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Analysis of Value System of Sportswear Brand Shopper according to Crossover Shopping Pattern: Webrooming and Showrooming

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Abstract

The purpose of this study is to identify selection attributes, functional benefits, psychological benefits, and values according to crossover shopping patterns (showrooming and webrooming). To achieve objectives of this study, a survey was designed based on the means-end chain theory, using the in-depth laddering technique and APT laddering technique which understanding the linkage of A(attributes)-FB(functional benefits)-PB(psychological benefit)-V(value). These two laddering techniques were used to construct a hierarchical value map (HVM) by linking selection attributes, functional benefits, psychological benefits, and value levels.

The selection attribute items that showrooming shoppers consider important are 'price conformity', 'product information', 'product variety', and 'delivery service'. Functional benefit items were 'free purchase', 'economic benefit', 'communication', 'safety', and 'accurate Information', and psychological benefit items were 'convenience', 'relaxation', 'pleasure', 'rational consumption', and 'stability'. Finally, the value items were 'self-satisfaction', 'abundant life', 'achievement', 'happiness', and 'reasonable life'. Next, the selection attribute items that webrooming shoppers consider important are 'price conformity', 'product information', 'product variety', 'AS', 'shopping atmosphere', and 'seller service'. Functional benefit items were 'free purchase', 'economic profit', 'expression opinion', 'safety', and 'accurate information', and psychological benefit items were 'convenience', 'relaxation', 'rational consumption', and 'stability'. Finally, the value items were 'self-satisfaction', 'abundant life', 'happiness', and 'reasonable life'.

Keywords: *crossover shopping, showrooming, webrooming, laddering, hierarchical value map(HVM)*

1. Introduction

The high interest in the health of modern society has increased the number of people participating in sports, which has led to the growth of the sports brand industry. Although it suffered a downturn due to the COVID-19 pandemic, according to the Korea Federation of Textile Industries, the size of the sportswear market in 2021 in Korea grew 8% year-on-year to KRW 6.4537 trillion. This is higher than the average growth rate of

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the fashion market [1].

This growth is saturated with many domestic and foreign fashion companies entering the sportswear brand market. Moreover, distribution channels have diversified due to the emergence of online and digital channels in existing offline stores. The proportion of multi-channel shopping that consumers can select and use among these distribution channels is continuously increasing [2-3].

Multi-channel consumer is defined as a consumer who solves by using various channels rather than a single channel in the purchasing decision process for products [4]. Moreover, in the multi-channel environment, the so-called crossover shopping phenomenon in which consumers freely cross the on-line and off-line channels is increasing remarkably.

As a type of crossover shopping behavior, first of all, there is showrooming which looks at the products in the offline store and purchases the actual products online. In addition, product information can be obtained from online channels, and actual product purchase can be divided into webrooming, which is purchased in offline stores [5]. Due to the increase in crossover shopping behavior, sportswear brand companies are building omni-channels with both on-line and off-line, but research related to this is insufficient. Therefore, this study intends to analyze the hierarchical value of selection attributes, functional benefits, psychological benefits, and values targeting sportswear brand consumers.

2. Research Method

2.1. Research Procedures and Research Subjects

In order to derive items of selection attributes, functional benefits, psychological benefits, and values according to crossover shopping patterns (showrooming and webrooming), soft laddering using in-depth interviews with 10 sportswear brand consumers was conducted. In order to supplement the limitation of the number of samples and objectivity and validity of qualitative interview laddering, APT laddering was conducted on 263 adults who have purchased sports brands for the past year.

2.2. Laddering Method and Content

First, in the case of soft laddering, the laddering interview technique suggested by Kumar, Aakre & Day was used as the interview method. Based on the means-end chain theory, this technique divides users into attribute-result-value stages to enable in-depth analysis [8-9]. In other words, to understand the attributes of a particular product or behavior, the results obtained from these attributes, and the value these results are satisfied, the interviewee is constantly asked the question 'why' and continues until the ladder no longer appears [10].

