

How it effects the Influence of Customer Satisfaction and Customer Loyalty of Internet-based TV Home Shopping Service Quality

Tae-Hwan Kim, Seung-Gyun Yoo

Abstract: *The purpose of this study is, to find out how it effects the consumers' purchase satisfaction according to the quality of broadcasting service of TV home shopping and at the same time to understand whether the image of the home shopping channels that the customers have causes any control effect. To do this, a questionnaire was designed through a preliminary survey and based on the questionnaire, 440 samples were extracted by conducting in the form of online survey with the help of a professional company. The extracted sample was verified the content validity and composition validity by analyzing the factor analysis and reliability analysis through SPSS. In addition, to test the hypotheses, a multiple regression analysis and a hierarchical regression analysis were performed. It is necessary to plan a strategy to improve the image of the customers' service sector through the provision of trust-based services in order to increase customer loyalty based on the achievement of the control variable of this paper, and in case the safety-related services is provided, an effective customer loyalty can be increased by establishing measures to enhance the customer's qualitative evaluation. In order to increase customer loyalty based on the results of the analysis of moderating variables in this study, a strategy to improve the customer's image about the service sector through providing services focused on trust should be established, and in providing services related to safety, it is judged that effective promotion of customer loyalty will be achieved by establishing a plan to increase the customer's qualitative evaluation.*

Keywords : *TV home shopping, Broadcasting sales service, Purchase satisfaction, Customer loyalty, Household items, Kitchen utensils*

I. INTRODUCTION

Recently, the TV home shopping market has approved three home shopping channels such as Hyundai Home Shopping, Woori Home Shopping (currently Lotte Home Shopping), and Agriculture and Fishery Home Shopping (currently NS Shopping) in 2001 in addition to the existing two Home Shopping Channels (currently CJ O-Shopping and GS Home Shopping). Since then, as the two new entrants were approved newly, Home & Shopping in 2012 and Public Home Shopping in 2014, it is becoming a more competitive

market.

With the emergence of diverse retailers in the retail industry and the wider range of retail activities for consumers, the competition for services is becoming more intense than competition for prices. Especially, in the case of life and kitchen utensils, not only small and medium enterprises in Korea but also many overseas companies are steadily developing new products based on innovative idea and product power, and the overseas companies are speeding up to enter the Korea market with gaining global competitiveness.

In the case of representative product categories other than life and kitchen utensils such as fashion, food, or leisure goods, the diversity and quality of products are relatively not various. Therefore, since it is necessary to secure competitiveness through differentiation in terms of brand differentiation, price, and composition of products, it can be said that there is a limit to secure differentiation of sales service by utilizing broadcasting.

In this study, based on the necessity of the study presented above, I tried to derive the evaluation factors of the TV home shopping service quality about the product sales in the TV home shopping market, which is becoming more competitive as the market saturation theory is raised. Based on this analysis, I analyzed how much the customers satisfied with purchasing according to the quality of the broadcasting sales service, and also the customers' loyalty to TV home shopping broadcasting sales service by measuring the intention of repurchase through broadcasting service of TV home shopping. In this relationship, I classified, systematically by product image, the customers' channel image for broadcasting sales service which are formed differently by TV home shopping company, and I tried to analyze how they affect each other respectively with any difference in purchasing satisfaction and customer loyalty.

Therefore, the purpose of this paper is to present the theoretical direction to improve the competitiveness of broadcasting service quality of TV home shopping and to suggest the theoretical basis for developing competitive elements that can further enhance global competitiveness of TV home shopping in Korea.

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II. LITERATURE REVIEW

A. Service Quality

A. Definition of Service Quality

In general, the service quality can be defined as “an evaluation degree of how well the quality level of service provided by a service provider matches the expectation level that a customer expects before demanding a service”. That is, the service quality is determined by the perception and judgment of the service consumers. So in case the service provided meets or exceeds the expectation of the customers, it can be said the service quality is excellent [1].

The research on service quality has begun actively starting with the study of [2] and [3]. They insisted that the service quality outcomes are derived by comparing the expectation degree with perceived performance.

