

The effect of consumer multiple perceived value on the purchase intention: A study of sports nutritional supplements

Caner Özgen¹ and Servet Reyhan^{2*}

¹Physical Education and Sports, Eskişehir Technical University, Turkey.

²Physical Education and Sports, Siirt University, Turkey.

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ABSTRACT

Individuals who practice weight training to have an aesthetic body, resort to sports nutritional supplements as products to support their body development. Research has shown that the use of these products has increased dramatically. The aim of this study is to examine the effects of multiple perceived values from sports nutritional supplements on brand attachment and purchasing intention. To achieve the goals of the study, a total of 425 athlete nutritional supplement users were reached. The empirical data obtained were analysed with a two-stage approach, namely measurement and structural, in line with the basic methodological principles of the Structural Equation Modeling (SEM). As a result of the analysis, it has been demonstrated that the multiple perceived value related to sports nutritional supplements have various effects on brand attachment and purchasing intentions. The results of the study have contributed to the discussions in the literature in the context of sports nutritional supplements by providing tips to professionals who achieved the results, which they can use in marketing activities.

Keywords: Multiple perceived value, purchasing intention, brand attachment.

*Corresponding author. E-mail: serreyhannn@gmail.com.

INTRODUCTION

Today, individuals have started to show great interest in weight training to obtain a great body. Kim et al. (2016) found that individuals tend to use sports nutritional supplements to increase the effects of weight training. Regarding the subject, Sundgot-Borgen et al. (2003) found that among individuals who are interested in weight training, the rate of those who use sports nutritional supplements reaches 60%. This situation has made the industry related to sports nutritional supplements multi-billion dollars dependent on weight athletes.

Sweeney and Soutar (2001) stated that brands should establish mission and vision targets focused on creating value for their sustainability. This is very important in the sports nutritional supplements industry, where competition is increasing day by day. While brands try to stand out from the competition by creating value in the sector, consumers choose the brands that they perceive

maximum value. Jang et al. (2005) found that a product can be successful in the value dimension it provides to consumers. This situation has dramatically increased the interest in academic studies related to creating value (Sinha and DeSarbo, 1998; Sweeney and Soutar, 2001).

Theoretical background

Previous research in the literature on perceived value has narrowly interpreted a paradigm of cost-quality trade-off (Mathwick et al., 2001). On the other hand, Sweeney and Soutar (2001) stated that the perceived value represents a multi-dimensional structure consisting of sub-heterogeneous dimensions. This study, as was previously in similar studies (Wang, 2010), will consider the perceived value in a multi-dimensional way in relation

to the functional-price/value for money and performance/quality, emotional and social dimensions of value structures.

The price is “the amount of money charged for a product or service or the sum of all the values that customers give up in order to gain the benefit of having or using a product or service” (Kotler and Armstrong, 2010). Henriksen (2012) stated that price is one of the biggest obstacles to the purchase decision for customers in many different situations. Gill et al. (2007) stated that perceived product value affects their purchase decisions due to its effect on the brand image. Price is an important indicator of brand perception. In line with the previously developed literature, perceived product value is thought to be a predictor of sports nutritional supplements. In this context, the first two hypotheses of our research are formed as follows.

- H1^a: Sports nutritional supplements consumers' perceived functional value of product price/value for money positively influences the brand attachment.
 H1^b: Sports nutritional supplements consumers' perceived functional value of product price/value for money positively influences the purchase intention.

Concerning the functional value phenomenon, Larsen and Watson (2001) argued that it expresses the value perceived from the physical performance of a product. Regarding the issue, Patterson (1993) found that product performance is an important variable in consumer repurchase behavior. Baltas and Argouslidis (2007) considered the quality factor as one of the most important variables affecting the brand image. In particular, they may cause great damage to the brand image depending on the performance risk of the brands that fail to fulfil the product promise (Horton, 1976). Performance risk arises because the product quality is lower than perceived and is related to purchase intention (Ha, 2002).

