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Effect of Consumption Values on Consumer Satisfaction and Brand Commitment: Investigating Functional, Emotional, Social, and Epistemic Values in the Running Shoes Market

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ABSTRACT

Firms can acquire sustainable competitive advantages by managing brand relationships and consumption values. However, previous studies do not compare consumption value with consumer satisfaction and brand commitment. Consumption value theory postulates that functional, emotional, social, and epistemic values enhance brand relationships. However, the most effective element of consumption values on consumer satisfaction or brand commitment is different. Specifically regarding running shoes, this article empirically compares functional, emotional, social, and epistemic values with consumer satisfaction and brand commitment. Using a mediated–moderation regression model, this article collected 844 Japanese samples from a marathon in Kobe, Japan, and tested how multiple consumption values affected consumer satisfaction and brand commitment, moderated by age. The results show that consumption values except epistemic value have positive effects on consumer satisfaction and brand commitment. In particular, this article uncovers the moderating effect of age in social values and consumer satisfaction. Specifically, social values affect consumer satisfaction when consumers are under 39 years old. This paper also found that functional value and social value have the strongest effect on consumer satisfaction and brand commitment, respectively, compared with other values. Contravening consumption value theory, our data suggests that epistemic value impedes brand commitment.

Keywords: Consumption Values Theory, Consumer Satisfaction, Brand Commitment, Running Shoes
JEL Classifications: M10, M21, M31

1. INTRODUCTION

Building a relationship between a brand and consumer can improve consumer satisfaction and brand commitment (Gundlach et al., 1995; Beatson et al., 2006). Satisfied and committed consumers tend to purchase products of the same brands repeatedly. They also generate positive word of mouth and improve the brand's recognition. Hence, firms obtain sustainable, competitive advantages by managing their brands (Royo-Vela and Casamassima, 2011; Su et al., 2016).

Studies regarding brand relationships, especially consumer satisfaction and brand commitment, have considered them as an outcome of firms' marketing activities (Anderson et al., 1994; Morgan and Hunt, 1994; Iglesias et al., 2011). Other studies have also investigated consumption values (Beatson et al., 2006; Tseng and Lo, 2011); these values explain why consumers choose one product over another (Sheth et al., 1991; Sweeney and Soutar, 2001). Consumers determine the benefits they derive from brands and then evaluate their brand commitment and satisfaction.

Consumption values comprise functional, emotional, social, epistemic, and conditional values (Sheth et al., 1991a; 1991b). Surprisingly, most studies have focused on only one or two consumption value components to investigate brand relationships,

which seem to be insufficient. Consumption value theory considers the five components that affect consumer behavior and analyzes what affects them. The effectiveness of consumption value theory's components can be applied to specific situations. This implies that managers' marketing strategies and consumers' perceptions affect brand relationships, including customer satisfaction and brand commitment (Mabkhot et al., 2016; Khoironi et al., 2018). Therefore, this study focuses on these three factors. Although the importance of the effect on consumer satisfaction and brand commitment studies is recognized, not enough studies compare how consumption values relate to consumer satisfaction and brand commitment.

Different from other fast-moving consumer goods (FMCG), the running shoes category incorporates a large number of enthusiastic consumers. This is also true for other sports products, whose consumer brand preferences are highly specific. Most consumption value studies consider FMCG. Hence, we anticipate that this article will greatly impact the literature.

This article investigates relationships between consumption values and consumer satisfaction and brand commitment. Data were collected at the 2018 marathon in Kobe, Japan, which generated 844 valid questionnaires. The article's thesis is tested empirically and discussed, after which a conclusion is presented.

2. LITERATURE REVIEW

This article investigates the relationship between components of consumption values and consumer satisfaction and brand commitment, focusing on the relative effects of consumption values. Consumers purchase products or services to satisfy themselves, and the purpose of consumer behavior and marketing is to maximize consumer satisfaction (Veloutsou et al., 2005), which is a consumer's consumption-related fulfillment obtained from products or services (Oliver, 1996; Paulssen and Birk, 2007). Generally, consumers retain their running shoes for a long time. However, if a consumer is unsatisfied with this product, they often purchase another pair. Marketers are also required to manage brand commitment (Wong et al., 2019). Consumers are cooperators supporting the brand when relationships between brand and consumer are strong (Morgan and Hunt, 1994; Shukla et al., 2016). A highly committed consumer is less sensitive to product prices (Hess and Story, 2005) and poor brand reputation (Story and Hess and 2010). Consumers also have high switching costs when replacing products (Evanschitzky and Wunderlich, 2006; Iglesias et al., 2019). This article defines brand commitment as an emotional bond between a brand and consumer (Bartikowski and Walsh, 2011; Um and Kim, 2016, Su et al., 2016; Kuo and Hou, 2017). Consumers with high brand commitments often support brands for a long time. Therefore, generating strong brand commitments within consumers is critical for firms.

