Antecedents to Customer Repurchase in Korean Social Commerce Service

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Abstract

Recently, with the success of Groupon in the USA using the new business model referred to as social commerce, which is a commercial transaction involving group purchases on social network service (SNS), social commerce business receives much attention. Social commerce is capable of effectively promoting additional purchasing by customers through unprecedented price discounts and limiting the number of purchasers and time allotted for purchases, and is able to achieve promotional effects over and above those of simple product promotion due to customers' voluntary word of mouth. Although social commerce is effective for short-term increase in the sales of products, there are numerous dissenting opinions on whether it can promote repurchasing by customers. In particular, social commerce in Korea focuses only on unprecedented discounted prices and does not have the marketing effect that SNS can produce over and above the sales promotion.

The objective of this study is to find the factors that influence the repurchase intention on social commerce and to analyze factors that contribute the social commerce product. For this, this study extracts repurchase intention factors and computes a repurchase probability to assess the influence of factors other than price discount on social commerce customers at the time of repurchasing. In addition, the importance of factors toward sales revenue for each of the social commerce products (e.g., restaurant/café, beauty, tour/leisure, show/exhibition, and fashion/clothes) is estimated by using the computed repurchase probabilities. The repurchase probability through the analysis can be used for development of social commerce business in Korea.

Keywords : Social network services (SNS), social commerce, repurchase intention, repurchase probability

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Ⅰ. Introduction

One of the changes that arose with the propagation of the Smartphone is the creation of social network services (SNS), whose Web sites are experiencing an exponential increase in the number of users and monthly visitors. Although the function of the early stage SNS was that of a simple tool for the maintenance of interpersonal relationships, the current trend is diversification of application areas including friendship, special interest clubs, specialized knowledge forums, and citizen journalism.

Recently, with the success of Groupon in the USA using the new business model referred to as social commerce, which is a commercial transaction involving group purchases on SNS, social commerce business receives much attention. Social commerce is capable of effectively promoting additional purchasing by customers through unprecedented price discounts and limiting the number of purchasers and time allotted for purchases, and is able to achieve promotional effects over and above those of simple product promotion due to customers' voluntary word of mouth (Leitner & Crechening, 2008). Although social commerce is effective for short-term increase in the sales of products, there are numerous dissenting opinions on whether it can promote repurchasing by customers. In particular, social commerce in Korea focuses only on unprecedented discounted prices and does not have the marketing effect that SNS can produce over and above the sales promotion.

Researches on the repurchase intention regarding a product or service through off-line commercial transactions have focused on their association with a diverse range of factors (Singh & Sirdeshmurk, 2000). Reynolds & Beatty(1999) examine whether or not customer satisfaction affects the attitude of customers after purchase and whether or not this attitude continues to affect the repurchase intention. In addition, they disclose that customer satisfaction with the sales staffs has an affirmative relationship with the purchase rate of the products of such a company. Anderson et al.(1994) proves that customer satisfaction results in outstanding oral promotional effect, and Oliver(1980) asserts that customer satisfaction affects the attitude of customers after the purchase and that such attitude continues to affect the repurchase intention. Mittal & Kamakura(2001) examine whether or not customer satisfaction with the services and other aspects when making a purchase affects not only the repurchase intention but also changes in attitude, trademark loyalty, and oral transmission effect. Cronin & Taylor(1992) assert that service quality affects customer satisfaction and such satisfaction influences repurchase intention.

Assael(1998) asserts that, in the case of products over which customers feel high levels of concern, purchasing due to trademark loyalty occurs in the order of conviction-assessment-action, and, in the case of products over which they have low levels of concern, purchasing due to inertia occurs in the order of conviction-action-assessment, at the time of repurchase. Newman & Werbel(1973) present the repurchase rate due to customer satisfaction by indicating that the possibility of repurchase by customers who experienced dissatisfaction is lower than that of satisfied customers. Gilly & Gelb(1982) illustrate that when the company takes appropriate measure in dealing with its regular customers who display discontent, the satisfaction of the customer increases, thereby elevating the repurchase intention.