Similarly, Yoo and Donthu (2002) found that product quality is related to brand value. In addition, Gill et al. (2007) found a strong relationship between product quality and purchasing intention. In light of the developing literature, it is thought that similar results are likely to give the same results in the sports nutritional supplements industry. In line with this information, the hypotheses 2^a and 2^b of this study were created as follows.

- H2^a: Sports nutritional supplements consumers' perceived functional value of product performance/quality positively influences the brand attachment.
 H2^b: Sports nutritional supplements consumers' perceived functional value of product performance/quality positively influences the purchase intention.

Today, many people give crucial emotional reactions such as happiness and satisfaction due to a number of symbolic meanings (health, status, etc.) that brands offer

(Kumar et al., 2009). In this context, LeBlanc and Nguyen (2001) define perceived emotional value as the product ability to evoke emotions or emotional states. Perceived emotional value is associated with satisfaction arising from the consumption of products. In this sense, consumers display the behavior of re-purchasing products of brands that they emotionally perceive value (Asshidin et al., 2016). Similarly, Dodds et al. (2016) found a relationship between the perceived emotional value and repurchase behavior. Lojacono and Zaccai (2004) stated that the perceived emotional value may provide important advantages to important brands in competitive sectors. In addition, positive feelings towards the brand and its products are associated with many structures on the way to the brand attachment (Sierra and McQuitty, 2005). In line with this information, the 3^a and 3^b hypotheses of this study are as follows.

- H3^a: Sports nutritional supplements consumers' perceived emotional value of the product positively influences the brand attachment.
 H3^b: Sports nutritional supplements consumers' perceived emotional value of the product positively influences the purchase intention.

The social dimension of consumption can be understood from a symbolic interactionism perspective that emphasizes the importance of products when preparing the ground for a large number of social roles that people play (Belk, 1988; Solomon, 1983). Similarly, Sweeney and Soutar (2001) define social value as the utility derived from the product's ability to enhance social self-concept. Consumers consider the connection of a product with special reference groups and try to classify their identity, promote their image, and ultimately gain or reflect the symbolic value of the product (Park et al., 1986). It is a social action in which the identity of the consumer can be produced and reproduced (Firat and Venkatesh, 1993). It gives a good brand impression of the social symbolism of the product perceived by consumers (Rose et al., 1994). Gill et al. (2007) found that the social value perceived by consumers is positively related to the purchasing intention. In this context, the hypotheses 4^a and 4^b of this study were formed as follows:

- H4^a: Sports nutritional supplements consumers' perceived social value of the product positively influences brand attachment.
 H4^b: Sports nutritional supplements consumers' perceived social value of the product positively influences purchase intention.

According to Park et al. (2010), brand attachment explains the strength of the link that connects the consumer with the brand. As stated by Tsai (2011), the concept of brand attachment is based on the

interpersonal attachment theory created by Bowlby (1979) but further developed by Simpson et al. (2007) and Gillath et al. (2008). The theory applied to the brand attachment paradigm has revealed that customers have an innate inclination to connect to some brands (Pawle and Cooper, 2006; Parish and Holloway, 2010). According to Priester et al. (2010), a brand with a high score on reputation, performance, trust, sensuality, sincerity, passion and mystery can increase the intensity of attachment regardless of the category it belongs to Tsai (2011). Researches in the literature reveal the effect of brand attachment on purchasing intention (Lin et al., 2011; Khan et al., 2020) in the context of different sectors. As a result, based on on-going discussions and empirical evidence, the brand attachment can be expected to be a predictor of the purchasing intention. For this reason, the 5th Hypothesis of this study was formed as follows.

H5: Sports nutritional supplements consumers' brand attachment positively influences purchase intention.

MATERIALS AND METHODS

Although consumer perceived value is so important in the success of the brands, it has been determined that empirical research on the subject of growing sports nutritional supplements has not been conducted. In line with this information, the purpose of this research is to empirically test the effects of multiple perceived values related to brands of sports nutritional supplements on brand attachment and purchase decisions.