2.1. Consumption Values

Consumer satisfaction and brand commitment, which build customer loyalty, are created by marketing activities (Anderson et al., 1994; Morgan and Hunt, 1994; Iglesias et al., 2011). Consumption values determine consumers' choices, satisfaction, and brand commitment (Tseng and Lo, 2011; Poushneh and Vasquez-Parraga, 2019). People evaluate products and services in various ways. For example, Sheth et al. (1991a; 1991b) conceptualized values influencing consumer behavior and explored five value dimensions: functional, emotional, social, epistemic, and conditional.

2.1.1. Functional value

Functional value refers to "value through the possession of salient functional, utilitarian, or physical attributes" (Sheth et al., 1991a). Quality and price, the primary elements of functional value, are trade-off relationships (Cravens et al., 1988; Sweeney et al., 1999).

Consumers recognize price as an indicator of quality (inexpensive products or services are generally considered poor quality) (Peter and Tarpey, 1975; Zeithaml, 1988). A money-conscious consumer attempts to maximize quality despite low costs. In this way, functional value comprises both quality and price elements (Sweeney and Soutar, 2001).

Anderson et al. (1994) found that functional value can enhance consumer satisfaction. Sweeney and Soutar (1999) also found relationships among product quality, perceived value for money, and willingness to buy. For running shoes, consumers' functional value relates to comfort, specifications, and price. Comfort in running shoes can prevent fatigue and is important for long-distance running. Specifications include shock absorption and light weight. Wong et al. (2019) did not find a relationship between functional value and brand commitment in the smartphone category, possibly because many smartphones have similar features. By contrast, because of the widely varied characteristics of different feet, the functional value of running shoes has greater brand differentiation than smartphones. Running shoes may also influence a runner's style. Running shoes' repurchase rates improve with comfort, good perceived specifications, and value for money, and consumers' repurchase intentions parallel their brand commitment (Shukla et al., 2016; Wong et al., 2019). Based on these conclusions, H1a and H1b are proposed.

H1a: Functional value has a positive effect on consumer satisfaction.

H1b: Functional value has a positive effect on brand commitment.

2.1.2. Emotional value

Emotional value refers to "value when associated with specific feelings or when they facilitate or perpetuate feelings" (Sheth et al., 1991a). Emotion always accompanies a consumer's brand choice behavior. When one chooses a brand irrationally, the action is often influenced by emotions and affections. The main elements of emotional value are sentiments, feelings, and aesthetics (Brakus et al., 2009; Sheth et al., 1991a). Holbrook and Hirschman (1982) argued that emotions influence consumers' brand choice behavior. Holbrook (1999), who used the term "hedonic" to express emotional value, suggested that consumer experience and the aesthetics of products fulfill their needs.

Emotional value is sometimes emphasized more than functional value (Topaloglu and Gokalp, 2018). Positive feelings about a brand can substitute for functional value. Some research focuses

on the relationship between emotional value and consumer satisfaction (i.e., Meyer and Schwager, 2007; Iglesias et al., 2019). This is particularly significant in sports products because it has been suggested in the studies of sports management that controlling mental condition influences sport performance (Vernacchia and Henschen, 2008; Gould and Ian, 2009). Runners can control their mental condition by the running shoes they own. This means that the emotion brought from their shoes can affect the runner's performance. Therefore, consumers' satisfaction with a brand increases if that brand enhances consumers' feelings and enjoyment. Although emotional value also generates brand commitment (Gilliland and Bello, 2002), this effect's findings seem to be divided. For instance, Ramaseshan and Stein (2014) found a relationship between emotional value and brand commitment in the categories of consumer products (Coca-Cola), consumer electronics (Apple), and fast food services (McDonalds). Iglesias et al. (2019) also found similar relationships in the banking services industry. However, Francisco-Maffezzolli et al. (2014) evinced the lack of relationships between emotional value and brand commitment in the perfume and bath soap category.

Runners, who are greatly fond of their running shoes, can also be incredibly loyal to one brand. Individuals who take running seriously purchase a new pair of running shoes annually. Therefore, brand commitment is important in this category. This leads to H2a and H2b:

H2a: Emotional value has a positive effect on consumer satisfaction.

H2b: Emotional value has a positive effect on brand commitment.

