

THE RELATIONSHIP BETWEEN CURATION CHARACTERISTICS, MOBILE FAMILIARITY AND CONSUMER MOROOMING BEHAVIOR

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ABSTRACT. *The purpose of this study is to examine the purchasing behavior of consumers using O2O channels, which are derived from the diversification phenomenon of consumer purchase channels, and examine the factors that influence the purchase intention of mobile devices. Especially, we are confined to the characteristics of curation services that are spreading around mobile devices, and we want to demonstrate how these services affect mobile familiarity, morooming attitude, and m-shopping intention. In order to achieve the purpose of the study, we conducted the feasibility and path analysis and the correlation analysis. As a result, the price advantage characteristics based on the cost-effectiveness influenced the morooming attitude and the morooming attitude played a mediating role between the price advantage characteristics and the m-shopping intention. On the other hand, the curation characteristics of usability advantage have a significant influence on mobile familiarity and m-shopping intention. Mobile familiarity and morooming attitude play an intermediary role between the usability advantage and the m-shopping intention. The results of this study suggest that the consumer factors that should be considered according to the characteristics of curation service are different for mobile curation operators and distributors.*

Keywords: Curation characteristics, Price advantage, Usability advantage, Mobile familiarity, Morooming attitude, M-shopping intention

1. **Introduction.** The development of information technology has led to the realization of a multi-channel strategy that allows retailers to timely respond to consumers' needs [6]. The convenience of purchasing channels provided by retailers provides customers with an online and offline O2O (online to offline or offline to online) experience. In addition, it has broken boundaries of the channel so that it can receive the same purchasing experience or value from any channel. In other words, it can be seen that the modern consumer purchasing environment can be changed from a single channel to a multi-channel at a certain point of time and a different channel can be accessed at the same time. This diversification of the purchase channel leads to a change in the power on the purchase channel, and the channel leader has changed from manufacturers to distributors and from distributors to smart consumers. This change in the purchasing environment, eventually, has resulted in the emergence of platform operators with information on goods and services. In the past, it meant to attract customers online to support offline commerce, but currently, it is common to see both online to offline connections or offline to online connections as the concept of O2O. Recently, many consumers are showing a new shopping behavior called multi-channel shopping due to the use of mobile devices. After appearance of online shopping, showrooming in the form of multi-channel shopping had been once popular in which consumers confirm merchandise first in the offline store before purchasing the goods in the online store. However, due to the omni-channel strategy, derived

by explosive use of smart devices such as smartphones, tablet PCs, and smart watches, morooming is remarkably increasing recently. The most remarkable characteristics of the morooming phenomenon through mobile shopping is the price searching and comparing function. Therefore, even if customers experience a product at a store, purchasing behavior could be complete through the most beneficial channel on the consumer's side, not through the official site operated by the store or the company. However, despite of the increasing number of cross-shoppers, there is a lack of research on this point. Therefore, this study is to examine the shopping behaviors of cross-shoppers or O2O shoppers, which are referred as showrooming and morooming. In particular, the purpose of this study is to investigate the factors affecting morooming behaviors of consumers who experienced curation on mobile devices.

2. Theoretical Background and Hypotheses Development.

2.1. Curation service as platform business. A platform business model refers to a business model that generates value and seeks profits by attracting two groups of producers and buyers into their platforms, rather than producing goods directly [1]. The concept of the platform had originally meant a public space in a physical structure. Therefore, it was constrained by the limit of the product or service provider and the capacity. However, the term is commonly used as a space to create new value by exchanging over the limit of time and space [5]. According to Hagiu [1], today's platform market can be broadly divided into two-sided and multi-sided markets. The two-sided market is a way for platform operators to connect two groups (users and developers) to mediate transactions. The multi-faceted market refers to the type of platform on which three or more participants (user-developer-producer) are connected through Internet service.

2.2. Mobile curation characteristics: price advantage and usability advantage. A new business structure called 'Curation Service' has emerged in big data environment where a lot of such information is generated by the consumers. Curation services are services that provide consumers with the information they want much faster and more accurately [11].

According to Horng [5], theories on human behavior, whether it is in the study field of psychology, pedagogy, marketing, management, or almost in any field of study, are based on the theory of reasoned action (TRA) or theory of planned behaviors (TPB), and that human behavior is influenced by the motivations and personal characteristics that cause the specific behavior. On the other hand, according to the study of Yeom [7], the results have shown that as the economic recession in the domestic economy has led the consumers to the rational consumption trend, the prominence of online shopping malls and the economic benefits of omni channels can create attitudes of reference groups in online shopping environment and positively affect the behavioral intentions. In addition, in the web2.0 era, subscription services are the main form of curation services and the perception of such curation services depends on the degree of convenience, ease of use, added value, usage frequency, perceived fairness, interaction intensity and so on [5,8].