[4] developed SERVQUAL scales to measure the service quality. In a study in 1985, [3] presented the determinants of service quality as ten dimensions, but not all of them were independent. Therefore, this model was revised into five dimensions such as tangibility, reliability, responsiveness, assurance, and empathy through empirical studies in [3].

B. Service Quality of TV Home shopping

The SERVQUAL model can be applied to a service field where a universal tendency in which the domain of measurable service is highly generalized, but it is disadvantageous in that cannot be applied to a region of a specific domain. In particular, the generalization and universality of these measures can cause big logical problems because there are various differentiations and specificities depending on the type in the service industry.

SERVQUAL model is constantly raised, [5] derived some measurement items in order to overcome that could serve as a basis for evaluation the service quality of retail stores through previous studies and various qualitative research methods. A conceptual model was also presented to grasp the structural linkage between the evaluation criteria presented. The R(etail)-SERVQUAL model was developed and presented by analyzing the models and scales presented through empirical studies, which can be effectively applied to various retail stores. For this model, the researchers argued that it can be used in various fields due to their universality and fluidity, but it is also necessary to modify or supplement some of them appropriately according to the purpose and scope of the research.

B. Purchasing Satisfaction

[6] defined the customer satisfaction as an evaluation of when the product or service purchased by the customer is consistent with the expectation of the product or service prior to purchase.

As a representative study from the latter point of view, in a study by [7], it defined the level of customer satisfaction as a result of the purchase of goods or services and the resultant level of the benefits obtained by using the purchase of the goods or services, that is, the analysis of cost-benefit obtained by using the service and purchased products, and the value of money, time, and physical strength paid by the customers for

the purchase of the goods and service.

Since the satisfaction affects customer's repeat purchase, return visit, positive word of mouth effect as an important factor that predicts of customer's behavior, there will be possibility that the customer loyalty and the customers' positive word of mouth action are increased[8].

C. Customer Satisfaction

A. Approach of Customer Satisfaction

The customer loyalty can be understood as a consistent attitude to continue trading relationships based on past experience[9]. Therefore, it is advantageous in terms of cost and efficiency to increase the loyalty of existing customers rather than attract new customers and recently many companies are making efforts to improve the customer loyalty not only by securing new customers but also by maintaining existing customers and strengthening their relationship [10].

Previous studies on online shopping have considered the customer loyalty as a key variable to measure the intention of users after purchasing, that is, intention of repurchase and continuous use. The customer loyalty includes willingness to purchase products and services repeatedly in the future, try to pass down to others and maintain lasting relationships, despite the various marketing demand of competitors.

III. MODELING AND HYPOTHESIS SETTINGS

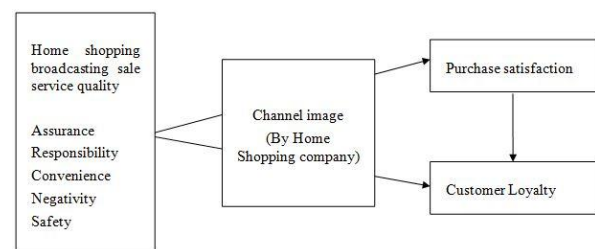


Fig. 1. Research Model

A. A. Analysis of Actual Proof

Based on previous studies on the quality of TV home shopping sales service, the quality of TV home shopping sales services was defined as five quality measurement factors for confidence, trust, convenience, negation, and safety in service. As shown in Fig-1, this research is empirically designed to examine whether the evaluation factors of these service quality affects customers' purchase satisfaction and customers' loyalty. And furthermore, it was tried to confirm whether the quality of broadcasting sales service has a moderate effect on the purchase satisfaction and the customer loyalty according to the channel image of each company by comparing the difference of the results according to the channel image of each TV home shopping company. With this, it was also analyzed whether there was a positive effect on the customer loyalty as the purchase satisfaction increases.

B. Variable Validation

A. Confidence

Confidence is a variable that a client measures the certainty of the service of a counselor in the broadcasting sale service of a TV home shopping company. Therefore, the satisfaction of the counselor service according to the call with the counselor is the main measurement contents, and the degree of confidence about the information provided by the counselor and the evaluation and comfort of the counselor's attitude are set as the main variable.