2.1.3. Social value

Social value refers to "value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural ethnic groups" (Sheth et al., 1991a). Brand choices have a social significance, which is called reference group consumption (Park and Lessig, 1977; McCracken, 1989; Escalas and Bettman, 2005). Value-expressive consumption is one of the consumer behaviors affected by reference group consumption (Kelman, 1961; Park and Lessig, 1977). Consumers express themselves by using certain products, and their choices can relate to a group. Runners wear only a few items, such as running shoes, running clothes, a wrist watch, and occasionally sunglasses and often only minimally display product preferences. Gallarza and Saura (2006) found that sporting events may have a noticeable effect on consumer satisfaction. For instance, marathons mean several things for runners, including training, achieving a personal record, and tourism. Therefore, runners' consumer satisfaction is enhanced by perceived social values.

Because consumers project their self-image upon brands, brand commitment increases if the brand is close to an idealized image. A brand's social image is built by a reference group called the brand community (Zhou et al., 2011). Mathwick et al. (2008) indicated that social values can enhance a sense of belonging to a brand community, which can influence brand commitment (Zhou et al., 2011; Kuo and Feng, 2013). When consumers identify with a brand, brand commitment is enhanced (Zhou et al., 2011). Luxury and high status are also important elements of social value. Goldsmith et al. (2012) found that these elements increased brand loyalty in the apparel product category. Luxury and high-status brands, which often are premium-priced, enhance consumers' self-esteem (Festinger, 1957). As a result, luxury and high status can represent important brand commitments. Hence, we propose H3a and H3b:

H3a: Social value has a positive effect on consumer satisfaction.

H3b: Social value has a positive effect on brand commitment.

2.1.4. Epistemic value

Epistemic value refers to "value through the capacity to provide something new or different" (Sheth et al., 1991a). Consumer curiosity, novelty, a desire for knowledge, and variety are elements of epistemic value. Novelty fulfills consumers' desire for new things (Hirschman, 1980), which was called by Rogers (1976) as innovation-seeking behavior. New features are frequently launched in the running shoes market, and runners often seek new trends. Variety fulfills consumers' desire for robust features (McAlister, 1982; McAlister and Passemier, 1982). Brands generally manufacture numerous types of running shoes. For example, in 2019, Nike had about 60 types and Asics had about 400 types of running shoes, including different colors. New running shoe styles create epistemic value for runners.

Newly developed products potentially enhance runners' goals while improving their form and style. They seek unusual and unique aspects in new running shoes. Large product variety offers consumers many options, allowing runners to discover shoes that fit their individual needs. Therefore, product novelty and variety positively affect consumer satisfaction.

As noted by Khan and Mohsin (2017), epistemic value also positively impacts brand commitment because the value can lead to repurchases. As long as consumers seek new information regarding brands or products, their brand commitment will remain strong. Wong et al. (2019) also found a relationship between epistemic value and brand commitment in the smartphone category. By offering a variety of options, manufacturers generate brand confidence and commitment. Accordingly, H4a and H4b are proposed:

H4a: Epistemic value has a positive effect on consumer satisfaction.

H4b: Epistemic value has a positive effect on brand commitment.

Four of the five consumption value dimensions (functional, emotional, social, and epistemic) have been discussed. We exclude conditional value, which refers to "value in the presence of antecedent physical or social contingencies that enhance their functional or social value" (Sheth et al., 1991a). Conditional value arises suddenly, and consumers use its benefit temporarily (one example is an umbrella, which is only required when it is raining). Because running shoes are not used for a temporary purpose, conditional value is not a factor for this product category.

The new contribution of this article is the comparative effect of consumption values. Satisfaction is defined as a consumer's product evaluation (Oliver, 1996; Paulssen and Birk, 2007). Certain consumption values, especially product performance, are connected to these evaluations. Therefore, compared with other

consumption values, functional value is closely connected to consumer satisfaction. Functional value is consumers' perception of product performance, and brand commitment is the emotional bond between a brand and consumer. Thus, H5a and H5b are proposed:

H5a: Functional value has the strongest effect on consumer satisfaction, compared with other values.

H5b: Emotional value has the strongest effect on brand commitment, compared with other values.

3. METHOD

This article used questionnaires to construct a quantitative analysis. Constructs were based on existing scale items in the literature (Table 1). A 5-point Likert scale was used to record all responses, ranging from 1 "strongly disagree" to 5 "strongly agree." To avoid misunderstandings by respondents, we pretested our questionnaire regarding the 2017 Kobe marathon that attracted 20,000 runners. Initially, we translated the English questionnaire into Japanese using a double-blind, back translation process. Second, we asked 12 respondents whether they truly understood the questionnaire. Lastly, we collected 839 Japanese sample questionnaires and, in a pilot study, confirmed that all respondents answered adequately.

