

MARKET SEGMENTATION BASED ON MATERIALISTIC, CONSPICUOUS, AND TRADITIONALIST GOALS IN SUPPORT OF AN EFFECTIVE INDUSTRIAL DESIGN

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Abstract: *One important line of action in the marketing field is the conception of products attractive to consumers. Industrial design plays a significant role in this action. But the traditional market segmentation is not very useful from the industrial design point of view. Also, because the traditional criteria for market segmentation are becoming less efficient in general, the experts from the field are looking for new criteria. The research presented here is focused on the relationship between industrial design, consumer profile and product contribution to materialistic, conspicuous and traditionalist goals.*

Key words: *product marketing, materialistic goals, conspicuous goals, traditionalist goals, industrial goals.*

1. Introduction

As is well known, marketing at the company level means a complex and coordinated system of actions carried out with the aim of ensuring the market success of the company's product or service. One of these actions can be generically described as the conception of products and packaging attractive to consumers. More precisely, this action means: creation of a product that satisfies the consumer's needs and expectations as much as possible, identification of the right market segment for the product and product promotion to the identified segment.

The product promotion can be carried out directly or indirectly. A successful approach to indirect promotion is by product aesthetics (industrial design). In order to know which design elements (shapes, colours, textures, etc.) are attractive to consumer, the designer should know the values appreciated by consumer. These values vary depending on the market segment.

Market segmentation means considering the total heterogeneous market for a product and dividing it into several sub-markets or segments, each of which tends to be

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homogeneous in all significant aspects (Stanton, 1984).

Recently, the marketing scientific literature has indicated that consumers are abandoning predictable patterns of consumption. The diversity of consumer needs and purchasing behaviour, as well as their dynamics, require the re-evaluation of market segmentation. Segmentation based on gender, age or income level is becoming less and less effective (Miguéis, Camanho, Cunha, 2012). Moreover, some authors signalled for some time that segmentation based on demographic data is becoming less useful and that psychographic and value- and goal-oriented criteria should be taken into account (Yankelovic, Meer, 2006). And in the industrial design field, traditional segmentation approaches are no longer as effective in today's fierce competition conditions, thus emphasizing the need for new segmentation criteria specific to industrial design.

The quest for effective segmentation criteria in industrial design can follow several directions: consumer values (as guiding life principles); consumer goals (as general targets pursued by people); consumer attitudes regarding products; etc. Consumer goals related to products is a promising direction and especially the following three: materialistic, conspicuous and traditionalist goals.

From the perspective of product marketing, materialism is the consumer's personal goal by which she/he gives a special importance to the acquisition and consumption of material goods (Richins and Dawson, 1992; Kasser and Ryan, 1993). Thus, the value is placed both on the accumulation of material goods, but also on the process of their acquisition. In addition to personal satisfaction, the materialistic consumer aims to obtain high status or popularity through the display of owned possessions (Velov, et al. 2014; Flynn et al., 2016; Kasser, 2016).

Materialism has enjoyed a special interest from researchers, because it is associated with consumerism and with all the negative aspects it generates. It was found that materialism is detrimental to individuals, their families and society as a whole (Kasser, 2016). People with materialistic goals do not show prosocial behaviours (Briggs, Landry, and Wood, 2007) nor pro-environmental behaviours (Kilbourne and Pickett, 2008; Hurst, Dittmar, Bond, and Kasser, 2013), because by overconsuming they lead to environmental degradation (Peattie, 1995) and are not concerned with recycling either (Tilikidou and Delistavrou, 2001).

Studies have also been conducted with a focus on different aspects and it was discovered that people's materialism affects their personal happiness (Poirier, et. al., 2020), well-being (Wang, Liu, Jiang, and Song, 2017), and personal mental health (Kasser, 2016). Also, people with materialistic values spend too much time working to the detriment of developing interpersonal relationships (Rojas, and López, 2014) and, also, they have the tendency to measure their own success, as well as others', from the perspective of accumulated goods (Tarka, 2020). There are certain connections between materialism and materialistic education provided by parents (Richins and Chaplin, 2015), financial stress (Sheldon and Kasser, 2008), fear of uncertainty (Chang and Arkin, 2002) and mortality acknowledgment (Rindfleisch, Burroughs, and Wong, 2009).

