal influence and compulsive buying was initiated as early as 1960s (Grougiou, Moschis, & Kapoutsis, 2015). In subsequent years, several researchers empirically demonstrated that interpersonal influence affects compulsive buying behavior (Roberts, 1998; Tan, Chen, & Theng, 2015). They however also observed that this effect varies from one product category to other, and from one person to other (Jalees, Tariq, Alam Kazmi, & Zaman, 2015). Both informative and normative influence affects compulsive buying behavior, individually and on aggregate basis (Lee, Wilson, Eggleston, Gilbert, & Ku, 2015). Others while validating this argument also observed individuals due to interpersonal influence and to impress others often turns to excessive buying (Kropp, Lavack, & Silvera, 2005). Informative person gets influence and restore to excessive buying by going through bloggers and web pages. while normative person turns to excessive buying due to the influence of others (McGriff, Prater, & Kiser, 2015).

H3: Influence of others positively influences compulsive buying behavior.

Materialism and Compulsive Buying (H4)

Materialism in literature have been discussed extensively, individually and in conjunction with, compulsiveness, impulsiveness, and self-image (Araujo Gil, Leckie, & Johnson, 2016; Elliott, 1994). Materialistic people are more concerned in acquiring, possessing and displaying worldly possession, while giving more importance to physical comfort over spiritual values in their lives (Richins & Chaplin, 2015).

Consequently, their concern about display of worldly possessions make them addictive to buying. Obsession of worldly goods in materialistic people is so high that they keep buying goods irrespective of their needs (Boujbel & d'Astous, 2015; Tan *et al.*, 2015). While validating the relationship of materialism and compulsive buying it was found that materialistic people generally have low self-image, and lack satisfaction in general (Boujbel & d'Astous, 2015; Grougiou *et al.*, 2015). Others extending the framework of Dittmar & Drury (2000) suggested that materialistic people due to low self-image, turned to excessive buying assuming that these purchases will reduce the disparity between self-image and desired-image (Boujbel & d'Astous, 2015). A few studies also found that materialism as one construct influences compulsiveness, while other found that each of its items individually affects compulsive buying behavior (Araujo Gil *et al.*, 2016; Dittmar & Drury, 2000).

H4: Materialism positively influences compulsive buying behavior.

Materialism and Perceived Self Image (H5)

Studies based on the “Theory of Symbolic Self-completion” found that those individuals who feel discrepancy between “actual self and “desired self” will purchase those goods and services which will help them in satisfying their materialistic tendencies (Kukar-Kinney, Scheinbaum, & Schaefer, 2016). Others while confirming this phenomenon also observed that individuals who are not satisfied with their perceived social image will have negative self-esteem and a higher level of materialism tendency (Maraz, van den Brink, & Demetrovics, 2015; Quoquab, Mohammad, Rizal, & Basiruddin, 2015; Tang & Baker, 2016). Materialistic individuals are

more concerned about their perceived social image and conscious on how others see them. These tendencies lead toward excessive buying (Jalees *et al.*, 2015; Maraz *et al.*, 2015).

H5: Materialism positively Influences perceived self-image

METHODOLOGY

Scale and Measures

All the scale and measures have been adopted from the previous studies and are based on seven-point liker scale. Materialism scale with seven items has been adopted by the measure developed by Sirgy (1998). Reliabilities of this scale in earlier studies ranged between 0.75 to 0.78 (Sirgy, 1998; Yeniaras & Wilson, 2016). Self-esteem scale with 10 items was adopted from the measure developed by Rosenberg (1995). The reliability of this scale in earlier studies ranged between 0.77 to 0.92 (Rosen *et al.*, 2013; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Singh, 1995). Influence of others scale was adopted by measure developed by Bearden *et al.* (1989). The reliabilities for this scale in earlier studies were as high as 0.82 and 0.89 (Bearden, Netemeyer, & Teel, 1989; Grougiou *et al.*, 2015). Compulsive buying scale was adopted from the measure developed by Faber & O' Guinn (1992) with reliabilities in earlier studies ranged between 0.74 to 0.89 (Faber & O'guinn, 1992; Goldsmith *et al.*, 2015). Perceived image (social image) was adopted from the scale developed by Elliot 1994, and it has 4 items with realities ranging between 0.63 to 0.69.