B. Reliability

Reliability is a variable that measures the customer's credibility in the product information provided by TV home shopping companies in providing broadcasting sales service. In order to measure this, it was set the main variables such as the accuracy of product information, diversity, degree of influence on purchase decision, and degree of assisting in product composition and quality judgment.

C. Convenience

Convenience is a variable that measures convenience of use when the customers use TV home shopping broadcast sales service. Therefore, the main variables are convenience of settlement, variety of payment methods, restriction of payment time and place, convenience of ARS, convenience of ordering with PC/smartphone, and convenience of exchange/refund and return.

D. Negativity

Negativity is a variable that measures the qualitative evaluation about negative aspects that are felt when using the broadcasting sales service of TV home shopping. In order to measure this, it was set the major measurement parameters such as the evaluation of exaggeration/ overstatement/ falsehood of broadcast contents, the negativity of product trust which comes from having to choose without seeing or feeling directly, and the negative perception of product stability.

E. Safety

Safety is a variable that measures the evaluation of the safety of information management and usage in using TV home shopping broadcasting sales service. In order to measure this, the safety of information management such as personal and payment information, and the safety of use of the product were set as the main measurement variables.

F. Channel Image

The channel image was set to the same concept as the image of the TV home shopping companies. Since the TV home shopping is a broadcasting service using media such as TV, it evaluated the product groups with strengths for 10 product groups in total by using the image of each broadcasting channel in the same meaning as the image of the company. It was also set a variable for measuring the image of the channel through evaluation of qualitative (emotional) images such as luxury, youthful feeling, activity, kindness, and service images such as quality, price, trust, diversity and convenience. The channel image was used as a control

variable to measure the adjustment effect, and it measured the customer image of home shopping channel of TV home shopping company by the above factors, and by converting the channel image into one variable by the average of the measured value by factor.

G. Purchase Satisfaction

Purchase satisfaction was set up as the main variable by measuring respectively overall satisfaction, and satisfaction of price, quality, composition, and delivery service based on the experience of purchasing life and kitchen utensils through the TV home shopping broadcasting.

H. Customer Loyalty

Customer loyalty was used as a proxy variable by measuring through the loyalty comparison with other online media and offline distribution channels, with the help of recommendation to others and repurchase of life and kitchen utensils through the TV home shopping broadcasting sales service. In other words, the repurchase intention and word of mouth effect are the main measurement variables of customer loyalty.

C. Hypothesis Settings

A. The Relation between the Selling of Homeshopping and Purchasing Satisfaction

It can be judged to be a very important part in terms of creating demand for continuous growth for a service providing company that we must continually deliver improved value and satisfaction to the customers by deriving and analyzing the customers' needs and the factors that hinder the level of satisfaction.

Various researches have been conducted on the keyword called a service quality, and among these prior studies, regarding the casual relationship between variable of service quality and purchase satisfaction, it has been suggested that in general the higher the service quality, the more the purchase satisfaction is improved ([4]Parasuraman et al., 1985).

Customer satisfaction is an emotional variable that is formed through the influences of leading variables or factors. However, in contrast, the service quality works as a cognitive measure to assess excellence and differentiation of individual attributes of the service. Therefore, it defined the service quality as a leading variable or factor for the customers' purchase satisfaction and the following hypothesis H1 was set up based on these theoretical perspectives and arguments.

H1: Broadcasting service will have a significant effect on the consumers' purchase satisfaction.

H1-1: The greater the confidence in the broadcast sales service, the more the consumers' satisfaction with the purchase.

H1-2: The higher the trust in broadcasting sales service, the more the consumers' satisfaction with the purchase.

H1-3: The more the consumers feel that broadcast sales service is convenient, the more consumers' satisfaction with the purchase.

H1-4: The more the negative aspects of broadcasting sales service are felt, the less the consumers' satisfaction with the purchase.

H1-5: The more the consumers feel that the broadcasting sales service is safe, the more the consumers satisfaction with the purchase.

B. The Relation between the Selling of Homeshopping and Purchasing Satisfaction

It defined service quality as a leading variable for the customer loyalty to TV home shopping broadcasting sales and set up the following hypothesis H2.

H2: Broadcasting sales service of TV home shopping will have a significant impact on the consumer loyalty.

H2-1: The more convinced about broadcast sales service, the more the consumer loyalty will increase.