After the pilot study, we collected data at the 2018 Kobe marathon. The questionnaire, written in Japanese, was distributed at the reception desk. Of the 855 completed questionnaires, 844 (98.7%) were validated. Using a 7-point Likert scale, we also asked for the respondents' ages. Approximately 35.5% of the runners were aged 40-49 years, and 75.5 % were male. On average, the respondents ran 136.9 km/month and had already participated in an average of 10.6 marathons. Respondents purchased an average of 4.3 new pairs of running shoes every 3 years. Although 72.7% of respondents said that they were interested in running shoes, most respondents said that they had not sufficient knowledge regarding running shoes. Table 2 shows descriptive statistics about the respondents.

4. RESULTS

This article investigated the relationships between consumption values and consumer satisfaction and brand commitment. Additionally, as a *post hoc* test, we considered the moderating effect of age. Cornelis et al. (2009) found relationships between age and conservatism. This study suggests that consumption values change with age. To analyze this effect, we used a mediated–moderation model with multiple regressions and interactions (R 3.6.0. pequod package). Considering the moderating effect, all variables were centered for reducing multicollinearity (Aiken and West, 1991; Cronbach, 1987).

We assessed measurement scales before the analysis. First, a confirmatory factor analysis assessed each construct. Items with factor loading smaller than 0.40 were removed (Hair et al., 2014). We confirmed that all factor loadings were over 0.49 and that convergent validity was supported. Second, Cronbach's alpha, composite reliability (CR), and omega were checked (McDonald, 1978; Hogan et al., 2000), which were over 0.65 for all constructs. Average variance extracted (AVE) value also was checked, and all AVE coefficients were higher than 0.40. These indicators supported internal consistency, construct reliability, and convergent validity (Table 3). Third, we assessed discriminant validity. In Table 4, discriminant validity was evaluated by comparing AVE, maximum shared variance (MSV), and average shared variance. All AVE coefficients were higher than MSV and ASV in each construct,

Table 1: Constructs and scale items¥

Constructs	Items	References
Consumption value		
Functional value	FN1: I feel that my running shoes are comfortable FN2: I feel that my running shoes provide better specifications and performance FN3: I feel that my running shoes are priced appropriately FN4: I feel that my running shoes relieve fatigue	Sweeney and Soutar (2001), Punniyamoorthy and Raj (2007)
Emotional value	EM1: My running shoes make me feel good EM2: My running shoes make me feel at ease EM3: When I wear my running shoes, running is more exciting	Sweeney and Soutar (2001), Punniyamoorthy and Raj (2007)
Social value	SO1: When I wear my running shoes, they help me express my own character SO2: My running shoes are a status symbol SO3: When I wear my running shoes, they boost my image	Sweeney and Soutar (2001), Punniyamoorthy and Raj (2007)
Epistemic value	EP1: I feel new in my running shoes EP2: I feel different from others in my running shoes EP3: I feel unique in my running shoes EP4: I feel unusual in my running shoes	Yim et al. (2012), Chowdhury et al. (1998)
Brand relationships		
Consumer satisfaction	CS1: I am satisfied with these running shoes CS2: My running shoes are better than I expected CS3: Purchasing my running shoes was a smart choice	Donio et al. (2006), Oliver and Swan (1989)
Brand commitment	BC1: I love the brand of my running shoes BC2: I persist because my brand of running shoes is best for me BC3: I support my brand of running shoes	Coulter et al. (2003)

Source: The authors

Table 2: Descriptive statistics about the sample

Sample profile	Classification	%
Age (years) (mean: 4.13, median: 4.00)	≤19	0.7
	20-29	9.1
	30-39	15.9
	40-49	35.5
	50-59	30.0
	60-69	7.3
	≥70	1.4
Gender	Male	75.5
(mean: 1.25, median: 1.00)	Female	24.5
Running distance per month (km)	≤49	13.0
(mean: 136.98, median: 100.00)	50-99	16.7
	100-149	25.0
	150-199	16.2
	200-249	13.4
	250-299	6.2
	300-349	5.8
	≥350	2.7
Number of marathons participated	≤4	34.0
in (mean: 10.62, median: 7.00)	5-9	24.5
	10-14	17.7
	15-19	7.0
	20-24	6.9
	25-29	1.7
	30-34	3.7
	≥35	4.6
Pairs of running shoes purchased	<1	9.2
annually (mean: 4.34, median: 3.00)	2	20.1
	3	24.5
	4	11.8
	5	13.0
	6-7	10.2
	8-9	2.5
	10-11	5.1
	12-13	0.5
	14-15	1.4
	≥16	1.5
Interest in running shoes	0: Yes	72.7
(mean: 0.27, median: 0)	1: No	27.3
Sufficient knowledge about running	0: Yes	32.2
shoes (mean: 0.68, median: 1)	1: No	67.8

Source: The authors

supporting discriminant validity. From these steps, we confirmed measurement validity, so these scales were used for analysis.