Sample and Data Collection

Sample size for this study was 525 with a respond rate of 94%. Convenience sampling was used for collecting the data from the selected malls of Karachi. Of the total sample 40% were males, and 60% were females. 65% were married and the 35% were single. 45% were students, and 55% were employed. Most of the respondents belonged to middle income group (65%) and rest (35%) belonged to higher income strata.

Data Analysis

After preliminary analyses including normality, validity, reliability SEM exercise was carried out in two stages (Kline, 2015). First CFA for each construct was tested followed by CFA analysis of the hypothesized model. The Fit measures used for ascertaining the fitness of each construct and hypothesized model is presented in Table 1.

Table: 1 Fit Indices

	Absolute			Relative Fit Indices			Non centrality	
	χ^2	SRMR	Hoelter's	IFI	NFI	TLI	RMSEA	CFI
Criteria	Low	<.08	< 0.05	.90	> .95	> 0.95	> 0.06	> 0.93

RESULTS

Descriptive Analysis

Descriptive analysis was carried to measure internal consistency and Univariate normality, which are summarized in Table 2.

Table 2: Descriptive

	Reliability	Mean	Std. Dev.	Skewness	Kurtosis
Inf. of Others	.81	4.16	1.85	-0.15	-1.27
Self Esteem	.75	4.48	1.46	-0.25	-0.61
Com, Buying	.83	3.36	1.43	0.27	-0.90
Materialism	.76	3.80	1.34	0.19	-0.53
Per. Self-Image	.71	3.94	1.22	-0.02	-0.60

Table 2 shows that the reliability of compulsive buying behavior ($\alpha=.83$, $M= 3.36$, $SD= 1.43$) is the highest, followed by influence of others ($\alpha=.81$, $M= 4.16$, $SD= 1.95$), materialism ($\alpha=.76$, $M= 3.80$, $SD= 1.34$), self-esteem ($\alpha=.75$, $M= 4.48$, $SD= 1.46$) and perceived self-image ($\alpha=.71$, $M= 3.94$, $SD= 1.22$). Reliabilities of all the constructs are greater than ($\alpha=.71$.) indicating reasonable internal consistency (Leech, Barrett, & Morgan, 2005). Highest Skewness is for compulsive buying ($SKW= 0.27$, $M= 3.36$, $SD=1.43$), and the lowest is for perceived self-image ($SKW=- 0.02$, $M= 3.94$, $SD=1.22$). Similarly, highest Kurtosis is for influence of others ($KUR=-1.27$, $M= 4.16$, $SD=1.43$) and lowest Kurtosis is for materialism ($KUR=-0.53$, $M= 3.80$, $SD= 1.34$). Each value of Skewness and Kurtosis is between ± 1.5 , which indicates that the constructs fulfill Univariate normality requirements (Byrne, 2001).

Convergent Validity

Figure 2 shows that each indicator's factor loading is greater than $=.60$ and indices related to absolute, relative and parsimony are greater than fitness criterion (refer to figure 2) which shows each constructs is valid (convergent) (Kline, 2015)

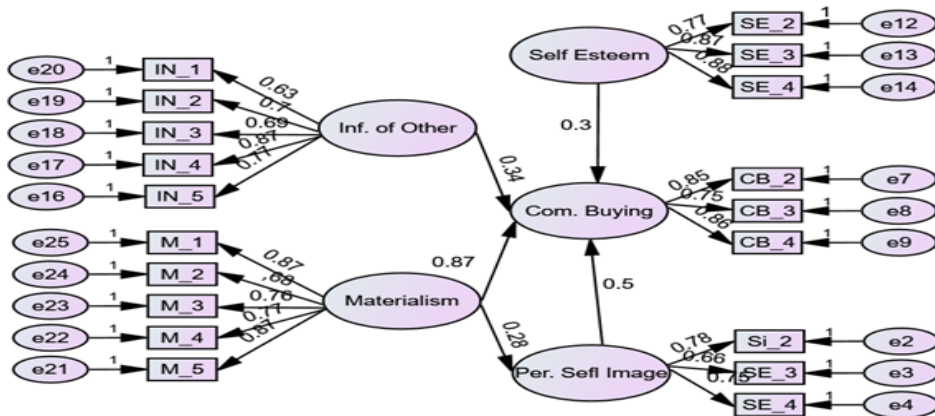


Figure 2: Final SEM Model

Discriminant validity

Since the square root of variance explained were greater than square of each pair of correlation it fulfills the requirements discriminate validity

Confirmatory Factor Analysis

The fit indices for each construct is within the prescribed limit, as depicted in Table 3.