Quelch & Klein(1996) explain that when customers recognize price fairness, including price discounts or the cost of delivery for the products or services offered through on-line shops, such recognition has a significant affirmative influence on customer satisfaction and reliability. Gefen(2002) mentions that inadequate real time interaction with customers obstructs potential customers from making purchases through on-line shopping, and that more extensive interaction elevates the intention to revisit the site. Chung & Lee(2003) studied the factors influencing repurchase intention in Internet shopping malls. They verified that product price, product quality, product variety, responsiveness, assurance, reliability, tangibility, empathy, perceived ease of use, site image, promotion, innovativeness and preference of credit card use have positive impact on repurchase intention while consumer risk and social interaction orientation have negative influence. Chiu et al.(2009) analyzed customers' repurchase intentions in online shopping. They find that trust, perceived ease of use, perceived usefulness and enjoyment are significant positive predictors of customers' repurchase intentions. These studies were not comprehensive and did not follow a strict research methodology. Furthermore, social commerce in Korea is still in its early stages and is largely driven by price discounts. Although this promotional method can increase sales in the short-term, consensus has not yet been reached regarding its effectiveness for encouraging repurchase behavior. As such, in the case of Korea, it may be quite difficult to determine what influences repurchase behavior, that is, whether it is driven largely by the significant price discounts or by other factors such as product and service attributes.

The objective of this study is to find the factors that influence the repurchase intention on social commerce and to analyze factors that contribute the social commerce product. For this, this study extracts repurchase intention factors and computes a repurchase probability to assess the influence of factors other than price discount on social commerce customers at the time of repurchasing. In addition, the importance of factors toward sales revenue for each of the social commerce products (e.g., restaurant/café, beauty, tour/leisure, show/exhibition, and fashion/clothes) is estimated by using the computed repurchase probabilities. The repurchase probability through the analysis can be used for development of social commerce business in Korea.

Ⅱ. Backgrounds on social commerce

Social commerce was introduced in 2005 through the Shoposphere site, which offers the shared service of Pick List of Yahoo! It began to be widely known in earnest after Groupon, an on-line discount coupon company established in 2008 in Chicago, USA, first created the group purchase-type business model of social commerce with which it has achieved success. In particular, the popularization of Smartphone and SNS has turned it into a new consumptive market. Therefore, social commerce can be defined as a format that combines e-commerce and SNS to form a new paradigm. Social commerce is a business model that can offer benefits to three parties of the transaction, namely, the regional Internet service provider, the customer, and the business entity that brokers the transaction. The regional Internet service providers can be used as channels to promote a shop with the advantage of maximizing the marketing effect at minimal expense through the viral buzz created on SNS such as Twitter or Facebook. Customers can use the services that are not being used due to the price burden or lack of information when those services' prices are at discounts of more than 50%. Social commerce providers that link the customers with the sellers achieve their profits through brokerage fees of approximately 20% ~ 50% of the transaction volume. Social commerce, although having a format similar to that of group purchase, has the added advantage of achieving a win-win situation for all the parties involved, including the customers and sellers, as its promotional effect can be maximized by utilizing SNS. It is possible because of low marketing costs, expedient propagation of information, and the ability to assess the demands of customers quickly. According to the survey by Thinkreals, the sales revenue of Groupon at the end of 2010 was US$5 million, which figure is expected to grow to US$20 million in 2011, a four-fold increase from the previous year. In the case of Korea, although the size of the overall market in 2010 was approximately US$5.6 million, the market is forecasted to undergo rapid growth by more than five-fold to US$28.30 million in 2011.