Second, as a measurement method of APT laddering, we used Gutman's technique that means-end chains can be connected in a series of matrices [11]. Three APT matrices were constructed for each crossover shopping pattern for each step item derived by laddering technique using in-depth interview. Interviewee selected three selection attributes for each crossover pattern, and then displayed the connection of items that are importantly connected to each other at each stage of functional benefit, psychological benefit, and value.

3. Results

3.1. Soft Laddering Result Using In-Depth Interview

As a result of analyzing the data collected through in-depth interviews, ladders regarding selection attributes, functional benefits, psychological benefits, and values by showrooming and webrooming shopping patterns were revealed. This ladder was coded and summarized as shown in <Table 1>.

Table 1. Crossover shopping (showrooming, webrooming) selection attributes, functional benefits, psychological benefits, and items in the value stage

Step		Item
A(attributes)	Show-rooming	A1: Price Conformity, A2: Product Information, A3: Reputation of Shopping Channel, A4: Product Variety, A5: After Service, A6: Prompt/Real-Time Communication Channel, A7: Prompt/Accurate Delivery Service, A8: Payment Stability
	Web-rooming	A1: Price Conformity, A2: Product Information, A3: Reputation of Shopping Channel, A4: Diverse Product Range, A5: After Service, A6: Location/Traffic Convenience, A7: Shopping Atmosphere, A8: Seller Service
FB(functional benefits)		FB1: Free Purchase, FB2: Time Saving, FB3: Economic Profit, FB4: Expression Opinion, FB5: Communication, FB6: Sharing/Sympathy, FB7: Safety, FB8: Accurate Information
PB(psychological benefit)		PB1: Convenience, PB2: Relaxation, PB3: Diversion, PB4: Pleasure, PB5: Bonding, PB6: Rational Consumption, PB7: Stability
V(value)		V1: Self-Satisfaction, V2: Self-Esteem Enhancement, V3: Abundant Life, V4: Achievement, V5: Happiness, V6: Reasonable Life

3.2. APT Laddering Investigation Result

An implication matrix was created through the encoding of the value system presented in <Table 1>. These implication matrices are matrix tables that show the degree and frequency of direct and indirect relevance between attributes, benefits, and values [12].

First, the analysis results for the three APT matrices for [selective attribute-functional benefit], [functional benefit-psychological benefit], and [psychological benefit-value] in showrooming shopping are shown in <Table 2>, <Table 3>, and <Table 4>.

Table 2. Selection attributes and functional benefits matrix in showrooming shopping

Item	Functional Benefit								
	FB1	FB2	FB3	FB4	FB5	FB6	FB7	FB8	Total
A1(N=328)*	84	4	180	7	39	1	5	8	328
A2(N=189)*	32	19	17	8	37	12	11	53	189
A3(N=88)*	7	11	1	3	10	16	18	22	88
A4(N=124)*	36	6	9	15	38	6	2	12	124
A5(N=92)*	7	11	5	14	21	1	28	5	92
A6(N=52)*	3	12	1	6	11	12	1	6	52
A7(N=179)*	17	2	4	0	100	3	46	7	179
A8(N=48)*	2	0	2	0	3	1	38	2	48

*The total number of cases of the first three optional attributes selected by the survey subject

Table 3. Functional benefits and psychological benefits matrix in showrooming shopping

Item	Psychological Benefits							
	PB1	PB2	PB3	PB4	PB5	PB6	PB7	Total
FB1	106	48	22	21	0	30	4	231
FB2	19	5	4	11	15	6	1	61
FB3	13	22	19	32	3	149	11	249
FB4	5	1	11	8	6	16	8	55
FB5	81	48	7	12	17	44	10	219
FB6	4	1	3	10	18	5	10	51
FB7	11	3	1	3	1	26	94	139
FB8	9	3	2	2	2	38	45	101

Table 4. Psychological benefits and value matrix in showrooming shopping

Item	Value						
	V1	V2	V3	V4	V5	V6	Total
PB1	95	2	28	17	36	52	230
PB2	29	3	33	5	12	13	95
PB3	33	6	5	9	22	1	76
PB4	22	0	10	20	39	3	94
PB5	4	2	3	15	11	5	40
PB6	43	2	20	39	52	139	295
PB7	23	2	4	10	37	56	132

The analysis results in the following three APT matrices for [selective attribute-functional benefit], [functional benefit-psychological benefit], and [psychological benefit-value] in the following web-roaming shopping are shown in <Table 5>, <Table 6>, and <Table 7>.