H2-2: The higher the trust in broadcasting sales service, the more the consumer loyalty will increase.

H2-3: The more the consumers feel that broadcast sales service is convenient, the more the consumer loyalty will increase.

H2-4: The more the consumers feel negative aspects of broadcasting sales service, the less consumer loyalty will be.

H2-5: The more the consumers feel secure about the broadcast sales service, the more the consumer loyalty will increase.

C. The Relation between the Selling of Homeshopping and Customer Loyalty

[11]Oliver (1980) said that the customer satisfaction and customer loyalty have similar conceptual characteristics, and if the customer satisfaction is not satisfied basically, there will not be the customer loyalty, and it is said that the loyalty is formed naturally as the satisfaction of the temporary evaluation reaction after purchasing of the product and service is repeated.

Therefore, it set up a hypothesis to analyze whether the satisfaction of broadcasting purchase through TV home shopping could obtain similar results of previous studies with the same contents like the hypothesis H3.

H3: Improvement of purchase satisfaction on TV home shopping products will have a significant effect on increasing customer loyalty.

IV. ANALYSIS OF ACTUAL PROOF AND IMPLICATION

A. Survey Method

In this paper, the self-report questionnaires were used to obtain data on purchase satisfaction, customer loyalty, channel image, and TV home shopping service quality (convenience, assurance, reliability, safety, and negativity). All variables were measured by using the multidimensional scales that was used in the previous studies. The survey respondents were asked to rate the individual's opinion on the 5-point scale for each question from 'not at all' = 1 to 'strongly agree' = 5.

A. Survey Composition

In this paper, it is made up a questionnaire to measure

service quality of TV home shopping as an independent variable, the customer service evaluation and qualitative evaluation as a control variable, and confidence, reliability, convenience, negativity, and stability as a service quality. Particularly, 9 items were selected as the control variables. The service qualities are consisted of the following of 26 items in total; the reliability was composed of 6 items, reliability 6 items, convenience 8 items, negativeness 3 items, and stability 3 items. In addition to the questionnaire items related to the variables included in the study, the questionnaire included gender, age, occupation, educational background, and income to identify the demographic characteristics of the respondents.

B. Survey Method

For the empirical analysis of this paper, a survey was conducted. The survey was conducted on nationwide basis and without any restriction on gender and age range on the consumers who have experience of living and kitchen utensils purchase through TV home shopping broadcasting. As for the method of research, it was carried out in an online survey format with the help of a market research company having a large number of online panels nationwide. For this purpose, it was conducted a preliminary survey on 20 urban workers residing in Seoul City for 6 days from April 15 to April 20, 2015, and it was made up the questionnaires for this survey by revising and supplementing the questionnaire.

In this survey, a total of 500 questionnaires were distributed and 440 copies of reliable questionnaires for this study were used as the final analysis data, except for the unsuccessful responses and the unsuitable questionnaires.

C. Analysis Method

Data collected for this study were analyzed by using the SPSS 20.0 statistical program. In this study, the content validity was secured through the content adjustment process and the related literature study, the internal consistency was judged by the reliability analysis, factor analysis was performed after reliability analysis to remove the items that hinder single dimensionality.

Finally, the results of the hypothesis of the whole model are summarized through verification by using the regress analysis of the degree of influence of TV home shopping service quality on the customer's purchase satisfaction and customer loyalty. In order to measure the characteristics of the sample, a frequency analysis was used.

B. Research

A. Population Statistics

In this paper, it is made up a questionnaire to measure service. The total number of samples for the questionnaire was set at 500, and the survey was conducted to analyze 440 valid questionnaires except for the questionnaires with a large number of inadequate or low response rates among the total survey respondents. As a result of analysis, the respondents' gender was 43.2% for male and 56.8% for female, and the average monthly household income was 35.7% for 4~6million won and 29.1% for 2~4 million won. The average income of the respondents was

somewhat higher and it was because the scope of the subjects was limited to Seoul and the capital area. In the case of academic attainments, the majority of students graduated from a 4-year program of 58.9%, and 2-year graduates and less than high school graduates accounted for 19.6% and 15.2% respectively. In the occupation, 61.8% of office workers showed a much higher distribution, and self-employed accounted for the second highest percentage of 9.3%. In addition, in the case of age, 30s were 166 people accounted for 37.7%, 40s were 120 people accounted for 27.2%, and 30-40s accounted for 65% of the total, accounting for more than half of the total. Therefore, the sample characteristics of this empirical analysis are characterized by being composed of men and women who graduated from four-year colleges with occupations in their 30s or older.