In line with these explanations, this study has been designed in 3 main stages. First of all, research hypotheses have been developed in light of the literature. The hypotheses put forward were analysed in accordance with the basic methodological principles of SEM. The results determined were discussed in the context of the related literature along with recommendations for scholars in the field. In this respect, following issues will be included.

Sample and data collection

Within the scope of the research, a total of 425 participants, who are members of various gyms in Eskişehir, Turkey, were reached. The questionnaire forms were distributed by the researchers. Before the questionnaire forms were distributed, the participants were asked if they used sports nutritional supplements. Those who stated that they used supplements were given detailed information about the objectives of the research and were asked if they would like to participate in the research. In this context, voluntariness was taken as the basis for participation in the research. Participants

were asked to think about sports nutritional supplements they have recently purchased and to answer the questionnaire accordingly. The questionnaires were answered by the participants between 5-10 minutes and delivered to the researchers. 452 questionnaires were distributed in total and due to reasons such as missing coding, undisciplined coding, etc., a total of 27 questionnaires were excluded from the scope of the research.

Measurements and measures of research constructs

The measurement tools used in the research were created by deriving from similar structures used in the literature. In this context, the expressions of functional-price/value for money, functional value (performance/quality), emotional and social dimensions of value product, and purchasing intention used in Wang (2010) were used for this study. For the brand attachment structure, the expressions of the structure created by Chinomona (2013) were used. All the structures created were measured in the 5-Likert type (5-Strongly Agree; 1-Strongly Disagree).

Data analysis

Within the scope of the research, the methodological principles of SEM, considered to be the most appropriate method to measure empirically structures that are considered to be related to multiple and interrelated, were followed (Hair et al., 2010). In this context, the research data were analysed through the AMOS v20 package program with a two-stage approach, measurement and structural model. The translation-back-translation method proposed by Hambleton and Kanjee (1993) was used to ensure measurement equivalence. First of all, all the expressions were translated into Turkish and then translated back to English, and measurement equivalence was provided. In order to finalize the questionnaire form, Babbie (1998) suggested a pilot study with the individuals in the sample. The questionnaire form was distributed to 22 people in the research sample and the research form was finalized with some feedback from them.

RESULTS

Measurement model

Within the scope of measurement model, CFA (confirmatory factor analysis) was applied to all structures that were included in the research. The fit indexes resulting from the analyses were found to be above the limits stated in the literature ($\chi^2 = 318.274$, $p = 0.000$,

X²/SD = 1.992, GFI = 0.911, AGFI = 0.882, CFI = 0.921, TLI = 0.923, IFI = 0.935, RMSEA = 0.057).

In order to determine the convergent validity of the research structures, Fornell and Larcker (1981) stated that AVE (average variance extracted) values should be calculated. In this context, AVE values of all structures included in the study were calculated and it was

determined that all values are over the limit (0.5) stated by Hair et al. (2010). Cronbach's alpha and CR (composite reliability) value is used to reveal the reliability of research structures (Malhotra et al., 2006). Cronbach's alpha and CR values of all structures included in the study were found to be above the limits (0.7) expressed in the literature. (Table 1)

Table 1. Structures related to measurement model and expressions about structures.

Structures	Factor load
Functional value (price/value for money) (CR: .725), (Cronbach's alpha: .725), (AVE: .569)	
The product is reasonably priced	.82
The product offers value for the money	.72
The product is a good product for the price	.81
The product would be economical	.89
Functional value (performance/quality) (CR: .946), (Cronbach's alpha: .945), (AVE: .854)	
The product has consistent quality	.75
The product is well made	.85
The product has an acceptable standard of quality	.88
The product has good workmanship	.82
The product would perform consistently.	.72
Emotional value (CR: .920), (Cronbach's alpha: .922), (AVE: .745)	
The product is one that I would enjoy	.81
The product would make me want to use it	.89
The product is one that I would feel relaxed about using	.72
The product would make me feel good	.88
The product would give me pleasure	.91
Social value (CR: .806), (Cronbach's alpha: .825), (AVE: .511)	
The product would help me to feel acceptable	.79
The product would improve the way I am perceived	.76
The product would make a good impression on other people	.83
The product would give its owner social approval	.89
Brand Attachment (CR: .769), (Cronbach's alpha: .801), (AVE: .547)	
I am strongly passionate about the brand	.91
The brand induces strong passion in me.	.89
I long to put the brand into my possession.	.87
I may make necessary sacrifices to acquire the brand	.75
Purchase Intention (CR: .769), (Cronbach's alpha: .801), (AVE: .547)	
The brand is my preferred brand over other similar brands	.82
I am willing to commend the product	.88
I am willing to buy the product	.87
Shopping likelihood is high for me	.79