Table 5 describes the results of the multiple regression analysis. The independent variables are consumption values (functional, social, emotional, and epistemic), and the dependent variables are consumer satisfaction and brand commitment. To control multicollinearity, we conducted the variance inflation factor (VIF) test, and all variables were below 5 as suggested by Hair et al. (2014); the average VIF score of all variables was 1.61, and the highest score was 2.47. Therefore, multicollinearity was not observed.

Results for Model 1-2 indicate the effects of consumption values on consumer satisfaction (Adjusted $R^2 = 0.49$, F-value = 74.51, $P < 0.01$) and tests H1a, H2a, H3a, and H4a. This model shows that the effects of functional ($B = 0.56$, $P < 0.01$) and emotional ($B = 0.19$, $P < 0.01$) values on consumer satisfaction are positive and significant at the 0.01 level. We find that functional value has a stronger effect on consumer satisfaction than emotional value. We also find no effect from social and epistemic values on consumer satisfaction. According to this model, H1a, H2a, and H5a are supported.

Model 2-2 indicates the effect of consumption values on brand commitment (Adjusted $R^2 = 0.28$, F-value = 30.26, $P < 0.01$) and tests H1b, H2b, H3b, and H4b. This model shows that the effects of all consumption values are significant at the 0.01 level, with functional ($B = 0.28$, $P < 0.01$), emotional ($B = 0.14$, $P < 0.01$), and social ($B = 0.37$, $P < 0.01$) values all having positive effects. Although, epistemic value ($B = -0.10$, $P < 0.05$) has a negative effect on brand commitment compared with functional, emotional, and epistemic values. We find that social value has the strongest effect on brand commitment. According to this model, H1b, H2b, and H3b are supported.

As noted above, H3a, H4a, and H4b are not supported by the main regression effect. To further investigate these hypotheses, this article examines the moderating effect of age as *post hoc* analyses 1 and 2. We find that social value did not affect consumer satisfaction in Model 1-2, but the interaction between social value by age and consumer satisfaction was significant ($B = -0.06$, $P < 0.05$) in *post hoc* analysis 1. Other moderating effects of age are not found. As shown in *post hoc* analyses 1 and 2, the main effect of consumption values is huge, so an interaction effect is not observed. However, the method of interaction between social value by age and consumer value is interesting. Figure 1 shows a *post hoc*, simple-slope analysis. Following Cohen and Cohen (1983), we calculated social value perception using two categories: one standard deviation below and above the mean score. Social value has a significant, positive effect on consumer satisfaction when a consumer is young ($B = 0.11$, $P < 0.01$). However, when consumers are older, we find no significant relationship between social value and consumer satisfaction ($B = -0.02$, p = n.s.). Hence, H3a was partially supported.

5. DISCUSSION

This article investigates the effect of consumption values on consumer satisfaction and brand commitment. By building hypotheses based on the literature, we conclude that consumer satisfaction and brand commitment are affected by multiple consumption values. However, the result showed that consumption values have a different effect on consumer satisfaction and brand commitment in the running shoes category.

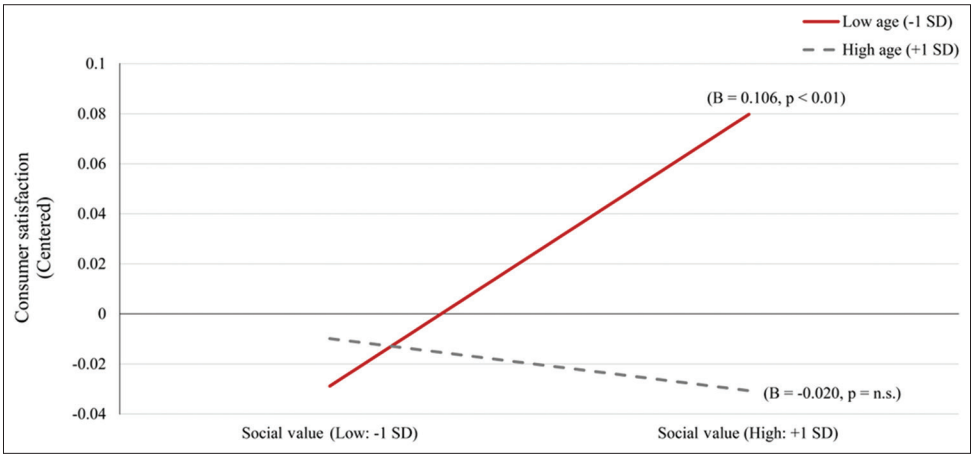
H1a and H1b being supported means that functional value has a positive effect on consumer satisfaction and brand commitment. Functional value affects consumer satisfaction more than other consumption values. This suggests that comfort and specifications are critically important for runners, and running shoes are important for running performance and effective training. The functional needs of running shoes vary because running styles and levels differ. Other sports products are similar in this regard. Compared with emotional, social, and epistemic values, product evaluation is closely connected to consumer satisfaction. As product performance by functionality is understandably important for consumers, functional value can enhance consumer satisfaction