B. Consumer's Preference on TV Home shopping

In purchasing TV home shopping, for the actual condition of purchasing experience and purchasing frequency of household goods (kitchen utensils), first, in the case of household goods (kitchen utensils) purchasing experience, 440 respondents that is 100% of respondents, purchased household goods or kitchen utensils through TV home shopping (broadcasting).

In addition, the result of investigating monthly average purchase frequency was 25.5% for the second time, 25.0% for the first time, and 23.4% for less than one time. That is, the proportion of purchasing home shopping products at a frequency of less than one time to two times or less is as high as 73.9% that appears it occupied a very large proportion.

V. ANALYSIS OF ACTUAL PROOF

A. Validity and Reliability

In this study, the validity of the concept was examined to see whether the abstract concept to be measured was properly measured by the measurement tool using this factor analysis. As a factor extraction method, principal component analysis was performed to minimize the loss of information while minimizing the number of factors, and it was made immediately rotate. At this time, when factor loading value is 0.4 or more, it can be regarded as a significant variable. As shown in table 1, the factor loadings are valid for each variable in this study, so the research model is suitable.

Reliability verification has the same meaning as stability, homogeneity, predictability, accuracy, etc., indicating precision or accuracy of a measurement tool. Reliability analysis is an analysis of whether internal consistency occurs when the same concept or object is measured several times in an independent measurement manner or measured repeatedly with one measuring tool.

In general, methods for measuring the reliability of data are to use remeasurement method, alternative form method, item bisection method, and internal consistency method. Among these, the internal consistency measurement method using Cronbach's α is the most commonly used reliability verification method.

Therefore, this study also verified the reliability through the method of measuring the internal consistency. The internal consistency method is a method of increasing the

reliability of the measurement tool by identifying items that impair reliability and excluding them from measurement tools when using multiple items to measure the same concept, and analyzing them using Cronbach's α value. Nunnally (1978) stated that Cronbach's α value of 0.6 or more is sufficient in exploratory research field, more than 0.8 in the basic research field, and more than 0.9 in the field of applied research, where critical decisions are required. The variables of this study were classified into independent variables, control variables and dependent variables. Therefore, in this study, we conducted reliability analysis using the most widely used Cronbach's alpha value.

As a result of exploratory factor analysis for each attribute in service quality, independent variable, total factor 5 was derived based on eigen value 1. The derived factors that can be explained by convenience, reliability, reliability, safety, and negativity and the factor loading was 0.5, or more and total explanatory power was 57%.

Table- I: Analysis of factor and reliability

| Division | Items | Components | | | | | Cronbach's α |
|-------------|-----------------------------------|------------|------|------|-------|-------|---------------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| Convenience | No place bondage | .735 | .096 | .049 | .160 | .036 | .833 |
| | Order by watching TV | .677 | .120 | .071 | .245 | .009 | |
| | Easy to buy | .672 | .171 | .198 | .038 | -.011 | |
| | Use credit card | .656 | .135 | .237 | -.076 | .047 | |
| | Payment | .608 | .252 | .178 | -.176 | .082 | |
| | Variety of payment methods | .562 | .256 | .271 | .011 | .097 | |
| | ARS ordering | .548 | .318 | .120 | .073 | -.047 | |
| Confidence | Exchange, return, refund | .501 | .330 | .074 | .375 | -.065 | .832 |
| | Counselor's promise observance | .166 | .720 | .179 | .218 | -.068 | |
| | Counselor's responsibility | .210 | .700 | .169 | .128 | -.017 | |
| | Confident via counselor | .198 | .690 | .190 | .233 | -.094 | |
| | Counselor's comfort | .253 | .639 | .192 | .152 | .013 | |
| | Counselor's knowledge acquirement | .225 | .614 | .275 | .032 | .077 | |
| | Counselor's courtesy | .340 | .595 | .210 | -.247 | .141 | |
| Reliability | Accurate product information | .146 | .235 | .742 | .106 | -.089 | .825 |
| | Sufficient for purchase decision | .184 | .158 | .719 | .112 | -.047 | |
| | Various product information | .278 | .169 | .653 | .073 | .049 | |
| | Clear communication | .222 | .245 | .627 | .143 | -.106 | |
| | Appropriate quality judgment | .009 | .259 | .558 | .394 | -.192 | |
| | Appropriate product composition | .177 | .154 | .539 | .336 | -.070 | |