The results of previous studies have shown that the main factors that affect purchasing behavior through consumers' O2O channels are 'price advantage' and 'usability advantage' [5,7-9].

2.3. Mobile familiarity, morooming attitude, m-shopping intention. The perceived economic value in O2O channel and the familiarity of mobile have a positive effect on consumers' mobile buying behaviors, and these factors induce consumers to shop in cross shopper or omni shopper that cross the complex shopping channel [7,9,10]. Attitude refers to a belief that the consumer will achieve the desired result by carrying out the behavior and it also refers to the degree to which the behavioral result is desirable to

him/her. Therefore, if a result is expected to be positive when performing a specific action, the evaluation of the result will increase and they form a positive attitude toward the behavior accordingly [7]. In addition, according to TRA and TPB, attitude is considered as a representative influence variable of behavior intention, and this influence relationship has already been proved in many studies of consumer behavior [2,9,10,12,13].

2.4. Hypotheses development. Therefore, the results of previous studies have suggested the hypotheses have been developed for this study. In the following Figure 1, each construct in the model is discussed, as well as the development of the research hypotheses.

H1-1: Price Advantage will have a positive effect on mobile familiarity.

H1-2: Usability Advantage will have a positive effect on mobile familiarity.

H2-1: Price Advantage will have a positive effect on morooming attitude.

H2-2: Usability Advantage will have a positive effect on morooming attitude.

H3-1: Price Advantage will have a positive effect on m-shopping intention.

H3-2: Usability Advantage will have a positive effect on m-shopping intention.

H4-1: Mobile familiarity will have a positive effect on morooming attitude.

H4-2: Mobile familiarity will have a positive effect on m-shopping intention.

H5: Morooming attitude will have a positive effect on m-shopping intention.

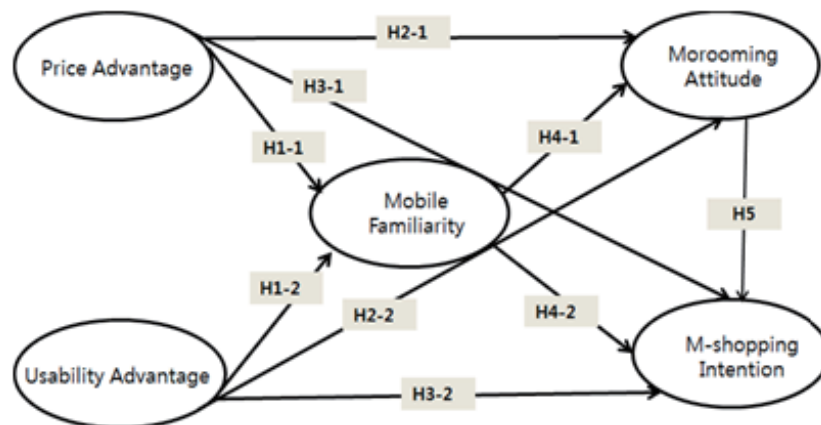


FIGURE 1. The research model and hypotheses

3. Research Methodology.

Data Collection and Sample. This survey was conducted from Sep. 30th of 2017 to Oct. 10th of the year. Respondents were surveyed by both online and offline surveys at the same time as consumers who have purchased products using smartphones or mobile surf and search users. A total of 210 questionnaires were collected, and 202 were used for the analysis after eliminating 8 questionnaires with irrelevant data and missing values. SPSS 22.0 and Amos 18.0 were used as the analysis tools. The respondents' characteristics of the sample are shown in Table 1. According to the characteristics of the sample, 44% of them were males with 56% of females showing 12% higher than males. In the age group, 20's were the most (62.5%), and other groups except 50-60's were evenly around 15%. In the occupation group, students were the highest at 50%, followed by office workers (32.2%). The highest rate of educational level was college graduates (53.4%), and the highest rate of average spending amount of products purchased through mobile device was KRW 200,000 to less than KRW 400,000 (27.4%).

The constructs in the study were measured using multi-item scales mostly adapted from the existing literature. All constructs were measured using five-point Likert scales (1 = strongly disagree, 5 = strongly agree). The survey questions are presented in Table 2.