Table 3: Convergent validity

Construct	Items	Mean	SD	Item-to-total	Factor loading	Cronbach's alpha (α)	Composite reliability (CR)	Omega value (ω)	Average variance extracted (AVE)
Consumption value									
Functional value	FN1	4.16	0.62	0.85	0.71	0.68	0.68	0.69	0.42
	FN2	4.00	0.72	0.83	0.69				
	FN3	3.83	0.67	-	Deleted				
	FN4	3.78	0.80	0.64	0.53				
Emotional value	EM1	3.85	0.83	0.78	0.72	0.75	0.76	0.77	0.53
	EM2	3.94	0.76	0.58	0.53				
	EM3	3.82	0.78	0.97	0.89				
Social value	SO1	3.47	0.86	0.75	0.67	0.78	0.78	0.79	0.54
	SO2	3.37	0.99	0.79	0.71				
	SO3	3.27	0.95	0.92	0.83				
Epistemic value	EP1	3.39	0.94	0.74	0.66	0.77	0.78	0.82	0.47
	EP2	3.77	0.86	0.54	0.49				
	EP3	3.01	0.94	0.88	0.79				
	EP4	3.19	0.96	0.85	0.76				
Brand relationships									
Consumer satisfaction	CS1	4.14	0.62	0.83	0.76	0.82	0.82	0.83	0.61
	CS2	3.66	0.76	0.78	0.72				
	CS3	4.02	0.68	0.94	0.86				
Brand commitment	BC1	4.05	0.78	0.87	0.83	0.89	0.89	0.90	0.74
	BC2	3.78	0.89	0.92	0.87				
	BC3	3.99	0.79	0.93	0.88				

n=844. Source: The authors

Figure 1: How social values by age interact with consumer satisfaction



Source: The authors

to a greater extent than other consumption values for running shoes. Therefore, H5a is also supported. If a consumer perceives that their running shoes are functional, their trust in the brand will be greater. Because trust in a brand is closely connected to brand commitment, this confirms the relationship between functional value and brand commitment.

As with functional value, emotional value has a positive effect on consumer satisfaction and brand commitment. Accordingly, H2a and H2b are supported. This implies that emotional and functional values increase runners' satisfaction and commitment to a brand. However, the effect of emotional value is smaller than that of functional value. This conclusion is not evident from consumption theory. Brand commitment is an important element of brand relationships. Emotional values, such as happiness, enhance the relationship between a brand and a consumer. This is a critical factor for competitive runners who will perform better if they enjoy running in their chosen shoes. Therefore, emotional values have a positive effect on consumer satisfaction and brand commitment. However, H5b is not supported because social value has the strongest effect on brand commitment instead of emotional value.

We confirm the positive effect of social value on brand commitment, which supports H3b. The effect of social value on brand commitment is stronger than that of other values. As mentioned above, social value refers to reference groups; the brand's image is created by the group who loves the brand. When runners perceive social value, they feel a sense of belonging with the brand community. This is the element of brand commitment (Zhou et al., 2011; Kuo and Feng, 2013). Functional and emotional values also have a positive effect on brand commitment. We see no relationship between social value and consumer satisfaction. To account for the moderating effect of age, we find a significant, positive effect of social value

Table 4: Discriminant validity

Consumer values	FN	EM	SO	EP
FN	0.42			
EM	0.63	0.53		
SO	0.44	0.64	0.54	
EP	0.42	0.50	0.59	0.47
Maximum shared variance (MSV)	0.40	0.41	0.41	0.35
Average shared variance (ASV)	0.13	0.18	0.16	0.13
AVE>MSV	Yes	Yes	Yes	Yes
AVE>ASV	Yes	Yes	Yes	Yes
Brand relationships		**CS**	**BC**	
CS		0.61		
BC		0.40	0.74	
Maximum shared variance (MSV)		0.16	0.16	
Average shared variance (ASV)		0.16	0.16	
AVE>MSV		Yes	Yes	
AVE>ASV		Yes	Yes	

Source: The authors. *Square root of AVE in the diagonal

on consumer satisfaction when consumers are young, which partially supports H3a. We assume that runners wear running shoes for not only running but also self-expression. This has a significant effect on consumer satisfaction for consumers below 39 years of age, suggesting that low-age consumers tend to pursue self-expression needs compared with older consumer (≥ 50 years old). In contrast to functional, emotional, and epistemic values, social value is oriented by other people, and different social value perceptions vary by age.