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| | | | | | | | |
|---|--|--------|--------|--------|--------|--------|------|
| Safety | Secure processing of payment information | .124 | .091 | .121 | .782 | -.106 | .758 |
| | Personal information management | .005 | .109 | .257 | .769 | .066 | |
| | Product safety | .072 | .158 | .181 | .759 | -.107 | |
| Negativity | Difficult Quality Trust | .084 | -.030 | -.045 | -.071 | .816 | .808 |
| | Suspicion of safety | -.041 | .014 | -.111 | .091 | .805 | |
| | Overall exaggerated broadcast | .078 | .014 | -.058 | -.205 | .799 | |
| Distributed Description Ratio(%) | | 14.264 | 12.847 | 11.929 | 10.101 | 8.121 | |
| Cumulative Distributed Description Ratio(%) | | 14.264 | 27.111 | 39.040 | 49.141 | 57.261 | |

As a result of exploratory factor analysis on the dependent variables, purchase satisfaction and customer loyalty, two factors were derived based on Eigen value 1. The derived factors can be explained by the level of purchase satisfaction and customer loyalty. Factor loadings were 0.6 or more, excluding willingness to purchase home shopping in the future, and the intention to purchase home shopping is also 0.4 or more. The total explanatory power of the dependent variable is about 55%.

Table- II: Result of factor analysis(dependent variable)

| Division | Items | Components | | Cronbach's α |
|---|-----------------------------------|------------|---------------------|---------------------|
| | | 1 | Cronbach's α | |
| Purchase Satisfaction | Overall life | .800 | .050 | .747 |
| | Quality of life | .692 | .212 | |
| | Life composition | .632 | .294 | |
| | Living price | .624 | .222 | |
| | Living delivery | .622 | .100 | |
| Customer Loyalty | Future purchases of home shopping | .473 | .485 | .762 |
| | Prefer over other off-line | .118 | .842 | |
| | Prefer over other on-line | .104 | .807 | |
| | Recommendation to others | .390 | .686 | |
| Distributed Description Ratio(%) | | 30.084 | 30.084 | |
| Cumulative Distributed Description Ratio(%) | | 24.979 | 55.063 | |

As shown in table 1 for Cronbach's alpha value for independent variables, convenience is shown as .833, confidence is .832, reliability is .825, safety is .758, negative is .808, customer image is .829 while purchase satisfaction is .747, and customer loyalty is .762 as shown in table 2 for dependent variables. Based on this, the variables included in this study, that is, convenience, reliability, reliability, safety, negativity, customer image, purchase satisfaction, and customer loyalty, show that is relatively high above the standard value ranging from .747 to .833. Therefore, it can be concluded that the reliability of the measurement items used in this study is secured.

B. Hypothesis Test

In this study, the regression analysis which is an analytical

technique describing the linear combination of independent variables was used to verify the influence relationship of broadcasting sales services on the customer loyalty and purchase satisfaction. H 1 analyzed the effect of service quality on purchase satisfaction and H 2 analyzed the effect of service quality on customer loyalty. H3 has analyzed the effect of purchase satisfaction on customer loyalty, and H 4 and H 5 analyzed the effect of service quality on customer satisfaction and customer loyalty according to the customer image.

A. Sales Service – Purchase Satisfaction Test

Table 3 shows the hypothesis test result for the effect of sales service to purchase satisfaction. As a result of the H-1 test that the satisfaction level of consumers' purchase satisfaction is high when the broadcasting sales service is highly confident, the t value of confidence is 4.655 ($p=.000$), which is statistically significant at the level of significance. Likewise, the t value of reliability is 5.744 ($p=.000$), which was statistically significant at the significance level. For the convenience, among the quality of broadcasting sales service, it shows that the t value is 6.404 ($p=.000$) and the beta value is .289 which is most significant effect, and the safety is also affected by 2.846.