Four categories of social commerce exist, namely, the social link (basic type), social Web, group purchase, Off-line linked, and F-commerce. First, the social link is the most basic type where a widget on the online shopping site enables users to move to the social network. The social Web type permits social network functions within the social commerce sites by combining social commerce with social networking. According to a survey by Harris Interactive, 71% of the survey respondents stated that the opinions of family or friends influenced them in selecting a specific brand. Social commerce that links the existing e-commerce and SNS is receiving enormous attention because of its oral transmission effect, which is multiplied because the opinions proffered on these sites are those of acquaintances rather than those of customers that users may not know personally. The group purchase type merges with social networking by enticing customers to induce their friends to participate in group purchase through their social network; this type offers the incentive of providing discount benefits once the minimum purchase quantity prescribed for each product has been achieved. The off-line linked type connects

the off-line space with the social network by means of terminal units that enable networking. This type uses the approach of disseminating the experiences of customers at the off-line shops to their social network through mobile devices using location-based services such as Foursquare, Gowalla and Runpipe, as well as Promotion of Diesel that enables customers to access their social network on the computers provided at the sales outlet. Lastly, the F-commerce is the latest social commerce type where companies occupy a shop on the SNS. Recently, an increasing number of companies are opening shopping malls on Facebook by using shopping mall builders such as Pavement and Alvenda. As illustrated above, social commerce involving the direct sales format that actively utilizes Facebook has even given birth to the newly coined word, F-commerce.

Ⅲ. Research methods

In this section a detailed research procedure is described. The variables that affect social commerce repurchase intention is selected in previous studies and potential factors that influence the repurchase intentions are extracted through factor analysis. With extracted factors, repurchase probability is computed using logistic regression method. The importances of factors by reflecting the repurchase probability make toward revenue from each of social commerce products (e.g., restaurant/café, beauty, tour/leisure, show/exhibition and fashion/clothes) are estimated through AHP survey (Satty, 1990).

Preceding researches guided the selection of the independent variables and a dependent variable used in this study; the independent variables included discount coupon benefits (Lichtenstein et al. 1990), diversity of product (DP) (Jarvenpaa & Todd, 1997), customer satisfaction (CS) (Oliver, 1980; Westbrook & Reilly, 1983), word of mouth (WM) (Hennig-Thurau & Walsh, 2003), and intention to propagate information orally. The dependent variable is Repurchase intention (McDougall & Levesque, 1999), and Table 1 describes the variables and their definitions. Table 2 shows the sub-variables and their codes used in this study.

<Table 1> Variables and their definitions used in this study

Variables	Definitions	References
Discount coupon benefits	Grants prescribed discount benefits if the customer purchases specific products or services	Lichtenstein et al. (1990)
Diversity of product (DP)	Includes extent of diversifying range of products and services that customers wish to purchase, extent of diversity of types of products that customers can purchase, and number of items of products and services the shopping mall offers.	Jarvenpaa & Todd (1997)
Customer satisfaction(CS)	State in which the customer is aware of whether the remuneration for his or her efforts is appropriate Emotional response to the experience being provided or to the specific trademark or service purchased.	Oliver (1980), Westbrook & Reilly (1983)
Word of mouth (WM)	All unofficial communication between the customer and other people who are interested in assessment of the product(service)	Hennig-Thurau & Walsh (2003)
Repurchase intention	Extent of the desire of the customers to reuse the services they used before Possibility that the customer will repetitively use the current service provider continuously in the future	McDougall & Levesque (1999)

<Table 2> Sub-variables and their codes used in this study

Variables	Sub-variables	Codes
Discount coupon benefits	Value and usefulness of coupon	Coupon 1
	Economic value of coupon	Coupon 2
	Level of interest in coupon	Coupon 3
DP	Availability of the latest products and diverse range of product lines	Variety 1
	The desired products available	Variety 2
	Well-known brand name products available	Variety 3
	Products that are difficult to find available	Variety 4
	Shopping mall satisfactory overall	Satisfy 1
CS	Comparison of the level of expectation prior to visit with the level of satisfaction after	Satisfy 2
	Satisfactory shopping experience	Satisfy 3
	Awareness of others	Transmit 1
WM	Sharing of information	Transmit 2
	Talk about shopping experience and recommendation to acquaintances	Transmit 3