Table 3: Confirmatory Factor Analysis

	Absolute			Relative Fit Indices			Non centrality-based Indices	
	χ^2	SRMR	Hoelter's	IFI	NFI	TLI	RMSEA	CFI
Materialism	01.937	.040	.045	.965	.987	.975	0.05	.997
Inf, of others	22.856	.034	.034	.923	.965	.955	0.04	.967
Self Esteem	01.456	.044	.023	.965	.955	.965	0.02	.957
Com. Buying	15.339	.070	.044	.943	.945	.992	0.03	.976
Criteria	Low	<.08	< 0.05	.900	> .95	> 0.95	> 0.06	> 0.95

Overall Model

The hypothesized model fitted very well as depicted in Table 4 and figure 2.

Table 4. Fit Indices of overall Model

	Absolute			Relative Fit Indices			Non centrality-based Indices	
	χ^2	SRMR	Hoelter's	IFI	NFI	TLI	RMSEA	CFI
Hyp. Model	19.67	.07	0.04	.93	.967	.987	.050	.965
Criteria	Low	<.08	< 0.05	.90	> .95	> .95	> 0.06	> .93

The three Absolute outputs ($\chi^2=19.67$, $p=.002<.05$) $SRMR=.07<.08$, and $Hoelter.04=<.05$) were with the prescribed criteria. All the relative Fit indices ($IFI=.93>.90$; $NFI=.967=>.95$, $TLI=.987>.95$) were also with the limit. Non-Centrality based indices ($RMSEA =.050<.06$, $CFI=.965>.95$) were also within the limit.

As hypothesized materialism, influence of others, perceived self-image and self-esteem positively effects compulsive buying behavior. Additionally, materialism also had a positive effect on perceived self- image.

Hypothesized Results

Summarized hypothesized results are presented in Table 3:

Table 5 Summary of Hypothesized Relationships

	SRW*	SE	CR	P
Materialism-----> Compulsive buying (H1)	.39	.29	5.76	0.01
Influence of others----- > Compulsive Buying (H2)	.34	.15	4.78	0.03
Self Esteem ----- > Compulsive Buying (H3)	-.30	.19	4.98	0.02
Perceived Self Image ----- >Compulsive Buying (H4)	.32	.10	2.55	0.03
Materialism----- > Perceived Self Image (H5)	.28	.19	1.99.	0.04

Table 5 shows that materialism (SRW= 0.39, CR=5.76, $p = 0.01 < .05$) was the strongest predictor of compulsive buying, followed by Influence of others (SRW= 0.34, CR=4.78, $p = 0.03 < .05$); Perceived self-Image (SRW= 0.32, CR= 2.55, $p = 0.03 < .05$), and self-esteem (SRW= 0.30, CR= 4.98, $p = 0.02 < .05$) Also materialism (SRW= 0.28, CR= 1.99, $p = 0.04 < .05$) influence perceived self-image.

DISCUSSION AND CONCLUSION

Discussion

The model based on the Theory of Reasoned Action (TRA), and with the support of relevant literature was successfully extended in eastern culture by empirically testing through SEM on the present set of data and it was found to be relevant in explaining consumer attitude towards compulsive buying behaviour. The study's empirical results show that materialism, influence of others and perceived self-image have positive and significant effects on compulsive buying behaviour. Whereas self-esteem has a significant negative effect on compulsive buying behaviour. Additionally, it found that materialism also positively effects perceived self-image.

The findings based on a sample of 525 administered in Karachi and tested through SEM supports those of Lee et.al (2015); Mandel et.al (2016); McGriff et.al (2015); Araujo Gil et al (2016) & Dittmar & Drury (2000); and Maraz et al (2015).

The variables of the model thus in combination being predictors of compulsive buying behavior will help in identifying individuals who are more vulnerable to compulsive buying. Individuals possessing characteristic including materialism, influence of others, and perceived self-image might be more vulnerable to this compulsive buying behavior. Individuals due to exposure to media, and influence of their peer's groups and perceived self-image turns to repetitive buying which leads to compulsive and addictive buying behavior Mandel et.al (2016).

Two major contributions of this study are: The model based on the theory of TRA has been successfully extended in Easter culture like Pakistan, and thus have removed the apprehension of the author of the theory (Ajzen, 1991) that it might run into problems if extended to other culture. The other contribution of this study is that it has increased the generalizability of the constructs used in the developed country by validating them in the foreign culture and empirically testing them on the composite model.