Note: **CR:** Composite Reliability, **AVE:** Average Variance Extracted.

Structural model

The measurement model created within the scope of the research has been confirmed as a result of the analyses.

In this context, the second phase of the SEM procedure was launched and the compatibility of the structural model and empirical data was tested. As a result of the analyses, the model has been shown to have acceptable

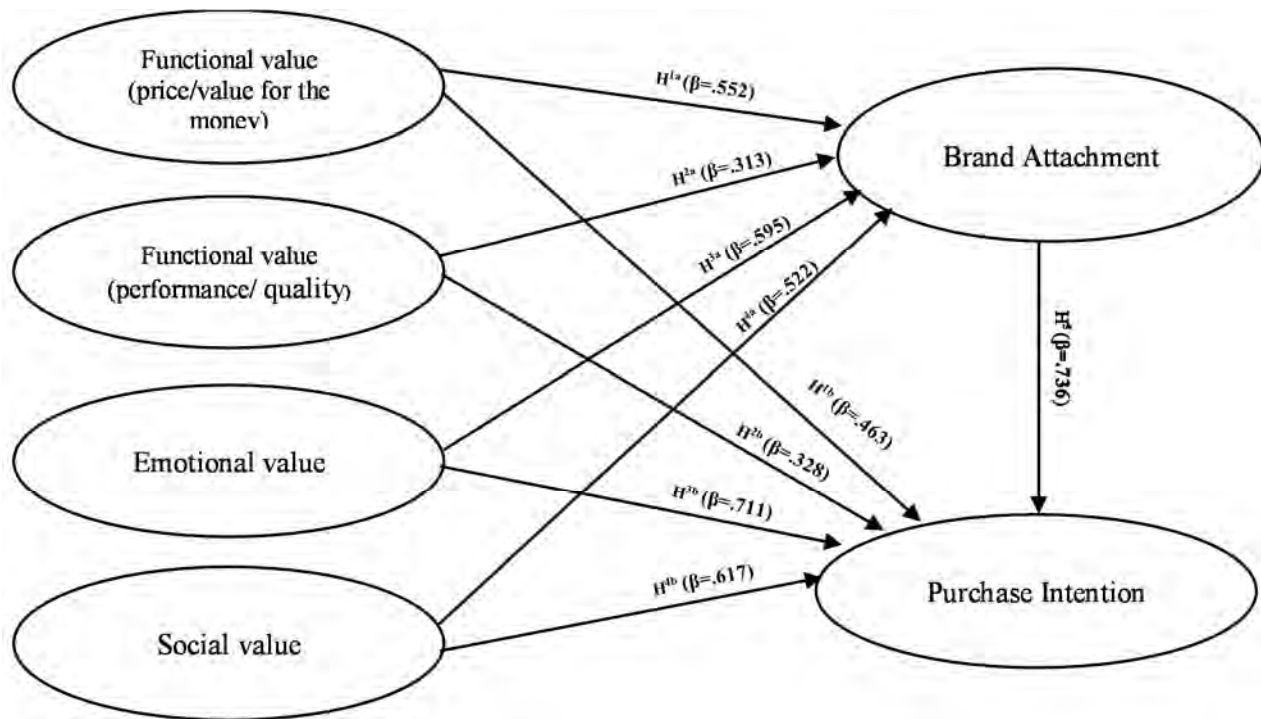


Figure 1. The model related to the research hypothesis.

Table 2. Path coefficients results.