Ⅳ. Empirical studies and results

1. Factors extraction for repurchase intention and computing repurchase probability

The factor analysis begins with the distribution of 240 copies of the questionnaires to males and females in their 20's~30's who had experience of using social commerce site at least once; this was followed by the analysis of a total of 231 valid specimens. The experiment selects the independent variables for factor analysis by using the Kaiser-Meyer-Olkin (KMO) sampling adequacy and Bartlett test for the appropriateness of 13 measurement variables that influence the repurchasing of social commerce products. The KMO measure of sampling adequacy (MSA) is an index that compares the values of the observed values of correlation coefficients with the values of partial correlation coefficients. Kaiser(1974) categorized a value as marvelous if the value of KMO is larger than 0.90, meritorious if it was in the range of 0.80~0.89, middling if in the range of 0.70~0.79, mediocre if in the range of 0.60~0.69, miserable if in the range of 0.50~0.59, and unacceptable if less than 0.5. The Bartlett's test, obtained by modifying the determinant of the correlation matrix to achieve chi-square distribution, can help to determine whether the correlation matrix is an identity matrix. This test presumes that the observation data are specimen extracted from a multivariate normal population. The use of the factor model itself may require reconsideration, if one cannot dismiss the assumption that a correlation matrix of the pop-

ulation is an identity matrix. In Table 3, MSA is the relative ratio of a partial correlation coefficient in relation to the total correlation coefficient. In general, an MSA of less than 0.5 suggests that more variables may need to be included in the analysis; if greater than 0.5, the value is appropriate for factor analysis to evaluate the adequacy of the sampling. Having determined by this means to select only the variables with an MSA value of more than 0.7, the study eliminates Variety 3 (MSA, 0.50) and uses only the 12 variables. The overall MSA for the 12 variables is 0.819 and the Bartlett test value (952.588) is also statistically significant (p-value, 0.000).

<Table 3> KMO and Bartlett test for variable selection

Sub-variables	Individual MSA for 13 variables	Individual MSA for 12 variables
Coupon 1	0.794	0.829
Coupon 2	0.789	0.793
Coupon 3	0.744	0.765
Variety 1	0.787	0.790
Variety 2	0.788	0.818
Variety 3	0.503	*
Variety 4	0.875	0.873
Satisfy 1	0.839	0.828
Satisfy 2	0.825	0.834
Satisfy 3	0.865	0.865
Transmit 1	0.805	0.802
Transmit 2	0.776	0.772
Transmit 3	0.827	0.830
Overall MSA	0.809	0.819
Bartlett test(*p*-value)	998.973 (0.000)	952.588 (0.000)

* Variables eliminated by the statistical value related to the estimated value of correlation matrix

The study finds four main factors having an eigenvalue of more than 1 (See Table 4), and the four factors explain a ratio that is 65.35% of the total distribution of the specimen.

<Table 4> Eigenvalue of components and their statistics for factors extraction

Components	Eigenvalues	Proportions (%)	Cumulative Proportions (%)
1	4.4196	0.3683	0.3683
2	1.2399	0.1033	0.4716
3	1.1190	0.0932	0.5649
4	1.0638	0.0886	0.6535
5	0.8647	0.0721	0.7256
6	0.7463	0.0622	0.7878
7	0.6389	0.0532	0.8410
8	0.5268	0.0439	0.8849
9	0.4466	0.0372	0.9221
10	0.4096	0.0341	0.9563
11	0.3156	0.0263	0.9826
12	0.2092	0.0174	1

This study uses the Varimax method as the factor rotation technique, and Table 5 gives the resulting factor pattern matrix, which is a matrix that illustrates factor loading after rotation. Factor 1 comprises the variables Satisfy 1, Satisfy 2, and Satisfy 3 (i.e., CS); Factor 2 comprises the variables Transmit 1, Transmit 2, and Transmit 3 (i.e., WM); Factor 3 comprises the variables Variety 1, Variety 2, and Variety 4 (i.e., DP); and Factor 4 comprises the variables Coupon 1, Coupon 2, and Coupon 3. These factors are potential factors that influence the repurchase intention of social commerce customer.