Table 5. Selection attributes and functional benefits matrix in webrooming shopping

Item	Functional Benefit								
	FB1	FB2	FB3	FB4	FB5	FB6	FB7	FB8	Total
A1(N=133)*	23	5	85	5	7	2	2	4	133
A2(N=193)*	20	31	6	25	7	10	33	61	193
A3(N=27)*	0	2	2	4	4	3	6	6	27
A4(N=112)*	47	5	8	4	18	9	4	17	112
A5(N=108)*	4	9	6	12	19	2	46	10	108
A6(N=88)*	13	1	7	1	55	2	8	1	88
A7(N=210)*	54	17	0	44	28	38	13	16	210
A8(N=166)*	1	25	1	24	10	22	26	57	166

*The total number of cases of the first three optional attributes selected by the survey subject

Table 6. Functional benefits and ssychological benefits matrix in webrooming shopping

Item	Psychological Benefits							
	PB1	PB2	PB3	PB4	PB5	PB6	PB7	Total
FB1	56	29	23	17	1	12	6	144
FB2	23	8	11	13	23	17	14	109
FB3	4	18	6	10	1	76	3	118
FB4	11	4	10	13	23	33	19	113
FB5	30	36	9	14	7	22	9	127
FB6	1	3	13	24	28	13	6	88
FB7	6	4	3	3	1	26	78	121
FB8	14	1	6	4	6	56	68	155

Table 7. Psychological benefits and value matrix in webrooming shopping

Item	Value						
	V1	V2	V3	V4	V5	V6	Total
PB1	78	2	16	12	25	19	152
PB2	38	7	25	7	21	7	105
PB3	34	3	13	8	31	1	90
PB4	30	3	10	22	48	1	114
PB5	8	6	6	11	30	6	67
PB6	28	2	10	21	39	127	227
PB7	24	3	8	12	33	54	134

3.3. Hierarchical Value map (HVM) by Crossover Pattern

The means-end chain theory goes through a decision-making process. It is called a hierarchical value map (HVM) to create a map of means-end connections by linking the attributes, functional benefits, psychological benefits, and value levels described above [13]. Before constructing the HVM, it was constructed by identifying the high frequency of connection between horizontal and vertical items in the matrix presented above. The evaluation of which frequency is an important connection is determined by the reference cutoff set by the researcher. For the criteria of cutoff, the reference frequency was set so that the top three to five connection relationships could be derived in consideration of information and interpretation.

The criteria set for showrooming shopping are '100' for selection attribute cutoff, '30' for selection attribute-functional benefit cutoff, '25' for functional benefit-psychological benefit cutoff, and '25' for psychological benefit-value cutoff. Through these criteria, it was found that the attribute items that showrooming shoppers considered important were ‘price conformity’, ‘product information’, ‘product variety’, and ‘delivery service’. Functional benefit items were ‘free purchase’, ‘economic profit’, ‘communication’, ‘safety’, ‘accurate information’, and psychological benefit items were ‘convenience’, ‘relaxation’, ‘pleasure’, ‘rational consumption’, and ‘stability’. Finally, the value items were ‘self-satisfaction’, ‘abundant life’, ‘achievement’, ‘happiness’, and ‘reasonable life’.

Next, the setting criteria for web-routing shopping are ‘100’ for selective attribute cutoff, ‘40’ for selective attribute-functional benefit cutoff, ‘25’ for functional benefit-psychological benefit cutoff, and ‘25’ for psychological benefit-value cutoff. Through these criteria, it was found that the attribute items that

webrooming shoppers considered important were ‘price conformity’, ‘product information’, ‘product variety’, ‘AS’, ‘shopping atmosphere’, and seller service’. Functional benefit items were ‘free purchase’, ‘economic profit’, ‘expression opinion’, ‘safety’, ‘accurate information’, and psychological benefit items were ‘convenience’, ‘relaxation’, ‘rational consumption’, and ‘stability’. Finally, the value items were ‘self-satisfaction’, ‘abundant life’, ‘happiness’, and ‘reasonable life’.