The materialistic consumer is happy when purchasing products and therefore she/he buys as many as possible (Watson, 2003). Thus, this consumer counteracts negative thoughts and states (Shrum et al., 2013) and has a positive experience generated by the

aesthetics of the products possessed (Kawabata and Zeki, 2004; Creusen and Schoormans, 2005; Nadal et al., 2008). Moreover, the materialistic consumer is convinced that her/his goods define her/his identity (Shrum et al., 2013), and the materialistic tendency is accentuated as becomes richer (Belk, 1985).

Materialism also appears among young people and manifests itself through compulsive buying (Islam et al., 2017; Tarka, 2020), emotion dysregulation (Estévez et al., 2020), and depression (Mueller et al., 2011). Addiction to the internet (Mueller et al., 2011) and to IT technology (Gentina and Rowe, 2020) amplifies the materialism of young people.

Conspicuous consumption is the consumption practiced by people who, through the products purchased and displayed in public, want to demonstrate luxury, wealth (Trigg, 2001), prestige (Belk, 1988; Wu et al., 2017), remarkable social status and a special self-image. Conspicuous consumed products should be visually remarkable, even visually striking. Consumer satisfaction is generated not by the satisfaction of use, but by the satisfaction of possessing and displaying of a remarkable product (Shao et al., 2019).

Conspicuous consumption also has the role of signalling high purchasing power to impress others and allow assuming an important role in the social group (Mitić, Petrović, and Đurić, 2018). Conspicuous consumption acts more strongly in the case of people in situations of social exclusion (Liang, Chang, and Wang, 2017).

Numerous studies have analysed and demonstrated the direct connection between materialism and conspicuous consumption (Podoshen et al., 2011; Segal and Podoshen, 2013), but also from the perspective of product significance (Richins, 1994; Prendergast and Wong, 2003). As in the case of materialism, conspicuous consumption is in opposition to the spiritual life of the individual (Stillman et al., 2012).

Traditionalism consists of the value, attitude and target of actions aimed at maintaining established lifestyles, norms and morality and resisting "modern" lifestyles, norms and morality. In general, the modern (as opposed to the traditional) is seen as a disruptive threat to social balance that creates uncertainty and insecurity about the future (Duckitt, 2010).

Traditionalism is important for product design because it favours keeping the same shapes and colour palettes in the product structure, even if they are not functionally imposed. Traditionalism helps companies address consumer preferences more easily but discourages designers from experimenting with new shapes and colours.

An interesting manifestation of traditionalism in design is vernacular design. Vernacular design includes those creations constructed in locally established structures, through traditional techniques, with regional resources, in a functionalist spirit and lacking ornaments or with ornaments established in a fixed format for a long time. The value of vernacular design is given by the recognition that it was made through tradition, a tradition that was consecrated by the daily use of these products in a certain area (Finizola, Coutinho, and Cavalcanti, 2012).

2. Objectives

As a result of the study of scientific literature, it was found that materialism is in the focus of researchers from the marketing field, as well as conspicuous consumption. Materialistic and conspicuous consumption were approached from multiple perspectives, less from the perspective of product aesthetics. The right question is whether materialistic and conspicuous goals can be applied to product design, thus allowing for a more effective market segmentation. Traditionalism can be taken into account as an antagonistic goal, remarkable for its orientation towards functional simplicity.

More precisely, the aspects to be studied would be related to the reflection of materialistic, conspicuous and traditionalist goals in product aesthetics, and a possible correlation between the positive evaluation of the design characterized by a certain goal (materialistic, conspicuous or traditionalist) by an observer who esteems the same goal (materialistic, conspicuous or traditionalist). Thus, the research questions are:

RQ1: From the point of view of product aesthetics, can a product be categorized as materialistic/conspicuous/traditionalist?