Conclusion and Implications

Since the materialism, self-image and interpersonal influence affects promote compulsive buying which hurts individuals and society as a whole. Therefore, the marketers while promoting consumerism should balance their messages by communicating positives and negative aspects of consumerism (Yurchisin & Johnson, 2004). These materialistic, interpersonal influences, perceived self-images are developed in culture and society over a period of time. So the educators, family members, and peer groups must also play their due role for ensuring that they do not deliberately or indirectly not promote these traits. Also the study found that self-esteem has negative effect on compulsive buying. So the focus of the policy makers should be on enhancing the self-esteem of individual through television messages and other public service messages. Additionally, the focus of luxury products should be more on the functional aspects of the brand and products. Advertisements promoting self-image, interpersonal influence and materialism must be discouraged.

Limitation

Study was restricted to middle and upper middle class strata; future studies could incorporate other income groups. Variation of attitude towards compulsive buying was found by demographic factors future studies could incorporate the same. Multicultural aspects could be incorporated in future studies. The conceptual framework for this study is based on TRA. Future studies could incorporate other theories in their conceptual framework.

REFERENCES

- Ahmed, N. (2014). "The Relationship among Vanity Trait, Shopping Values & Compulsive Buying: An Evidence from University Shoppers." *European Journal of Business and Management*, Vol. 6 No. 28, pp. 160-170.
- Ajzen, I. (1991). "The theory of planned behavior." *Organizational behavior and human decision processes*, Vol. 50 No. 2, pp. 179-211.
- Ajzen, I. (2015). "The theory of planned behaviour is alive and well, and not ready to retire: a commentary on Sniehotta, Presseau, and Araújo-Soares." *Health Psychology Review*, Vol. 9 No. 2, pp. 131-137.
- Araujo Gil, L., Leckie, C., & Johnson, L. (2016). "The impact of self on materialism among teenagers." *Journal of Consumer Behaviour*. Vol. 15 pp. 281-288
- Başar, E. E., Türk, B., & Ünal, S. (2015). "An Investigation of Self-Image Congruence Differences Between Materialistic and Non-Materialistic Consumers." *Bogazici Journal: Review of Social, Economic & Administrative Studies*, Vol. 29, no. 2, pp. 41-57.
- Bearden, W. O., Netemeyer, R. G., & Teel, J. E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of consumer Research*, Vol. 15, No. 4, pp. 473-481
- Boujbel, L., & d'Astous, A. (2015). Exploring the Feelings and Thoughts that Accompany the Experience of Consumption Desires. *Psychology & Marketing*, Vol. 32 No. 2, pp. 219-231.