Based on the above analysis results, the HVM of crossover shoppers can be expressed as shown in Figure 1 and Figure 2. The larger the circle size of the HVM, the more frequently mentioned ladder to the investigator, and the thicker the line connecting the circle and the circle, the stronger the connection relationship [14]. In the case of showrooming shopping, HVM is strongly divided into three value systems. The value chain that occupies the center of the entire HVM is a chain that pursues ‘self-satisfaction’, ‘happiness’, and ‘reasonable life’. Specifically, [price conformity(A)-economic profit(FB)-rational consumption(PB)-reasonable life(V)], [price conformity(A)-free purchase(FB)-convenience(PB)-self-satisfaction (V)] and [delivery service(A)-communication(FB)-convenience(PB)-self-satisfaction(V)]. In the case of showrooming shopping, HVM is strongly divided into two value systems. The value chain that occupies the center of the entire HVM is a chain that pursues ‘self-satisfaction’ and ‘reasonable life’. Specifically, [Price fit (A) - Economic benefit (FB) - Rational consumption (PB) - Reasonable life (V)] and [Product information (A) - Economic benefit (FB) - Rational consumption (PB) - Reasonable life (V)].

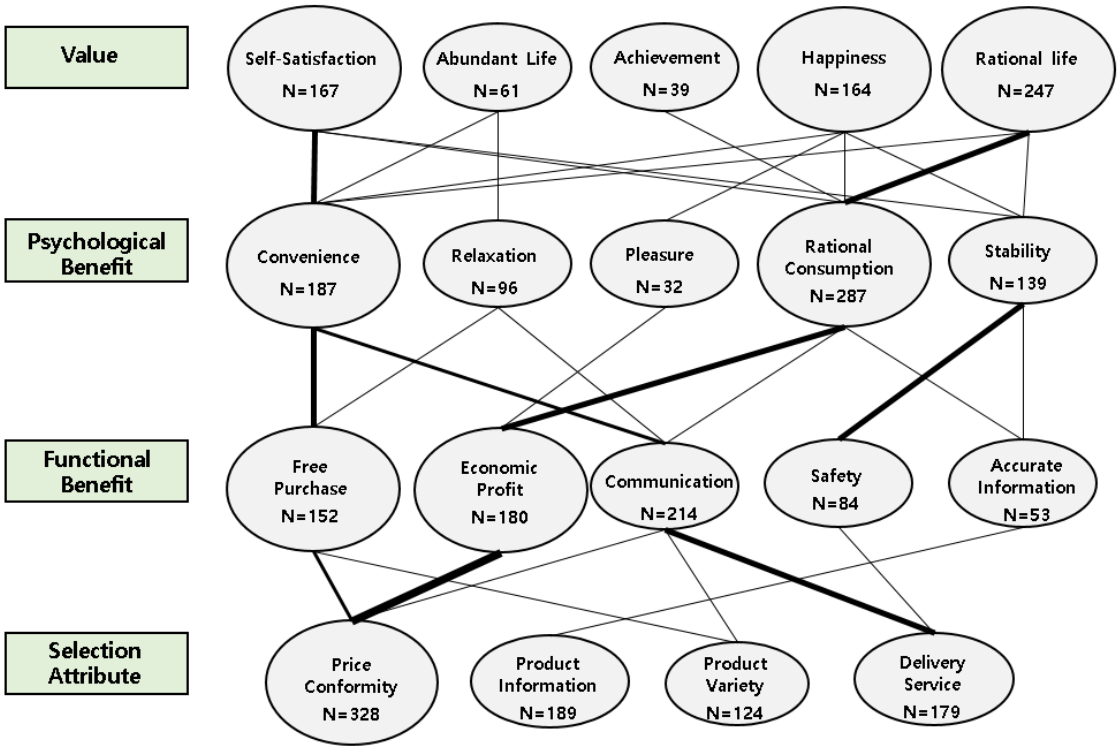

Figure 1. Showrooming shopping of HVM

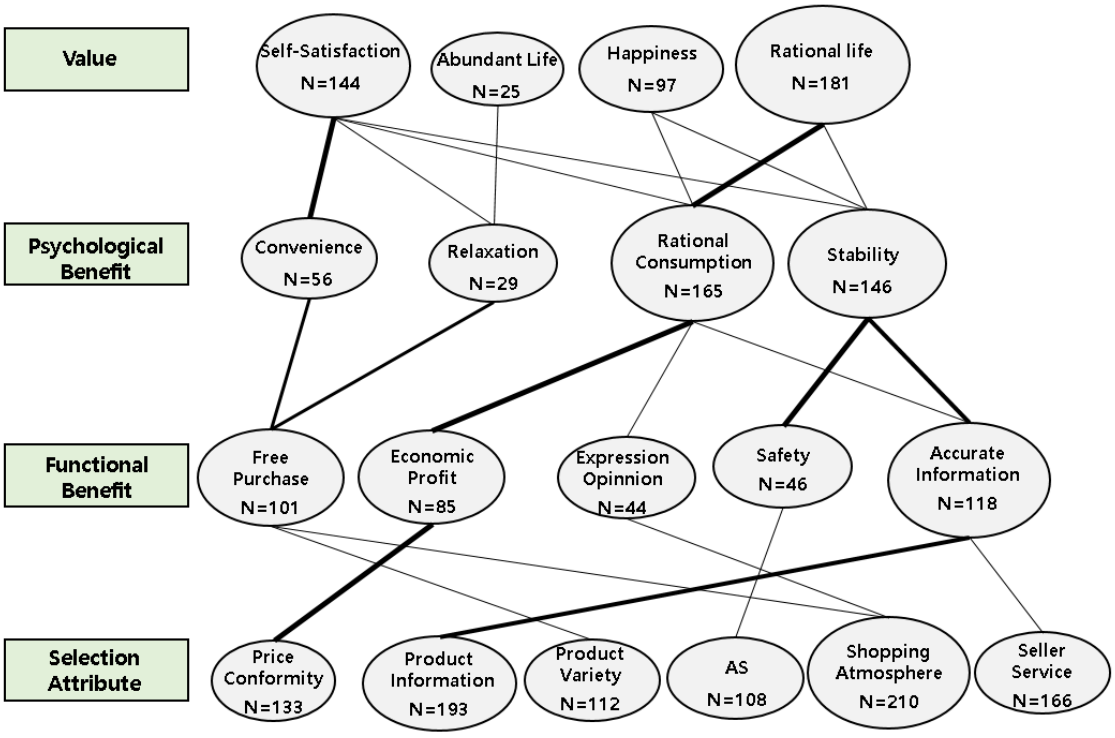

Figure 2. Webrooming shopping of HVM

4. Conclusion