H4a and H4b are not supported. H4 noted the effect of epistemic value on consumer satisfaction or brand commitment, and we could not find positive relationships between epistemic value and consumer satisfaction. This implies that runners are confused by variety and novelty features of running shoes. Hence, the positive effect of epistemic value on consumer satisfaction is not observed. However, we find that epistemic value has a significantly negative effect on brand commitment. This result contradicts the conclusion of Wong et al. (2019), who analyzed smartphones in Taiwan. Consumers more often feel closer to their running shoes than to their smartphones. Particularly, at marathons, running shoes can be an important issue for runners who experience strong brand commitments with these products. Epistemic value has two main elements, variety and novelty, both of which tend to weaken brand commitment. To appeal novelty, the brand needs to launch new models frequently, but consumers also tend to feel that their owned running shoes are older because of the frequent launches. Therefore, epistemic value decreases brand commitment.

5.1. Theoretical Implications

This article contributes to the literature by uncovering how different consumption values affect consumer satisfaction and brand commitment. Consumption value does not affect consumer satisfaction and brand commitment equally because each value possesses a different effect. Consumption value theory suggests that both functional and emotional values positively affect consumer satisfaction and brand commitment (Tseng and Lo, 2011; Poushneh and Vasquez-Parraga, 2019). For example, Poushneh and Vasquez-Parraga (2019) investigated the smart electronics category (smartphones and smart watches) in the United States. We find that functional value primarily generates consumer satisfaction and social value primarily generates brand commitment in the sports product category in Japan. We also suggest that moderation by age changes the effect of social value on consumer satisfaction. As a sports product, running shoes need to have functional value to enhance consumers' performance. Therefore, compared with other consumption values, functional value is closely connected to consumer satisfaction. Mental management is also important for improving sports performance. Most runners run 100 km/month for training and buy three pairs of shoes per year (Table 3). Perceiving emotional value plays a key role in managing a runner's mental condition, and the product offering emotional value will be bought repeatedly. Therefore, it is considered that emotional value enhances brand commitment. We found that social value, rather than emotional value, has the strongest effect on brand commitment. In previous studies, it is considered that emotional value has a large impact on brand commitment (i.e., Iglesias et al., 2019; Das et al., 2019). Iglesias et al. (2019) investigated consumer banking in Spain, and Das et al. (2019) investigated the apparel industry in India.

We find relationships between social value and consumer satisfaction for younger customers. Regarding tourism management studies, the effect of social value on consumer satisfaction is already confirmed (Sanchez et al., 2006). This result implies that many marathon runners are inclined toward tourism. However, we found that the trend is different between younger and older consumers. This study's result evinces that the primary factor affecting the difference in consumer satisfaction is age.

Social value drives brand commitment. Running shoes are not only sports tools but also fashion items, which some consumers regard as apparel. If their running shoes can express themselves, runners will have psychological connection with the brand. Further, running is not a team sport, but runners sharing their feelings with each through a brand community. Therefore, the positive and strongest effect of social value on brand commitment is suggested in this article, also suggesting that the sense of belonging to a brand community plays a role in enhancing social value perception.

Although this paper finds no positive relationship between epistemic value and consumer satisfaction, it confirms that epistemic value negatively affects brand commitment. It is because consumers perceiving epistemic value feel their own shoes as old and late. Running shoes belong to a relatively high-attachment product category, which influences epistemic value and brand commitment. Epistemic value offers new and unique features to consumers. In our view, brand commitment declines when consumers perceive transitions in high-attachment product categories, including running shoes.

5.2. Managerial Implications

Offering functional value to runners increases their consumer satisfaction and brand commitment. However, when new items or characteristics change rapidly, brand commitment may weaken. Maintaining consumer brand commitment requires support from retail departments. However, retailing may have difficulty communicating the concept and policy of a specific brand,