Analysis	Path Coefficient	Result
H ^{1a} Brand Attachment <--- Functional value (price/value for money)	.552	Accepted**
H ^{1b} Purchase Intention<--- Functional value (price/value for money)	.463	Accepted**
H ^{2a} Brand Attachment <--- Functional value (performance/quality)	.318	Accepted**
H ^{2b} Purchase Intention<--- Functional value (performance/quality)	.328	Accepted**
H ^{3a} Brand Attachment <--- Emotional value	.595	Accepted**
H ^{3b} Purchase Intention<--- Emotional value	.711	Accepted**
H ^{4a} Brand Attachment <--- Social value	.522	Accepted**
H ^{4b} Purchase Intention<--- Social value	.617	Accepted**
H ^{4b} Purchase Intention<--- Brand Attachment	.736	Accepted**

goodness of fit values ($\chi^2 = 507.849$ $p = 0.000$, $\chi^2/SD = 1.872$, $GFI = 0.89$, $AGFI = 0.86$, $CFI = 0.92$, $TLI = 0.93$, $IFI = 0.92$, $RMSEA = 0.063$).

In line with the basic methodological principles of SEM modeling, the research model related to the hypotheses proposed in this research has been tested (Figure 1). As can be seen in Table 2, all research hypotheses were accepted at $p < 0.01$ significance level. It has been determined that the purchase intention for multiple perceived value is an important predictor ($p < 0.01$; $\beta = .711$). In addition, although the lowest level path coefficient obtained within the scope of the research was significant, it was determined in the effect of the functional value (performance/quality) structure on the brand attachment ($p < 0.01$; $\beta = .318$).

DISCUSSION

This research has been carried out to investigate the effects of multiple perceived values on sports nutritional supplements on brand attachment and purchase intention. The acceptance of the hypotheses put forward within the scope of the research as a result of the analyses has provided empirical evidence for the literature.

The fact that all structures related to the multiple perceived values have an impact on brand attachment and purchase intention reveals that these dimensions should be taken into account in many aspects from marketing to product design. Traditional product design is mainly performance-oriented. Only performance-oriented

products are insufficient to meet the needs of today's consumers (Wang, 2010). From the design of the packaging to the product content and the retail stands, consumers should be warned by using a number of strategies such as aesthetics, entertainment, and image (Park et al., 1986). In this sense, athletes' nutritional supplement producers should determine consumer values suitable for the spirit of the age in the context of their target audiences and develop strategies for this. Specifically, determining consumer perceptions of perceived value can create targeted marketing strategies for different segments, and marketing communications that address critical motivations that drive WOM (Word of mouth) should be planned in this sense.

Choi and Kim (2013) found that the increased quality perceived by consumers significantly enhanced in perceived social, functional and emotional value. It was determined in the research conducted by Choi and Kim (2013) that the perceived social, functional and emotional value is an important predictor of brand satisfaction. Lee and Back (2010) found that brand satisfaction increases when the social value perceived by the consumers overlaps with their own values. It can be stated that these results are supported by the results of this research in the context of sports nutritional supplements. The fact that sports nutritional supplements brands focus on activities that may create social and emotional value on the subject will contribute significantly to making a difference in terms of competition. In addition, perceived value dimensions that are considered important by existing customers can attract new customers by emphasizing their marketing activities, so that similar customers can be directed to the brand based on the value perceived by a similar customer.

Many studies in the literature regarding brand (Kim et al., 2016; Wang, 2010) have found that almost all structures (attachment, loyalty, satisfaction, etc.) related to the brand affect the purchasing behavior. Within the scope of this research, the results related to brand attachment and purchase intention have contributed to the related literature in the context of sports nutritional supplements. In this case, sports nutritional supplements brands should conduct studies on brand attachments for their target audiences.