<Table 5> Rotated factor pattern by Varimax method

Sub-variables	Factor 1	Factor 2	Factor 3	Factor 4
Satisfy 2	0.8295	0.1460	0.1553	0.0247
Satisfy 1	0.8242	0.0693	0.0695	0.1685
Satisfy 3	0.6440	0.4335	0.1346	-0.0104
Transmit 3	-0.0621	0.7487	0.1094	0.0745
Transmit 2	0.4255	0.7399	0.1414	0.1077
Transmit 1	0.3443	0.6479	0.3160	0.1560
Variety 1	0.0855	0.2167	0.7671	-0.1075
Variety 2	0.1152	0.0644	0.7462	0.2463
Variety 4	0.5188	0.1117	0.5384	0.2537
Coupon 3	-0.1065	0.0972	0.2259	0.7881
Coupon 2	0.4317	0.0607	0.0470	0.6101
Coupon 1	0.2888	0.4521	-0.1744	0.5133

Logistic regression analysis examines the relationship between customers' willingness to repurchase a product (i.e., dependent variable) and the factors influencing them (i.e., independent variables), and the stepwise method is used for variable selection. Table 6 illustrates the statistical significance test results using the regression coefficient of the logistic regression model. The regression coefficient of a constant item is 0.17 with a Wald test statistic value of 1.46. The p-value is 0.23 with the level of significance at 0.1, thereby leading to the conclusion that this value does not significantly influence the probability of repurchasing products without a discount service. The regression coefficient of WM factor is 0.51 with a Wald test statistic value of 12.17. The p-value is 0.00 with the level of significance at 0.1. The regression coefficient of DP factor is 0.39 with a Wald test statistic value of 6.68. The p-value is 0.01, making this value statistically significant. The regression coefficient of CS factor is 0.67 with a Wald test statistic value of 20.42. The p-value is 0.00, making this value statistically significant. Therefore, here is the estimate for the logistic regression equation:

Probability of repurchasing (the products without discount service) = 0.51 (WM factor) + 0.39 (DP factor) + 0.67 (CS factor)

<Table 6> The statistical significance test results using the regression coefficient of Logistic regression model

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0.17	0.14	1.46	0.23
WM factor	0.51	0.15	12.17	0.00
DP factor	0.39	0.15	6.68	0.01
CS factor	0.67	0.15	20.42	0.00

The odds ratios, used to measure the effect of individual in-

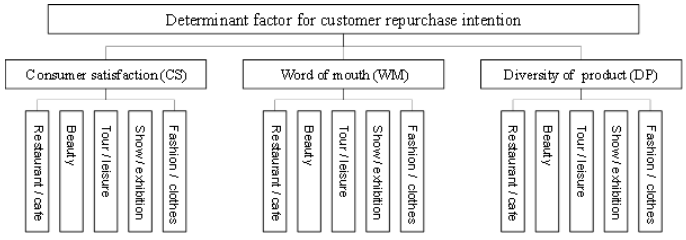
dependent variables on the logistic response function, permit verification that an increase of one unit of CS factor, which illustrates the level of satisfaction. It will increase the effect of a dependent variable by 1.67 times; an increase of one unit of WM factor will increase the effect of dependent variable by 1.47 times. Moreover, an increase of one unit of DP factor will increase the effect of a dependent variable by 1.94 times (see Table 7). These findings signify that improving the level of WM activities, DP, and the level of CS by one unit will increase the probability that the customer will make repurchase by 1.67 times, 1.47 times, and 1.94 times, respectively, in comparison to the probability of their not making a repurchase.