Table 5: A mediated–moderation model with multiple regressions

Variables	DV: Consumer satisfaction						DV: Brand commitment					
	Model 1-1		Model 1-2		Post-hoc analysis 1		Model 2-1		Model 2-2		Post-hoc analysis 2	
	β (t-value)	Standard β	β (t-value)	Standard β	β (t-value)	Standard β	β (t-value)	Standard β	β (t-value)	Standard β	β (t-value)	Standard β
Intercept	0.00 (0.00)	-	0.00 (0.00)	-	0.00 (0.24)	-	0.00 (0.00)	-	0.00 (0.00)	-	0.00 (0.01)	-
Functional value	0.55** (14.52)	0.469	0.56** (14.59)	0.47	0.56 ** (14.60)	0.48	0.31** (0.19)	0.19	0.28** (4.41)	0.17	0.28** (4.36)	0.17
Emotional value	0.19** (6.40)	0.240	0.19** (6.35)$^{+}$	0.24	0.19 ** (6.46)	0.24	0.16** (3.06)	0.14	0.14** (2.71)	0.12	0.14** (2.77)	0.12
Social value	0.04 (1.41)	0.050	0.05 (1.77)	0.06	0.04 (1.42)	0.05	0.37** (7.36)	0.31	0.36** (7.33)	0.31	0.37** (7.24)	0.31
Epistemic value	0.03 (1.29)	0.041	0.04 (1.51)	0.05	0.04^{+} (1.68)	0.05	−0.07 (−1.74)	−0.07	−0.09* (−2.31)	−0.09	−0.09* (−2.07)	−0.08
Sex			0.03 (1.23)	0.03	0.03 (1.33)	0.03			−0.04 (−0.96)	−0.03	−0.04 (−0.84)	−0.03
Age			−0.02* (−2.07)	−0.05	−0.02 * (−2.20)	−0.05			−0.04 (−2.43)	−0.08	−0.04 * (−2.51)	−0.08
Running distances per month			0.00 (−0.78)	−0.02	0.00 (−0.51)	−0.01			0.00 (−2.85)	−0.08	0.00** (−2.82)	−0.08
The number of participating full marathon competition			0.00 (0.40)	0.01	0.00 (0.52)	0.01			0.00** (0.51)	0.02	0.00 (0.48)	0.02
The number of purchasing running shoes per 3 year			0.00 (−0.62)	−0.02	0.00 (−0.61)	−0.012			−0.01^{+} (−1.70)	−0.06	−0.01 (−1.55)	−0.05
Interest and persistence for running shoes			0.03 (1.13)	0.03	0.03 (0.99)	0.03			−0.19** (−4.15)	−0.14	−0.19** (−4.16)	−0.14
Sufficient knowledge about running shoes			0.03 (1.06)	0.03	0.03 (1.09)	0.03			−0.07^{+} (−1.66)	−0.05	−0.07 (−1.55)	−0.05
Functional value *age					0.02 (0.64)	0.02					−0.04 (−0.63)	−0.03
Emotional value *age					0.03 (0.94)	0.04					0.05 −1.11	0.05
Social value *age					−0.06 * (−1.97)	−0.07					0.01 (0.12)	0.01
Epistemic value *age					0.02 (0.98)	0.03					0.02 (0.55)	0.02
F-value	200.04**		74.51**		55.03**		70.04**		30.26**		22.41**	
R^2	0.49		0.50		0.50		0.03		0.29		0.29	
Adjusted R^2	0.49		0.49		0.49		0.25		0.28		0.28	

**P<0.01, * P<0.05, $^{+}$P<0.10. n=844. Source: The authors

particularly if many separate brands are being sold. Epistemic value has a negative effect on brand commitment because of consumers' perception of brand transition. However, adequate communication regarding brands to consumers should prevent brand switching.

Brand-owned retail can be an important element in this effort. Continuing support by brand-owned retail also enhances customers' perceptions of emotional and social values. Emotional value has a positive effect on consumer satisfaction and brand commitment. Brands need to communicate with their consumers not only at the point of purchase but also at other times. A brand community is effective for continuing a supportive dialog with consumers, especially in an individual sport, such as running. Thanks to brand communities, consumers perceive social values, which greatly enhance brand commitment compared with functional and emotional values. Social values are especially important for consumers younger than 39 years. A continuing communication between brands and consumers increases not only consumer satisfaction but also brand commitment.

5.3. Limitations and Future Research

This paper presents several theoretical and managerial concepts but still has implications for future research. First, because this study focused on product and brand dimensions, further study on the retail dimension is needed. Retail, as well as product and brand, can influence consumers' value perceptions. Retail also plays an important role in managing consumer satisfaction and brand commitment. Second, this paper does not consider the relationship between consumer satisfaction and brand commitment. Instead, using mediated–moderation regression model, it investigates the effect of consumption values on consumer satisfaction and brand commitment. Some studies have suggested that consumer satisfaction and brand commitment affect other constructs, such as brand loyalty (Kuo and Feng, 2013; Su et al., 2016; Wong et al., 2019; Iglesias et al., 2019). Future research should consider the entire consumer journey. Third, this paper does not consider value for money and cost elements in functional value (We adopted these elements in the measurement scale for functional value but eliminated them to ensure reliability and validity). Hence, futures studies must investigate value for money and cost elements (i.e., Lichtenstein et al., 1993; Muncy, 1996). Fourth, this analysis used a questionnaire distributed at a marathon, so our sample only included people greatly interested in running shoes. Finally, this analysis targeted Japanese consumers, who are different from consumers in other countries; hence, an international comparison is a subject for a future study.

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