RQ2: Is there a correlation between the aesthetic appraisal of a materialistic/conspicuous/traditionalist product and the consumer's trait?

RQ3: Can a consumer correctly identify a product's contribution to the fulfilment of materialistic/conspicuous/traditionalist goals?

RQ4: From the point of view of product aesthetics, is there any difference between the way in which a product contributes to the fulfilment of materialistic goals and, respectively, conspicuous goals?

3. Material and Methods

Considering the research questions, the design of the experiment began. A pretest was designed for the selection of product images and the identification of the respective products' contribution to the fulfilment of goals. Bedside lamp was chosen as a generic product because it presents a wide variety of shapes, colours and materials and is likely to be associated with all considered goals. Initially, 78 images of lamps were selected. The author and two colleagues with competences in the field sorted the images and finally 18 images of lamps remained. They were the subject of pretest. Also, the author and the two colleagues decided that the only criterion for participant selection would be the possession of knowledge in the field of industrial design. The experiment was announced to students at industrial design-related courses.

In order to ensure that all participants (in pretest and in main experiment) share the same vision on the notions of materialism, conspicuousness and traditionalism, a script was prepared and contained brief answers to the questions:

- What is materialism/traditionalism?
- What is conspicuous consumption?
- How does a materialistic/conspicuous/traditionalist person behave?
- What kind of products does a materialistic/conspicuous/traditionalist person prefer?

The presentations were always made by the author and always lasted around 15 minutes (both in the pretest and in the main experiment). Then there was a question

session, but usually there were no more than two questions per session. The participants were not given suggestions of associations of design elements with materialistic values, etc. For example, they were not told that the conic lampshade made from cloth is associated with traditionalism.

A simple questionnaire was developed for the pretest, which included a question with 3 Likert scales [1 – very little; 7 – very much]:

How much does product X express the following goals?

- Materialistic
- Conspicuous
- Traditionalistic

After the pretest run, 6 lamp images were selected. Some examples are displayed in Figures 1 – 3.



Fig. 1. *Product with a high contribution to traditionalist goals*



Fig. 2. *Product with a high contribution to materialistic goals*



Fig. 3. *Product with a low contribution to materialistic goals*

A more complex questionnaire was designed for the main experiment. First, the participant profile was determined, using 7-point Likert scales. The participant's materialistic trait was measured with the following questions (Richins, and Dawson, 1992):

- I admire people who own expensive homes, cars, and clothes.
- Buying things gives me a lot of pleasure.
- I'd be happier if I could afford to buy more things.

The participant's conspicuous trait was measured with the following questions, inspired by (Argan, et. al., 2015):

- Luxurious products ensure the prestige of the owners.
- If you wear an expensive item, others will notice it.
- When I wear an expensive item, I feel really good.

The participant's traditionalist trait was measured with the following questions, inspired by (Duckitt, et. al., 2010):

- The "old-fashioned ways" and "old-fashioned values" still show the best way to live.
- It is important that we preserve our traditional values and moral standards.
- The Internet and the overly free press are undermining society.

Secondly, the participant assessed the aesthetic measure of each product using the following construct (7-point Likert scales):

- Please rate the beauty of product X. [1 – Ugly; 7 - Very nice]
- Please rate the attractiveness of product X. [1 – Unattractive; 7 - Very attractive]
- Please rate the impression that product X makes. [1- Banal; 7 – Impressive]

Thirdly, the participant evaluated the product contribution to materialistic/conspicuous/traditionalist goals. The construct (7-point Likert scales) for contribution to materialistic goals was inspired by the paper (Vilches-Montero, et. al., 2018):

- I would be happier if I could afford buying this product.
- I see this product as a personal reward.
- Such a product would complete my collection of products that I am proud of.