<Table 7> Odds ratios for repurchase intention factors

Effect	Unit	Odds ratios	95% Wald Confidence Limits	
WM factor	1.00	1.66	1.25	2.23
DP factor	1.00	1.47	0.01	1.97
CS factor	1.00	1.94	1.46	2.60

2. Estimation of the importance of factors toward sales revenue of social commerce products

This study analyzes the importance made by the factors toward the sales revenue of social commerce products using AHP analysis. For this, as the crieria, CS, WM, and DP factors extracted in factor analysis are used, and the sub-criteria are restaurant/cafe, show/exhibition, beauty, tour/leisure, and fashion/clothes that are the key products in social commerce. This study excludes the "discount coupon benefit". Kumar et al. (2004) did not use the discount coupon or unprecedented price discount as a variable since discounts not only have the tendency of elevating the acknowledged risks of the products and services but may also result in lowering the evaluation of the quality of the discounted products and services. Figure 1 shows the AHP structure.



<Figure 1> The hierarchy of the proposed AHP model

This study conducts a second questionnaire survey to a specialist group in the distribution industry in order to compute the weight of each product that influences decision making about a repurchase, having computed the repurchase probability through factor analysis. The respondents in the survey comprised 40 specialists in the distribution industry with 60% of the subjects in their 40's. Although social commerce is used mostly by those in their 20's ~ 30's, the results of the AHP response survey revealed that more than 65% of the specialists in their 30's ~ 40's also use social commerce.

This study computes the weight values of criteria and sub-criteria for repurchase by carrying out pairwise comparison using Expert Choice 2000 software. Since an overall consistency ratio is 0.02, thus satisfying the requisite that the ratio be less than 0.1, the results of this survey appear to be sufficiently credible instead (Satty, 2000). Table 8 illustrates the results of the weight values of the criteria for decision making about repurchase, with CS achieving the highest weight value (0.53), followed by DP (0.25) and WM (0.22).

<Table 8> The weight value for the three criteria (DC, CS, and WM factor) and the consistency ratio

Criteria	DP factor	CS factor	WM factor	Global weight	Consistency ratio
DC factor	1.0	1.8783	1.0410	0.25	0.02
CS factor	-	1.0	2.7954	0.53	
WM factor	-	-	1.0	0.22	

In addition, Table 9 provides the weight values for the sub-criteria. For example, tour/leisure (0.08) is the most important criterion for DP, restaurant/cafe (0.14) for CS and restaurant/cafe (0.09) for WM. This illustrates that although each criterion affects the products commensurately, the criterion that most substantially influences the decision-making about the repurchase when summated is that of customer satisfaction. In terms of products, the most important criterion is restaurant/cafe products, followed by tour/leisure, fashion/clothes, show/exhibition, and beauty.

<Table 9> Weight values for each sub-criterion in the three factors

(a) DP

Sub-criteria	Restaurant/cafe	Beauty	Tour/leisure	Show/exhibition	Fashion/clothes	Weight
Restaurant/cafe	1.0	2.4630	1.3759	1.2117	1.5953	0.05
Beauty	-	1.0	3.2284	2.7957	3.5511	0.02
Tour/leisure		-	1.0	1.3888	1.9144	0.08
Show/exhibition			-	1.0	1.2381	0.06
Fashion/clothes				-	1.0	0.06

(b) CS

Sub-criteria	Restaurant/cafe	Beauty	Tour/leisure	Show/exhibition	Fashion/clothes	Weight
Restaurant/cafe	1.0	1.6935	1.4980	1.5009	1.4663	0.14
Beauty	-	1.0	1.2459	1.3819	1.5043	0.07
Tour/leisure		-	1.0	1.7967	1.5043	0.12
Show/exhibition			-	1.0	1.2149	0.09
Fashion/clothes				-	1.0	0.10