- Brook, J. S., Zhang, C., Brook, D. W., & Leukefeld, C. G. (2015). Compulsive buying: Earlier illicit drug use, impulse buying, depression, and adult ADHD symptoms. *Psychiatry research*, Vol. 228 No. 3, pp. 312-317.
- Byrne, B. M. (2001). *Structural Equation Modeling with AMOS Basic Concepts, Application and Programming* New Jersey: Lawrence Erlbaum Associates.
- Claiborne, C. B., & Sirgy, M. J. (2015). "Self-image congruence as a model of consumer attitude formation and behavior: A conceptual review and guide for future research." In *Proceedings of the 1990 Academy of Marketing Science (AMS) Annual Conference* (pp. 1-7). Springer International Publishing.
- Dittmar, H., & Drury, J. (2000). "Self-image—is it in the bag? A qualitative comparison between "ordinary" and "excessive" consumers." *Journal of Economic Psychology*, Vol. 21 No. 2, pp. 109-142.
- Dittmar, H., Long, K., & Bond, R. (2007). "When a better self is only a button click away: associations between materialistic values, emotional and identity-related buying motives, and compulsive buying tendency online." *Journal of Social and Clinical Psychology*, Vol. 26 No. 3, pp. 334-361.
- Edwards, E. A. (1993). "Development of a new scale for measuring compulsive buying behavior." *Financial counseling and planning*, Vol. 4 No. 1, pp. 67-84.
- Elliott, R. (1994). "Addictive consumption: function and fragmentation in postmodernity." *Journal of Consumer Policy*, Vol. 17 No. 2, pp. 159-179.
- Faber, R. J., & O'guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of consumer Research*, Vol. 19 No. 3, pp. 459-469.
- Filomensky, T. Z., & Tavares, H. (2015). Compulsive Buying Disorder. In *Textbook of Addiction Treatment: International Perspectives* (pp. 1527-1542). Springer Milan.
- Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.
- Flight, R. L., & Sacramento, D. (2015). "Brand Attachment and the Compulsive Buyer." *International Journal of Academic Research in Business and Social Sciences*, Vol. 5 No. 8, pp. 157-171.
- Fornara, F., Pattitoni, P., Mura, M., & Strazzera, E. (2016). "Predicting intention to improve household energy efficiency: The role of value-belief-norm theory, normative and informational influence, and specific attitude." *Journal of Environmental Psychology*, Vol. 45, pp. 1-10.
- Goldsmith, R. E., Flynn, L. R., & Goldsmith, E. B. (2015). "Consumer Characteristics Associated with Compulsive Buying." *Journal of Multidisciplinary Research*, Vol. 7 No. 3, pp. 21-32.
- Gollwitzer, P. M., Wicklund, R. A., & Hilton, J. L. (1982). "Admission of failure and symbolic self-completion: Extending Lewinian theory." *Journal of personality and social psychology*, Vol. 43 No. 2, pp. 358.
- Grougiou, V., Moschis, G., & Kapoutsis, I. (2015). "Compulsive buying: the role of earlier-in-life events and experiences." *Journal of Consumer Marketing*, Vol. 32 No. 4, pp. 278-289.
- Hutteman, R., Nestler, S., Wagner, J., Egloff, B., & Back, M. D. (2015). "Wherever I may roam: Processes of self-esteem development from adolescence to emerging adulthood in the context of international student exchange." *Journal of personality and social psychology*, Vol. 108 No. 5, pp. 767-787.

- Jalees, T., Tariq, H., Alam Kazmi, S. H., & Zaman, S. I. (2015). "Measruing the Effects of Materialsim, Self Esteem, and Influnce of of Others on Compulsive Buying" *Asian Management Research and Case*, Vol. 4 No. 1, pp. 1-18.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*: Guilford publications.
- Koran, L., Faber, R., Aboujaoude, E., Large, M., & Serpe, R. (2006). "Estimated prevalence of compulsive buying behavior in the United States." *American Journal of Psychiatry*, Vol. 163 No. 10, pp. 1806-1812.
- Koran, L. M., & Aboujaoude, E. (2014). "Treating Compulsive Buying Disorder." *Current Treatment Options in Psychiatry*, 1(4), 315-324.
- Kropp, F., Lavack, A. M., & Silvera, D. H. (2005). "Values and collective self-esteem as predictors of consumer susceptibility to interpersonal influence among university students." *International Marketing Review*, Vol. 22 No. 1, pp. 7-33.
- Kukar-Kinney, M., Scheinbaum, A. C., & Schaefer, T. (2016). "Compulsive buying in online daily deal settings: An investigation of motivations and contextual elements." *Journal of Business Research*, Vol. 69 No. 2, pp. 691-699.
- Leary, R. B., Vann, R. J., & Groza, M. P. (2016). *Consumer Product Evaluation Updating: The Impact of Online and Interpersonal Social Influence on Evaluation Certainty Let's Get Engaged! Crossing the Threshold of Marketing's Engagement Era* (pp. 465-466): Springer.
- Lee, M., Wilson, T. D., Eggleston, C. M., Gilbert, D. T., & Ku, X. (2015). "Just because you like it doesn't mean I will too: Cross-cultural similarities in ignoring others' opinions." *Asian Journal of Social Psychology*, Vol. 18 No. 3, pp. 192-198.
- Leech, N. L., Barrett, K. C., & Morgan, G. A. (2005). *SPSS for intermediate statistics: Use and interpretation*: Lawrence Erlbaum Assoc Inc.
- Mandel, N., Rucker, D., Levav, J., & Galinsky, A. D. (2016). "The Compensatory Consumer Behavior Model: How Self-Discrepancies Drive Consumer Behavior." *Journal of Consumer Psychology*, Forthcoming.
- Maraz, A., van den Brink, W., & Demetrovics, Z. (2015). "Prevalence and construct validity of compulsive buying disorder in shopping mall visitors." *Psychiatry research*, Vol. 228 No. 3, pp. 918-924.
- Marquardt, M. K., Gantman, A. P., Gollwitzer, P. M., & Oettingen, G. (2016). "Incomplete professional identity goals override moral concerns." *Journal of Experimental Social Psychology*, Vol. 65, pp. 31-41.
- Marshall, S. L., Parker, P. D., Ciarrochi, J., Sahdra, B., Jackson, C. J., & Heaven, P. C. (2015). "Self-compassion protects against the negative effects of low self-esteem: A longitudinal study in a large adolescent sample." *Personality and Individual Differences*, Vol. 74, pp. 116-121.
- McGriff, J., Prater, T., & Kiser, S. B. (2015). "Factors Affecting the Decision to Acquire Tattoos and Others Body Art." *International Journal of Business & Public Administration*, Vol. 12 No. 1.
- Quoquab, F., Mohammad, J., Rizal, A. M., & Basiruddin, R. (2015). *Compulsive Buying: What Is Behind The Curtain?* *International Journal of Innovation and Business Strategy*, 3.
- Raab, G., Elger, C. E., Neuner, M., & Weber, B. (2011). "A neurological study of compulsive buying behaviour." *Journal of Consumer Policy*, Vol. 34 No. 4, pp. 401-413.