The construct (7-point Likert scales) for contribution to conspicuous goals was inspired by (Vilches-Montero, et. al., 2018):

- My friends would think highly of people who own this product.
- This product would symbolise status and prestige to the people I look up to.
- This product would make a very good impression on others.

The construct (7-point Likert scales) for contribution to traditional goals was original:

- Product X implicitly expresses my opinion about tradition.
- Product X can be associated with my socio-cultural roots.

4. Experimental Results

4.1. Pretest

The pretest was carried-out with 27 participants (12 women and 15 men). The participants' age span was 21 – 25 years. All participants were students enrolled at a large technical university in Romania. The participants had basic training in product aesthetics. The participants were not financially rewarded for their participation in this research. The pretest took place in February 2023. The accuracy of results was tested using Z-score. No Z-score were outside the interval [-3; +3], so no data sets were removed. The Z-score ranged between -2.45 and 2.63. The reliability of data was tested using the Cronbach's alpha coefficient. The calculated value for the complete set of data was $\alpha = 0.937$, value which stands for a very good reliability. The pretest results are displayed in Table 1.

Product means (contribution to ... goals) obtained in pretest Table 1

Lamp	A	B	C	D	E	F	G	H	I
Materialistic	4.44	3.70	3.22	4.93	4.70	5.63	3.78	3.11	3.85
Conspicuous	4.33	3.74	3.04	4.74	4.52	5.74	3.96	3.30	3.89
Traditionalist	2.04	1.78	2.11	3.41	1.85	3.48	4.52	2.67	3.37
Lamp	J	K	L	M	N	O	P	Q	R
Materialistic	3.85	4.26	5.04	4.04	5.81	4.52	4.19	3.78	4.67
Conspicuous	3.41	4.11	5.07	4.33	5.00	4.48	4.37	3.19	4.41
Traditionalist	2.59	2.74	2.89	3.70	2.48	4.52	3.07	5.19	3.15

After conducting the pretest, it was discovered that for the contribution to materialistic, conspicuous and traditionalist goals, there can be identified products that present a minimum, respectively a maximum. These products were selected to be used in the main experiment. (Some images are displayed in Figures 1 – 3.)

Analysing the results of the pretest, it was clearly found that the products (or at least

an important part of them) can be categorized as materialistic, conspicuous or traditionalist, thus answering positively to research question RQ1.

4.2. Main experiment

The main experiment was performed with 320 participants (186 women and 134 men). The mean age of participants was 22.8 years ($\sigma = 2.6$). All participants were students enrolled at a large technical university in Romania. The participants had basic training in product aesthetics. The participants were not financially rewarded for their participation in this research. No participant from pretest was involved in the main experiment. The experiment took place between March and May 2023. The accuracy of results was tested using Z-score. No Z-score were outside the interval $[-3; +3]$, so no data sets were removed. The Z-score ranged between -1.92 and 2.93. The reliability of data was tested using the Cronbach's alpha coefficient. The calculated value for the complete set of data was $\alpha = 0.984$, value which stands for a particularly good reliability.

To test research question RQ2, the correlation coefficients between the marks given for the product aesthetics and the participant's profile were calculated. These coefficients are displayed in Table 2. Considering that a correlation coefficient with a value of 0.7 - 0.9 indicates a strong connection, and a correlation coefficient below 0.5 indicates an insignificant connection, it can be stated that there is a strong and significant correlation between aesthetic appraisal of a materialistic/conspicuous/traditionalist product and the consumer's trait. Also, it can be observed that there is a certain relationship between the materialistic and conspicuous character.