Limitations and future research

Although this research provides empirical evidence on the brand attachment and purchasing intention of the multiple perceived value of sports nutritional supplements, it has several limitations due to the nature of scientific research. The basic principles of the quantitative research methodologies used within the scope of the research were used. In this context, qualitative research methodologies can be used to obtain more in-depth results in new researches. This research has been generally aimed at sports nutritional

supplements. In the new researches to be carried out, research that will be made specifically for a brand or only a sports nutritional supplement (Whey, Creatine, etc.) can provide an in-depth insight into the literature. The data was only collected from Turkey. In this sense, new researches that will be carried out in the context of different cultures are very important in detecting intercultural interaction and difference. Finally, new models can be tested by adding different structures in the context of the literature.

REFERENCES

- Asshidin, N. H. N., Abidin, N., and Borhan, H. B. (2016).** Consumer attitude and uniqueness towards international products. *Procedia Economics and Finance*, 35: 632-638.
- Babbie, E. R. (1998).** *The Practice of Social Research* (Vol. 112). Belmont, CA.
- Baltas, G., and Argouslidis, P. C. (2007).** Consumer characteristics and demand for store brands. *International Journal of Retail and Distribution Management*.
- Belk, R. W. (1988).** Possessions and the extended self. *Journal of Consumer Research*, 15(2): 139-168.
- Bowlby, J. (1979).** On knowing what you are not supposed to know and feeling what you are not supposed to feel. *The Canadian Journal of Psychiatry*, 24(5): 403-408.
- Chinomona, R. (2013).** The influence of brand experience on brand satisfaction, trust and attachment in South Africa. *International Business and Economics Research Journal*, 12(10): 1303-1316.
- Choi, E. J., and Kim, S. H. (2013).** The study of the impact of perceived quality and value of social enterprises on customer satisfaction and re-purchase intention. *International Journal of Smart Home*, 7(1): 239-252.
- Dodds, D. M. (2016).** The effects of character education on social-emotional behavior.
- Firat, A. F., and Venkatesh, A. (1993).** Postmodernity: the age of marketing. *International Journal of Research in Marketing*, 10(3): 227-249.
- Gill, D., Byslma, B., and Ouschan, R. (2007).** Customer perceived value in a cellar door visit: the impact on behavioural intentions. *International Journal of Wine Business Research*.
- Gillath, O., Shaver, P. R., Baek, J. M., and Chun, D. S. (2008).** Genetic correlates of adult attachment style. *Personality and Social Psychology Bulletin*, 34(10): 1396-1405.
- Ha, H. Y. (2002).** The effects of consumer risk perception on pre-purchase information in online auctions: Brand, word-of-mouth, and customized information. *Journal of Computer-Mediated Communication*, 8(1), JCMC813.
- Hair, J. F., Anderson, R. E., Babin, B. J., and Black, W. C. (2010).** *Multivariate data analysis: A global perspective* (Vol. 7).
- Hambleton, R. K., and Kanjee, A. (1993).** Enhancing the Validity of Cross-Cultural Studies: Improvements in Instrument Translation Methods.
- Henriksen, L. (2012).** Comprehensive tobacco marketing restrictions: promotion, packaging, price and place. *Tobacco Control*, 21(2): 147-153.
- Horton, R. L. (1976).** The structure of perceived risk: Some further progress. *Journal of the Academy of Marketing Science*, 4(4): 694-706.
- Jang, C. W. (2005).** U.S. Patent No. 6,920,344. Washington, DC: U.S. Patent and Trademark Office.
- Khan, M. A., Panditharathna, R., and Bamber, D. (2020).** Online store brand experience impacting on online brand trust and online repurchase intention: The moderating role of online brand attachment. *European Journal of Management and Marketing Studies*, 5(1): 138-163.
- Kim, J. E., Lloyd, S., and Cervellon, M. C. (2016).** Narrative-transportation storylines in luxury brand advertising: Motivating