The crossover shopping behavior is the collection of product information on the online channel, the actual purchase behavior is the webrooming shopping behavior on the offline channel, and the opposite is the offline channel, and the actual purchase behavior is the showrooming shopping behavior on the online channel. Therefore, this study tried to analyze the value system through a qualitative research method on crossover shopping behavior targeting sportswear brand consumers.

For this purpose, a soft laddering study was conducted using in-depth one-on-one interviews with 10 sportswear brand consumers. APT laddering was conducted on 263 people for each of the 8 selection attributes, 8 functional benefits, 7 psychological benefits, and 6 values of showrooming and webrooming shopping behavior confirmed through this soft laddering survey. Through these two laddering surveys and analyses, commonalities and differences were found in the selection attributes of showrooming and webrooming shopping.

First, the common features are ‘price conformity’, ‘product information’, ‘reputation of shopping channel’, ‘product variety’, and ‘after service’. For the difference, ‘prompt/real-time communication channel’, ‘prompt/accurate delivery service’, and ‘payment stability’ were analyzed as important selection attributes in showrooming. In webrooming, ‘location/traffic convenience’, ‘shopping atmosphere’, and ‘seller service’ were analyzed as important selection attributes. This difference in selection attributes is judged to be due to the specificity of the online / offline channels actually purchased according to the crossover pattern.