Table 2

Correlation coefficients between product aesthetic appraisal and participant's profile

Lamp	1	2	3	4	5	6
	Materialistic high	Materialistic low	Conspicuous high	Conspicuous low	Traditionalist high	Traditionalist low
Participant's profile						
Materialistic	0.73	0.12	0.71	0.06	0.12	0.06
Conspicuous	0.43	0.07	0.79	0.09	0.05	0.12
Traditionalist	0.06	0.04	0.14	0.07	0.82	0.10

The correlation coefficients between product contribution to materialistic/conspicuous/traditionalist goals and specific traits of the participant's profile were calculated in order to investigate research question RQ3. The results are shown in Table 3. Analysing the coefficients and especially the values near and above 0.7, the answer to research question RQ3 is that the consumer can correctly identify the product contribution to the fulfilment of a specific goal only if the respective goal corresponds to consumer's trait. Again, a certain relationship between materialistic and conspicuous character was remarked.

*Correlation coefficients between product contribution to goals
and participant's profile*

Table 3

Lamp	1			2		
	Materialistic high			Materialistic low		
Contribution to goals	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Participant's profile	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Materialistic	0.66	0.30	0.09	0.16	0.16	0.12
Conspicuous	0.51	0.42	0.16	0.13	0.17	0.14
Traditionalist	0.11	0.04	0.15	0.06	0.09	0.10
Lamp	3			4		
	Conspicuous high			Conspicuous low		
Contribution to goals	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Participant's profile	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Materialistic	0.42	0.43	0.17	0.05	0.05	0.02
Conspicuous	0.63	0.76	0.21	0.10	0.10	0.07
Traditionalist	0.13	0.07	0.21	0.07	0.07	0.00
Lamp	5			6		
	Traditionalist high			Traditionalist low		
Contribution to goals	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Participant's profile	Materialistic	Conspicuous	Traditionalist	Materialistic	Conspicuous	Traditionalist
Materialistic	0.26	0.21	0.06	0.11	0.08	0.04
Conspicuous	0.25	0.24	0.11	0.13	0.16	0.12
Traditionalist	0.14	0.15	0.67	0.13	0.10	0.07

Since a certain relationship between the materialistic and conspicuous character was observed, research question RQ4 was formulated. (This was actually the moment when the research question was formulated, but it was presented in §2. *Objectives* for clarity of exposition.) The following null hypothesis **H₀** was expressed. Then the z-Test: Two Sample for Means was applied for each product to the contribution to materialistic goals, respectively to the contribution to conspicuous goals.

H₀: There is no difference in how the product aesthetics reflects materialistic and conspicuous goals.

The results obtained after running the z-Test are displayed in Table 4. It is noted that the null hypothesis is neither rejected nor confirmed. No criterion can be directly identified by which the null hypothesis would be confirmed.

Results of the z-Test applied to the materialistic-conspicuous relationship Table 4

	$z = 1.645$	$p < 0.05$	Difference is
Lamp 1 (materialistic high)	7.145	4.48×10^{-13}	significant
Lamp 2 (materialistic low)	0.132	0.447	not significant
Lamp 3 (conspicuous high)	0.472	0.318	not significant
Lamp 4 (conspicuous low)	0.321	0.374	not significant
Lamp 5 (traditionalist high)	3.05	0.001	significant
Lamp 6 (traditionalist low)	1.497	0.067	not significant

4. Conclusions

Given that marketers are looking for more subtle market segmentation criteria to support promotion based on product aesthetics, this research focused on materialistic, conspicuous and traditionalist characteristics both as components of the consumer's profile and as product design contribution to the fulfilment of these goals. Using established constructs and statistical techniques for the analysis of experimental results, the following conclusions were reached:

- When sensing the product aesthetics, a consumer can easily and effectively categorize a product as materialistic, conspicuous or traditionalist.
- The consumer appraises the product aesthetics more favourably when the product possesses materialistic, conspicuous or traditionalist characteristics similar to that consumer's traits. Thus, it can be stated that there is a congruence between consumer's traits and the product's contribution to materialistic/conspicuous/traditionalist goals.
- The consumer can identify the product contribution to the fulfilment of a specific goal (materialistic/conspicuous/traditionalist) only if the respective goal corresponds to the consumer's trait.
- Even there is a certain correlation between the product contribution to materialistic and, respectively, to conspicuous goals, there is a difference in how the product aesthetics reflects materialistic and conspicuous goals.