(c) WM

Sub-criteria	Restaurant/cafe	Beauty	Tour/leisure	Show/exhibition	Fashion/clothes	Weight
Restaurant/cafe	1.0	3.0667	3.2759	1.9181	2.3592	0.09
Beauty	-	1.0	1.4539	1.3475	1.6264	0.04
Tour/leisure		-	1.0	1.3393	1.2891	0.03
Show/exhibition			-	1.0	1.0189	0.03
Fashion/clothes				-	1.0	0.03

The odds ratios (See Table 7) and the weight values estimate the importance of factors toward the sales revenue of each product. As the odds ratio—the measurement of the effect of an individual independent variable in the logistic response function—increases by one unit for the WM, DP, and CS, the probability of customers' making repurchases increases by 1.67 times, 1.47 times, and 1.94 times, respectively, in comparison to the probability of their not making a purchase. Using the probability, one can estimate the importance of factors toward sales revenue of each product as follows:

Importance of factors toward product sales revenue = Repurchase probability × Weight for each product

Table 10 describes the importance of factors, which the weight for each product and the odds ratios of WM, DP, and CS computes the importance. For example, the criterion determined to be the most important at the time of a customer's decision making about repurchase is CS. Accordingly, applying the weight for each product yields the each importance toward product sales revenue, that is, 53.27% for restaurant/cafe; 43.55% for tour/leisure; and 35.96% for other products. These results signify that if a social commerce operator were to make concentrated investment in the CS aspect of the business, the operator would be able to anticipate greater sales revenue in comparison to improvements made to the DP or WM aspect of the business.

<Table 10> Importance toward product sales revenue using repurchase probability and weight values of each product

Sub-criteria	Restaurant/cafe	Beauty	Tour/leisure	Show/exhibition	Fashion/clothes	Weight
Restaurant/cafe	1.0	2.4630	1.3759	1.2117	1.5953	0.05
Beauty	-	1.0	3.2284	2.7957	3.5511	0.02
Tour/leisure		-	1.0	1.3888	1.9144	0.08
Show/exhibition			-	1.0	1.2381	0.06
Fashion/clothes				-	1.0	0.06

* AHP weight value for each product

Ⅴ. Conclusions

The aim of this study is finding the potential factors that influence the repurchase intention of customers who use social commerce and analyzes the importance of the factors in each of social commerce products. To this end, the 13 variables that affect social commerce repurchase intention is selected in previous studies and potential factors that influence the repurchase intentions are extracted through factor analysis. factor analysis on the selected 12 measurement variables led to the extraction of four factors (level of satisfaction after having used the products or company, discount coupon benefits, product diversity, and word of mouth). Using logistic regression method, repurchase probability is computed with extracted factors. Logistic regression analysis illustrates that the repurchase intention regarding WM, DP, and CS after having used the alliance products or company significantly affect repurchase intention. This study also verifies that if the company increases WM, DP, and CS for the customers who have experience of purchasing products through social commerce by one unit each at the time of repurchase. Then the probability of customers' making repurchases in comparison to the probability of their not making a purchase increases by 1.67 times for WM, 1.47 times for DP, and 1.94 times for CS. The importances of factors by reflecting the repurchase probability make toward revenue from each of social commerce products (e.g., restaurant/café, beauty, tour/leisure, show/exhibition and fashion/clothes) are estimated through AHP survey. Additionally, using AHP survey, application of the repurchase probability to estimate the factors' importance toward the sales revenue of social commerce products confirms that the importance to the restaurant/cafe products increased repurchases by 46.43%, that to tour/leisure products by 37.96%, and that to show/exhibition products by 31.35%. The results through the this study can be used for development of social commerce business in Korea.

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References

Assael, H.(1998), *Consumer Behavior and Marketing Action,* Boston, Mass: KENT Publishing Company.

Chiu, Chao-min, Chang, Chen-chi, Cheng, Hsiang-lan & Fang, Yu-hui.(2009), "Determinants of Customer Repurchase Intention in Online Shopping", *Online information review,* 33(4), 761-784.