TABLE 1. Respondents' characteristics

Division	Item	Frequency (Persons)	Rate (%)
Gender	Male	92	44.2
	Female	116	55.8
Age	10's	2	1.0
	20's	130	62.5
	30's	38	18.3
	40's	34	16.3
	50's	3	1.4
	Over 60's	1	0.5
Occupation (Job)	Students	105	50.5
	Office workers	67	32.2
	Housewife	10	4.8
	Self-employed	9	4.3
	Professional	7	3.4
	Etc	10	4.8
Educational Level	Highschool Graduates	77	37.0
	College Graduates	111	53.4
	Master, doctoral or professional degree	17	8.2
	Etc	3	1.4
The average spending amount (per month)	Less than KRW200,000	17	8.2
	KRW 200,000 to less than 400,000	57	27.4
	KRW 400,000 to less than 600,000	37	17.8
	KRW 600,000 to less than 800,000	22	10.6
	KRW 800,000 to less than 1,000,000	10	4.8
Singles	1,000,000 or over	65	31.3
	Yes	62	30.2
Total	No (together)	146	69.8
		208	100(%)

4. Results.

4.1. Reliability and validity of measures. The analysis started with conducting a CFA (confirmatory factor analysis). CFA was used AMOS 18.0 with maximum likelihood estimation to assess the measurement model. The price advantage, the usability advantage, mobile familiarity, morooming attitude, m-shopping intention constructs that were conducted confirmatory factor analysis in this study. Overall fit indices demonstrated a good fit with the data ($\chi^2 = 143.813$, d.f. = 98, $p = 0.000$, GFI = 0.921, RMR = 0.037, AGFI = 0.940, NFI = 0.939, CFI = 0.977, IFI = 0.979).

In Table 3, significant t -values of each item's estimated path coefficient on its posited latent construct and high squared multiple correlations for the individual items indicated convergent validity [3]. Also, the results of the composite reliability test showed that the values of all twelve constructs used in this study exceeded the minimum requirement (all above 0.70), indicating that multiple measurement items were highly reliable for measuring each construct [3,4]. Further, in order to test discriminant validity, Hair et al. [4] suggested that the square root of AVE (average variance extracted) should be greater than the correlation between every construct. Table 4 shows that all AVEs exceeded the minimum criteria (above 0.5) suggested by Bagozzi and Yi [3], and all AVEs are higher than squared inter-construct correlations. This result provides evidence of discriminant validity. Therefore, all constructs are treated as separate constructs in the further analysis.

TABLE 2. Measurements scales

Construct	Measurement Items	Researcher
Price Advantage	<ol style="list-style-type: none"> 1. Mobile curation service provides economic value. 2. Mobile curation service is easy, providing lower price after price comparison with other purchase channels. 3. The price of the product purchased with curation service is satisfactory. 4. I think the price I paid for the mobile curation service purchase is reasonable. 	Horng [5] Yeom [7] Ha et al. [9]
Usability Advantage	<ol style="list-style-type: none"> 1. Mobile curation service is easy for product search. 2. Mobile curation service provides convenience in purchasing time. 3. Mobile curation service provides real time information on various purchase channels. 	Horng [5] Ha et al. [9]
Mobile Familiarity	<ol style="list-style-type: none"> 1. I think I am familiar with searching with mobile devices. 2. I think I can solve problems with purchasing through mobile devices. 3. I think I am familiar with purchasing process through mobile devices. 	Ha et al. [9] Kim et al. [14]
Morooming Attitude	<ol style="list-style-type: none"> 1. I think purchasing goods through morooming is reasonable. 2. I think comparing products through morooming is good. 3. I think purchasing through morooming is wise. 4. I think purchasing through morooming appropriately suggests product alternatives that I am looking for. 	Horng [5] Yeom [7]
M-shopping Intention	<ol style="list-style-type: none"> 1. I am willing to purchase a product with mobile device. 2. I am willing to purchase via mobile in the future. 3. I am willing to repurchase through mobile device. 	Ha et al. [9]

4.2. Structural analysis and hypothesis testing. The results of hypotheses of the study are shown in Table 5 and the structural model created indicated acceptable goodness-of-fit-measures ($\chi^2 = 142.06$, d.f. = 93, p = 0.000, GFI = 0.941, AGFI = 0.970, RMSEA = 0.051, TLI = 0.968, NFI = 0.940). As a result of the hypothesis test, all the hypotheses were supported except H1-1, H2-2 and H3-1. The price advantage of mobile curation characteristics did not have a significant effect on the mobile familiarity and m-shopping intention.

However, the price advantage has a significant effect on the morooming attitude. Furthermore, the usability advantage has a significant effect on the mobile familiarity, which affects positively morooming attitude and m-shopping intention. Finally, the mediating role of smartphone familiarity among mobile curation characteristics, morooming attitude and m-shopping intention, which refers to H1-1, H4-1, H4-2 are partially accepted. The

TABLE 3. Convergent validity and reliability

Construct	Item	Estimate	Std. Estimate	t-value	p-value	Composite Reliability	AVE
Price Advantage	PA4	1.000	0.901	—		0.883	0.660
	PA3	0.821	0.715	11.405	***		
	PA2	0.826	0.696	11.067	***		
	PA1	0.807	0.655	10.088	***		
M-Shopping Intention	MPI3	1.000	0.942	—		0.971	0.920
	MPI2	0.915	0.926	24.911	***		
	MPI1	0.983	0.933	26.390	***		
Morooming Attitude	ATT1	1.000	0.831	—		0.907	0.764
	ATT2	0.882	0.786	12.787	***		
	ATT3	1.007	0.854	14.107	***		
Usability Advantage	EOP1	1.000	0.784	—		0.882	0.716
	EOP2	0.833	0.665	9.670	***		
	EOP3	1.033	0.873	12.396	***		
Mobile Familiarity	FAM2	1.000	0.636	—		0.861	0.700
	FAM3	1.240	0.764	8.695	***		
	FAM4	1.067	0.713	8.326	***		