References

- Argan, M., Akyildiz, M., Argan, M. T. and Kaya, S., 2015. An Investigation on Conspicuous Consumption from Perspective of Sport Products. *Studia sportiva*, 9(1), pp. 125-130. <https://doi.org/10.5817/sts2015-1-14>
- Belk, R. W., 1985. Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12(3), pp.265–80. <http://doi/10.1086/208515>
- Belk, R. W., 1988. Possessions and the extended self. *Journal of Consumer Research*, 15, pp. 139–168. <https://doi.org/10.1086/209154>
- Briggs, E., Landry, T. and Wood, C., 2007. Beyond just being there: An examination of the impact of attitudes, materialism, and self-esteem on the quality of helping behavior in youth volunteers. *Journal of Nonprofit and Public Sector Marketing*, 18, pp. 27–45.

- Chang, L. C. and Arkin, R. M., 2002. "Materialism as an attempt to cope with uncertainty." *Psychology and Marketing*, 19, pp. 389–406. <https://doi.org/10.1002/mar.10016>
- Creusen, M.E. and Schoormans, J.P., 2005. "The different roles of product appearance in consumer choice". *Journal of Product Innovation Management*, 22(1), pp. 63–81. <https://doi.org/10.1111/j.0737-6782.2005.00103.x>
- Duckitt, J., Bizumic, B., Krauss, S. W. and Heled, E., 2010. A tripartite approach to right-wing authoritarianism: The authoritarianism-conservatism-traditionalism model. *Political Psychology*, 31(5), pp. 685-715. <https://doi.org/10.1111/j.1467-9221.2010.00781.x>
- Estévez, A., et. al., 2020. Buying-shopping disorder, emotion dysregulation, coping and materialism: a comparative approach with gambling patients and young people and adolescents. *International Journal of Psychiatry in Clinical Practice*, 24, pp. 407–415. <https://doi.org/10.1080/13651501.2020.1780616>
- Finizola, F., Coutinho, S. and Cavalcanti, V., 2012. Vernacular design: a discussion on its concept. *Design Frontiers: territories, concepts, technologies. Proceedings of the 8th Conference of the International Committee for Design History and Design Studies*, pp. 557-561. <https://doi.org/10.5151/design-icdhs-107>
- Flynn, L. R., Goldsmith, R. E. and Pollitte, W., 2016. Materialism, status consumption, and market involved consumers. *Psychology and Marketing*, 33, pp. 761–776. <https://doi.org/10.1002/mar.20915>
- Gentina, E., and Rowe, F., 2020. Effects of materialism on problematic smartphone dependency among adolescents: The role of gender and gratifications. *International Journal of Information Management*, 54, 102134. <https://doi.org/10.1016/j.ijinfomgt.2020.102134>
- Hurst, M., Dittmar, H., Bond, R. and Kasser, T., 2013. The relationship between materialistic values and environmental attitudes and behaviors: A meta-analysis. *Journal of Environmental Psychology*, 36, pp. 257–269. <https://doi.org/10.1016/j.jenvp.2013.09.003>
- Islam, T., Wei, J., Sheikh, Z., Hameed, Z. and Azam, R. I., 2017. Determinants of compulsive buying behavior among young adults: The mediating role of materialism". *Journal of Adolescence*, 61, pp. 117–130. <https://doi.org/10.1016/j.adolescence.2017.10.004>
- Kasser, T. and Ryan, R. M., 1993. A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, pp. 410-422. <https://doi.org/10.1037/0022-3514.65.2.410>
- Kasser, T., 2016. Materialistic values and goals. *Annual Review of Psychology*, 67, pp. 489–514. <https://doi.org/10.1146/annurev-psych-122414-033344>
- Kawabata, H. and Zeki, S., 2004. Neural correlates of beauty. *Journal of Neurophysiology*. 91(4), pp. 1699–1705. <https://doi.org/10.1016/j.neures.2007.06.136>
- Kilbourne, W. and Pickett, G., 2008. How materialism affects environmental beliefs, concerns, and environmentally responsible behavior. *Journal of Business Research*, 61, pp. 885-893. <https://doi.org/10.1016/j.jbusres.2007.09.016>
- Kolańska-Stronka, M. and Gorbaniuk, O., 2022. Materialism, conspicuous consumption,