Chung, In-Keun & Lee, Myung-Moo(2003), "A Study of Influencing Factors for Repurchase Intention in Internet Shopping Malls", Proceedings of the International Parallel and Distributed Processing Symposium, IEEE Computer Society.

Cronin, J. Joseph & Taylor, Steven A.(1992), "Measuring Service Quality: A Reexamination and Extension", *The Journal of Marketing,* 56(3), 55-68.

Anderson, Eugene W., Fornell, Claes & Lehman, Donald R.(1994), "Customer Satisfaction, Market Share and Profitability: Findings from Sweden", *Journal of Marketing,* 58, 53-66.

Gefen, David(2002), "Customer Loyalty in E-commerce", Journal of the Association for Information Systems, 3, 27-51.

Gilly, Mary C. & Gelb, Betsy D.(1982), "Post-purchase Customer Processes and the Complaining Customer", *Journal of Customer Research,* 9, 323-328.

Hennig-Thurau, Thorsten & Walsh, Gianfranco(2003), "Electronic Word of Mouth: Motives for and Consequences of Reading Customer Articulations on the Internet", International *Journal of Electronic Commerce,* 8(2), 51-74.

Jarvenpaa, Sirrka L. & Todd, Peter A.(1997), "Customer Reaction to Electronic Shopping on the WorldWideWeb", *International Journal of Electronic Commerce,* 1(2), 59-88.

Kaiser, Henry F.(1974), "An Index of Factorial Simplicity", *Psychometrika,* 39(1), 31-36.

Kumar, V., Madan, Vidhas, Srinivasan & Srini S.(1998), "Price Discounts or Coupon Promotions: does it matter?", *Journal of Business Research,* 57, 933-941.

Leitner, Peter & Crechenig, Thomas.(2008), "Collaborative Shopping Networks: Sharing the Wisdom of Crowds in E-commerce Environments", in Proceedings of 21st Bled E-conference 2008, Bled, Slovenia, 321-335.

Lichtenstein, Donald R., Netemeyer, Richard G. & Burton, Scot.(1990), "Distinguishing Coupon Proneness from Value Consciousness: An Acquisition-transaction Utility Theory Perspective", *The Journal of Marketing,* 54(3), 54-67.

McDougall, Gordon H.G. & Levesque, Terrence J.(1999), "Waiting for Service: The Effectiveness of Recovery Strategies", *International Journal of Contemporary Hospitality Management,* 11(1), 6-15.

Mittal, Vikas & Kamakura, Wagner A.(2001), "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics", *Journal of Marketing Research,* 38(1), 131-142.

Newman, Joseph W. & Werbel, Richard A.(1973), "Multivariate Analysis of Brand Loyalty for Major Household Appliances", *Journal of Marketing Research,* 10(4), 404-409.

Oliver, Richard L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research,* 17, 460-469.

Quelch, John A. & Klein, Lisa R.(1996), "The Internet and International Marketing", *Sloan Management Review,* 37(3), 60–75.

Reynolds, Kristy E. & Beatty, Sharon E.(1999), "Customer Benefits and Company Consequences of Customer–salesperson Relationships in Retailing", *Journal of Retailing,* 75(1), 11-32.

Satty, Thomas L.(1990), "How to Make a Decision: The Analytic Hierarchy Process", *European Journal of Operational Research,* 48(1), 9-26.

Satty, Thomas L.(2000), "On the Relativity of Relative Measures: Accommodating both Rank Preservation and Rank Reversals in the AHP", *European Journal of Operational Research,* 121(1), 205-212.

Singh, Jagdip & Sirdeshmurk, Deepak.(2000), "Agency and Trust Mechanisms in Consumer Satisfaction and Loyalty Judgements", *Journal of the Academy of Marketing Science,* 28(1), 150-167.

Westbook, Robert A. & Reilly, Michael D.(1983), "Value-percept Disparity: An Alternative to the Disconfirmation of Expectations Theory of Customer Satisfaction", *Advances in Customer Research,* 10, 256-261.