- Richins, M. L., & Chaplin, L. N. (2015). "Material parenting: how the use of goods in parenting fosters materialism in the next generation." *Journal of consumer Research*, Vol. 41 No. 6, pp. 1333-1357.
- Roberts, J. A. (1998). "Compulsive buying among college students: an investigation of its antecedents, consequences, and implications for public policy." *Journal of Consumer Affairs*, Vol. 32 No. 2, pp. 295-319.
- Roberts, J. A., Manolis, C., & Pullig, C. (2014). "Contingent Self-Esteem, Self-Presentational Concerns, and Compulsive Buying." *Psychology & Marketing*, Vol. 31 No. 2, pp. 147-160.
- Rosen, L. D., Whaling, K., Rab, S., Carrier, L. M., & Cheever, N. A. (2013). "Is Facebook creating "iDisorders"? The link between clinical symptoms of psychiatric disorders and technology use, attitudes and anxiety." *Computers in Human Behavior*, Vol. 29 No. 3, pp. 1243-1254.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). "Global self-esteem and specific self-esteem: Different concepts, different outcomes." *American Sociological Review*, pp. 141-156.
- Shaw, D., Shiu, E., & Clarke, I. (2015). "Ethical Consumption: The Contribution of Ethical Obligation and Self-Identity to the Theory of Planned Behaviour" *Global Perspectives in Marketing for the 21st Century* (pp. 359-359): Springer.
- Singh, D. (1995). "Female judgment of male attractiveness and desirability for relationships: Role of waist-to-hip ratio and financial status." *Journal of personality and social psychology*, Vol. 69 No. 6, pp. 1089.
- Sirgy, M. J. (1998). "Materialism and quality of life. *Social indicators research*, Vol. 43 No. 3, pp. 227-260.
- Tan, J. C., Chen, S., & Theng, Y.-L. (2015). "Do Asians Keep Up with the Joneses? A Process Perspective on How Susceptibility to Interpersonal Influence and Materialistic Orientation Predict Compulsive Buying." *AP-Asia-Pacific Advances in Consumer Research Volume 11*.
- Tang, N., & Baker, A. (2016). "Self-esteem, financial knowledge and financial behavior." *Journal of Economic Psychology*, Vol. 54, pp. 164-176.
- Wang, M., & Jing, X. (2015). The Study of Sales Promotion and Compulsive Buying. *Journal of Management and Strategy*, Vol. 6 No. (2), pp. 105-108.
- Weinstein, A., Mezig, H., Mizrachi, S., & Lejoyeux, M. (2015). A study investigating the association between compulsive buying with measures of anxiety and obsessive-compulsive behavior among internet shoppers. *Comprehensive psychiatry*, Vol. 57, pp. 46-50.
- Yeniaras, V., & Wilson, J. J. (2016). "Unpacking the relationship between materialism, status consumption and attitude to debt: the role of Islamic religiosity." *Journal of Islamic Marketing*, Vol. 7 No.2.
- Yurchisin, J., & Johnson, K. K. (2004). "Compulsive buying behavior and its relationship to perceived social status associated with buying, materialism, self-esteem, and apparel-product involvement." *Family and Consumer Sciences Research Journal*, Vol.32 No. 3, pp. 291-314.