- and brand engagement in self-concept: a study of teenagers. *Current Issues in Personality Psychology*, 10(1), pp. 39-48. <https://doi.org/10.5114/cipp.2021.110060>
- Liang, S., Chang, Y. and Wang, J., 2017. Social exclusion and conspicuous consumption: The moderating effect of power state. *Social Behavior and Personality: An international journal*, 45(2), pp. 321-329. <https://doi.org/10.2224/sbp.5773>
- Miguéis, V.L., Camanho, A.S. and Cunha, J.F., 2012. Customer data mining for lifestyle segmentation. *Expert systems with applications*, 39(10), pp. 9359-9366. <https://doi.org/10.1016/j.eswa.2012.02.133>
- Mitić, A., Petrović, I. and Đurić, V., 2018. Social rank styles, machiavellianism and the attitude toward conspicuous consumption. *Primenjena psihologija*, 11(2), pp. 207-225. <https://doi.org/10.19090/pp.2018.2.207-225>
- Mueller, A., Mitchell, J. E., Peterson, L. A., Faber, R. J., Steffen, K. J., Crosby, R. D. and Claes, L. 2011. Depression, materialism, and excessive Internet use in relation to compulsive buying. *Comprehensive Psychiatry*, 52, pp. 420-424. <https://doi.org/10.1016/j.comppsy.2010.09.001>
- Nadal, M., Munar, E., Capó, M.À., Rosselló, J. and Cela-Conde, C.J., 2008. Towards a framework for the study of the neural correlates of aesthetic preference. *Spatial Vision*, 21(3), pp. 379-396. <https://doi.org/10.1163/156856808784532653>
- Peattie, K., 1995. *Environmental marketing management*. London: Pitman Publishing.
- Podoshen, J. S., Li, L. and Zhang, J., 2011. Materialism and conspicuous consumption in China: a crosscultural examination. *International Journal of Consumer Studies*, 35, pp. 17-25. <https://doi.org/10.1111/j.1470-6431.2010.00930.x>
- Poirier, S. L., Brinthaup, T. M., Vu, J. K., Remsen, M. A. and Iyer, U. J., 2020. Relationship between Materialism, Life Values, and Happiness in a US College Sample. *International Journal of Home Economics*, 13(1), pp. 96-106.
- Prendergast, G., and Wong, C., 2003. Parental influence on the purchase of luxury brands of infant apparel: an exploratory study in Hong Kong. *Journal of Consumer Marketing*, 20, pp. 157-169. <https://doi.org/10.1108/07363760310464613>
- Richins, M. L. and Chaplin, L. N., 2015. Material parenting: How the use of goods in parenting fosters materialism in the next generation. *Journal of Consumer Research*, 41, pp. 1333-1357. <https://doi.org/10.1086/680087>
- Richins, M. L., and Dawson, S. 1992. A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of consumer research*, 19(3), pp. 303-316. <https://doi.org/10.1086/209304>
- Richins, M. L., 1994. Valuing things: The public and private meanings of possessions. *Journal of Consumer Research*, 21, pp. 504-521. <https://doi.org/10.1086/209414>
- Rindfleisch, A., Burroughs, J. E., and Wong, N., 2009. The safety of objects: Materialism, existential insecurity, and brand connection. *Journal of Consumer Research*, 36, pp. 1-16. <https://doi.org/10.1086/595718>
- Rojas, M. and López, I. I., 2014. Happiness and Human Relations: The Role of Materialistic Values. An ABM Illustration. *IJIMAI*, 2(5), pp. 24-31.
- Segal, B. and Podoshen, J. S., 2013. An examination of materialism, conspicuous consumption and gender differences. *International Journal of Consumer Studies*, 37, pp. 189-198. <https://doi.org/10.1111/j.1470-6431.2012.01099.x>