The HVM of webrooming and showrooming was created through the investigation of two laddering techniques. The connection relationship leading to price conformity-economic profit-rational consumption-rational life was found to be an important connection in both showrooming and webrooming shopping. This

suggests that the price aspect is the most important factor for consumers in sportswear brand shopping regardless of the channel.

Differently, in showrooming shopping, 'prompt/accurate delivery service' was investigated as an important selection attribute. Through this, it was possible to feel 'communication' and 'convenience', and to understand that it could increase 'self-satisfaction' for shopping. Therefore, the establishment of such a delivery system and provision of services is expected to bring a corporate advantage in the sportswear brand market. In addition, the importance of information was emphasized in webrooming shopping. It has been shown that product information is linked to accurate information, and through this, psychological benefits for stability are provided to shoppers. Therefore, it is judged that operating a system that can provide accurate information to webrooming shoppers will bring a corporate advantage in the sportswear brand market.

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References

[1] H. J. Kim, "Sportswear market running fast on them who hit the goal," etoday, 4, 19, 2022. Retry 10, 22, 2022.
[2] H. S. Choi, and S. B. Yang, "An empirical study on influencing factors of switching intention from online shopping to webrooming," Journal of Intelligence and Information Systems, Vol 22, No 1, 19-41. 2016. DOI : 10.13088/jiis.2016.22.1.019
[3] H. G. Hwang, and S. D. Cho, "The effects of risky-taking tendency and self-regulatory focus traits on show-rooming," Journal of Marketing Studies, Vol 25, No 4, 77-90, 017. DOI :10.21191/jms.25.4.05
[4] S. G. Jung, and K. C. Cha, "The relationship among show-rooming usage attributes, attitudes and continuance show-rooming intention of single-person household," Korean Journal of Marketing, Vol 35, No 3, 69-89, 2020. DOI : 10.15830/kjm.2020.35.3.69
[5] D. Sevitt, and A. Samuel, " How pinterest puts people in stores," Harvard Business Review, Vol 91, NO 7/8, 26-27, 2013.
[6] J. M. Phillips, and T. J. Reynolds, "A hard look at hard laddering: A comparison of studies examining the hierarchical structure of means-end theory," Qualitative Market Research, Vol 12, NO 1, 83-99, 2009.
[7] F. T. Ter Hofstede, A. Audenaert, J. B. E. M. Steenkamp, and M. Wedel, "An investigation into the association pattern technique as a qualitative approach to measuring means-end chains," International Journal of Research in Marketing, Vol 15, NO 1, 37-50, 1988.
[8] V. Kumer, D. A. Aaker, and G. S. Day, "Essentials of marketing research," NY: John Wiley & Sons, 2002.
[9] E. J. Bang, and S. T. Kim, "A study on the value system of social media usage by Korean journalists - focusing on the results of laddering method," Korean Journal of Communication & Information, Vol 67, No 3, 209-240. 2014.
[10] M. S. Lee, M. K. Park, and H. J. Lee, "Factors influencing choice of private institute for prospective physical education major students," Journal of Sport and Leisure Studies, Vol 33, No 1, 577-588, 2008. DOI : 10.51979/KSSLS.2008.08.33.577
[11] J. Gutman, "A means-end chain model based on consumer categorization processes," Journal of Marketing, Vol 46, NO, 2, 60-72, 1982.
[12] H. C. Han, H. J. Yoo, and Y. H. Choi, "A study on the terminal value of skier by using hard laddering of means-end chain theory," Journal of Hospitality and Tourism Studies, Vol 11, No 2, 104-118, 2009..
[13] Y. H. Lee, G. I. Song, S. H. Lee, E. K. Kim, and I. H. Chung, "A research of the cognitive structure of newspaper readers by political orientations: Analyses based on the theory of means-ends chain and HVM(Hierarchical Value Map)," Journal of Communication Science, Vol 11, No 1, 290-329. 2011.
[14] S. W. Bae, "Factors affecting skiing destination choices," Korean journal of physical education, Vol 48, No 2, 297-307, 2009.