Notes: $\chi^2 = 143.813$, d.f. = 98, $p = .000$, GFI = 0.921, RMR = 0.037, AGFI = 0.940, NFI = 0.939, IFI = 0.979, CFI = 0.977

TABLE 4. Correlations and squared of AVE

	(1)	(2)	(3)	(4)	(5)
Price Advantage (1)	0.660				
M-Shopping Intention (2)	0.518***	0.920			
Morooming Attitude (3)	0.597***	0.741***	0.764		
Usability Advantage (4)	0.678***	0.631***	0.536***	0.716	
Mobile Familiarity (5)	0.469***	0.693***	0.653***	0.591***	0.700

Notes: The square root of the average variance extracted (AVE) values are presented on the diagonal and correlations are below diagonal. *** $p < .000$

TABLE 5. Results of path analysis

Hypothesis Path	Hypothesis Direction	Std. Estimate	C.R.	p-value	Result
H1-1 Price Advantage → Mobile Familiarity	+	0.126	1.116	0.264	Rejected
H1-2 Usability Advantage → Mobile Familiarity	+	0.505	4.120	***	Supported
H2-1 Price Advantage → Morooming Attitude	+	0.372	3.808	***	Supported
H2-2 Usability Advantage → Morooming Attitude	+	0.043	0.558	0.481	Rejected
H3-1 Price Advantage → M-Shopping Intention	+	-0.048	-0.612	0.540	Rejected
H3-2 Usability Advantage → M-Shopping Intention	+	0.225	2.733	***	Supported
H4-1 Mobile Familiarity → Morooming Attitude	+	0.478	4.690	***	Supported
H4-2 Mobile Familiarity → M-Shopping Intention	+	0.464	4.907	***	Supported
H5 Morooming Attitude → M-Shopping Intention	+	0.362	4.413	***	Supported

Notes: $\chi^2 = 142.06$, d.f. = 93, $p = 0.000$, GFI = 0.941, AGFI = 0.970, RMSEA = 0.051, TLI = 0.968, NFI = 0.940

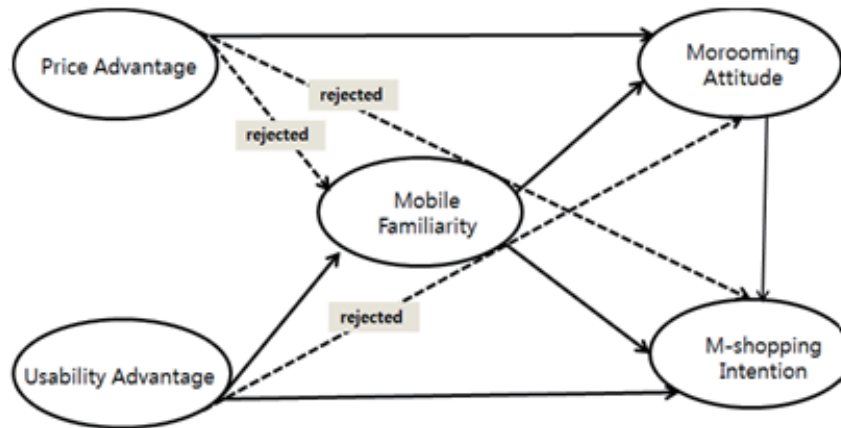


FIGURE 2. Results of path analysis

morooming attitude has proven to play a mediating role between the mobile familiarity and m-shopping intention.

5. Conclusions. One of the main purposes of the study is to find out the linkage between mobile curation characteristics, the mobile familiarity and morooming attitude on m-shopping intention. The results of this study are as follows. First, the price advantage of mobile curation characteristics has a positive effect on consumer morooming attitude and m-shopping intention. This result shows that price advantage can be a good incentive factor for consumers who enjoy morooming behavior. Second, the usability advantage of mobile curation characteristics was positively(+) on the mobile familiarity and m-shopping intention, and did not significantly affect morooming attitude.

The results indicate that unlike the price advantage curation factor, the usability advantage can have a positive effect on consumer behavior when mediating the mobile familiarity. In other words, mediating role of morooming attitude in price advantage, and the mobile familiarity in mediating usefulness. In this study, it is meaningful to find out that the mediating factors influencing m-shopping intention are different depending on the kind of curation service characteristics.

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