- Shao, W., Grace, D. and Ross, M., 2019. "Consumer motivation and luxury consumption: Testing moderating effects". *Journal of Retailing and Consumer Services*, 46, pp. 33–44. <https://doi.org/10.1016/j.jretconser.2018.10.003>
- Sheldon, K. M. and Kasser, T., 2008. Psychological threat and extrinsic goal striving. *Motivation and Emotion*, 32, pp. 37–45. <https://doi.org/10.1007/s11031-008-9081-5>
- Shrum, L.J., Wong, N., Arif, F., Chugani, S.K., Gunz, A., Lowrey, T.M., Scott, K., 2013. Reconceptualizing materialism as identity goal pursuits: functions, processes, and consequences. *Journal of Business Research*, 66(8), pp. 1179–1185. <https://doi.org/10.1016/j.jbusres.2012.08.010>
- Stanton, W. J., 1984. *Fundamentals of marketing*. McGraw-Hill.
- Stillman, T. F., F. D. Fincham, K. D. Vohs, N. M. Lambert, and C. A. Phillips, 2012. The material and immaterial in conflict: Spirituality reduces conspicuous consumption". *Journal of Economic Psychology*, 22, pp. 1–7. <https://doi.org/10.1016/j.joep.2011.08.012>
- Tarka, P., 2020. Influence of materialism on compulsive buying behavior: General similarities and differences related to studies on young adult consumers in Poland and US. *Journal of International Consumer Marketing*, 32(3), pp. 243–267. <https://doi.org/10.1080/08961530.2019.1695240>
- Tilikidou, I. and Antoni, D., 2001. Utilization of selected demographics and psychographics in recycling behavior understanding: A focus on materialism. *International Greener Management Journal*, 34, pp. 75–93. <https://doi.org/10.9774/gleaf.3062.2001.su.00008>
- Trigg, A., 2001. Veblen, Bourdieu, and conspicuous consumption. *Journal of Economic Issues*, 35, pp. 99–115. <https://doi.org/10.1080/00213624.2001.11506342>
- Velov, B., Gojković, V. and Đurić, V., 2014. Materialism, narcissism and the attitude towards conspicuous consumption. *Psihologija*, 47, pp. 113–129. <https://doi.org/10.2298/psi1401113v>
- Vilches-Montero, S., Hashim, N. M. H. N., Pandit, A. and Bravo-Olavarria, R., 2018. Using the senses to evaluate aesthetic products at the point of sale: The moderating role of consumers' goals. *Journal of Retailing and Consumer Services*, 40, pp. 82–90. <https://doi.org/10.1016/j.jretconser.2017.09.008>
- Wang, R., Liu, H., Jiang, J., and Song, Y., 2017. Will materialism lead to happiness? A longitudinal analysis of the mediating role of psychological needs satisfaction. *Personality and Individual Differences*, 105, pp. 312–317. <https://doi.org/10.1016/j.paid.2016.10.014>
- Watson, J.J., 2003. The relationship of materialism to spending tendencies, saving and debt. *Journal of Economic Psychology*. 24(6), pp. 723–739. <https://doi.org/10.1016/j.joep.2003.06.001>
- Wu, Z., Luo, J., Schroeder, J. E., and Borgerson, J. L., 2017. Forms of inconspicuous consumption: What drives inconspicuous luxury consumption in China?, *Marketing Theory*, 17, pp. 491–516. <https://doi.org/10.1177/1470593117710983>
- Yankelovic, D., and Meer, R., 2006. Rediscovering market segmentation. *Harvard Business Review*, 84(2), pp. 122–131.