- consumer engagement. *Journal of Business Research*, 69(1): 304-313.
- Kim, J., Park, J., and Lim, K. (2016).** Nutrition supplements to stimulate lipolysis: A review in relation to endurance exercise capacity. *Journal of Nutritional Science and Vitaminology*, 62(3): 141-161.
- Kotler, P., and Armstrong, G. (2010).** *Principles of Marketing*. Pearson Education.
- Kumar, A., Li, G., Hong, Z., and Yang, Y. (2009).** High efficiency polymer solar cells with vertically modulated nanoscale morphology. *Nanotechnology*, 20(16): 165202.
- Larsen, D., and Watson, J. J. (2001).** A guide map to the terrain of gift value. *Psychology and Marketing*, 18(8): 889-906.
- LeBlanc, G., and Nguyen, N. (2001).** An exploratory study on the cues that signal value to members in retail co-operatives. *International Journal of Retail and Distribution Management*, 29(1): 49-59.
- Lee, J. S., and Back, K. J. (2010).** Reexamination of attendee-based brand equity. *Tourism Management*, 31(3): 395-401.
- Lin, Y. T., Chen, S. C., and Hung, C. S. (2011).** The impacts of brand equity, brand attachment, product involvement and repurchase intention on bicycle users. *African Journal of Business Management*, 5(14): 5910-5919.
- Lojacono, G., and Zaccai, G. (2004).** The evolution of the design-inspired enterprise. *MIT Sloan Management Review*, 45(3): 75.
- Malhotra, N., Hall, J., Shaw, M., and Oppenheim, P. (2006).** *Marketing research: An applied orientation*. Pearson Education Australia.
- Mathwick, C., Malhotra, N., and Rigdon, E. (2001).** Experiential value: conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77(1): 39-56.
- Parish, J. T., and Holloway, B. B. (2010).** Consumer relationship proneness: a reexamination and extension across service exchanges. *Journal of Services Marketing*, 24(1): 61-73.
- Park, C. W., Jaworski, B. J., and MacInnis, D. J. (1986).** Strategic brand concept-image management. *Journal of Marketing*, 50(4): 135-145.
- Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., and Iacobucci, D. (2010).** Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing*, 74(6): 1-17.
- Patterson, P. G. (1993).** Expectations and product performance as determinants of satisfaction for a high-involvement purchase. *Psychology and Marketing*, 10(5): 449-465.
- Pawle, J., and Cooper, P. (2006).** Measuring emotion—lovemarks, the future beyond brands. *Journal of Advertising Research*, 46(1): 38-48.
- Rose, G. M., Shoham, A., Kahle, L. R., and Batra, R. (1994).** Social values, conformity, and dress. *Journal of Applied Social Psychology*, 24(17): 1501-1519.
- Sierra, J. J., and McQuitty, S. (2005).** Service providers and customers: social exchange theory and service loyalty. *Journal of Services Marketing*, 19(6): 392-400.
- Simpson, J. A., Collins, W. A., Tran, S., and Haydon, K. C. (2007).** Attachment and the experience and expression of emotions in romantic relationships: A developmental perspective. *Journal of Personality and Social Psychology*, 92(2): 355-367.
- Sinha, I., and DeSarbo, W. S. (1998).** An integrated approach toward the spatial modeling of perceived customer value. *Journal of Marketing Research*, 35(2): 236-249.
- Solomon, M. R. (1983).** The role of products as social stimuli: A symbolic interactionism perspective. *Journal of Consumer Research*, 10(3): 319-329.
- Sundgot-Borgen, J., Berglund, B., and Torstveit, M. K. (2003).** Nutritional supplements in Norwegian elite athletes—impact of international ranking and advisors. *Scandinavian Journal of Medicine and Science in Sports*, 13(2): 138-144.
- Sweeney, J. C., and Soutar, G. N. (2001).** Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2): 203-220.
- Tsai, S. P. (2011).** Strategic relationship management and service brand marketing. *European Journal of Marketing*, 45: 1194-1213.
- Wang, E. S. T. (2010).** Impact of multiple perceived value on consumers' brand preference and purchase intention: a case of snack foods. *Journal of Food Products Marketing*, 16(4): 386-397.
- Yoo, B., and Donthu, N. (2002).** The effects of marketing education and individual cultural values on marketing ethics of students. *Journal of Marketing Education*, 24(2): 92-103.

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