Table- III: Effect of sales service to purchase satisfaction

| Model | Non-Normalized coefficients | | Normalized coefficients | t | P |
|-------------|-----------------------------|------|-------------------------|-------|------|
| | β | beta | beta | | |
| (constant) | .769 | .173 | | 4.438 | .000 |
| Confidence | .200 | .043 | .221 | 4.655 | .000 |
| Reliability | .230 | .040 | .267 | 5.744 | .000 |
| Convenience | .270 | .042 | .289 | 6.404 | .000 |
| Negativity | -.007 | .028 | -.009 | -.255 | .799 |
| Stability | .077 | .027 | .109 | 2.846 | .005 |

Note: *adj R^2 :0.505, F:88.690, P: 0.000***, * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

However, in the case of negativity, because the t-value appears as -.255 ($p=.799$) which indicates not significant, H 1-4 is rejected. In the regression model, F value shows as 88.690 ($p=.000$) in numerical value, and adj $R^2=.505$ shows explanatory power of 50.5%. Therefore, in this hypothesis, it can be seen that all of the broadcasting sales service except for 1-4 affects positively (+) on consumers' purchase satisfaction, and all the significance probability is also statistically significant.

B. Sales Service by TV Homeshopping – Customer's Loyalty Test

Table 4 showed the results of the effect of sales services by TV homeshopping on customer's loyalty and the relationship showed the most significant effect. In the case of confidence and negativity, both hypotheses were rejected because they did not satisfy the significance level. This is because, in the case of customer loyalty, the reliability and convenience of life/kitchen utensils are more important than the overall service quality (Confidence) of the counselor or the negative image (negativity) the company has.

In regression model, the F value is 54.966 (p=.000), and adj R2=.388 shows the explanatory power of 38.8%. Therefore, H2 is analyzed as partial adoption by rejecting H2-1 and 2-4.

Table- IV: Sales service by TV homeshopping – customer’s loyalty test

| Model | Non-Normalized coefficients | | Normalized coefficients | t | P |
|-------------|-----------------------------|------|-------------------------|--------|------|
| | β | S.D. | beta | | |
| (constant) | .893 | .228 | | 3.912 | .000 |
| Confidence | -.023 | .057 | -.021 | -.407 | .684 |
| Reliability | .375 | .053 | .367 | 7.106 | .000 |
| Convenience | .178 | .056 | .161 | 3.202 | .001 |
| Negativity | -.041 | .037 | -.044 | -1.124 | .262 |
| Stability | .213 | .036 | .254 | 5.950 | .000 |

Note: *adj R²:0.388, F:54.966, P: 0.000***, *p<0.1, **p<0.05, ***p<0.01.

C. Purchase Satisfaction by TV Homeshopping – Customer’s Loyalty Test

As shown in table 5, the t value of purchase satisfaction appears as 13.313 (p=.000), and it is positively affected. In the regression model, the F value shows 117.226 (p = .000). The decision coefficient, adj R2, is .288, which gives the explanatory power of 28.8%. H 3 is adopted accordingly.

Table- V: Purchase satisfaction by TV homeshopping – customer’s loyalty test

| Model | Non-Normalized coefficients | | Normalized coefficients | t | P |
|--------------|-----------------------------|------|-------------------------|--------|------|
| | β | S.D. | beta | | |
| (constant) | 1.055 | .172 | | 6.120 | .000 |
| Satisfaction | .635 | .048 | .537 | 13.313 | .000 |

Note: *adj R²:0.288, F:117.226, P: 0.000***, *p<0.1, **p<0.05, ***p<0.01

D. Moderated regression (Sales service – purchase satisfaction)

When we look at the value of the effect on purchase satisfaction according to the channel image of the broadcasting sales service, the t-value of confidence, reliability, convenience, negativity, and safety and the significant probability has a value that is out of the significance level statistically. As shown in table 6, the regression model F value is 58.041 (p=.000), and the explanatory power is increasing as adj R2=.505 in the first step model, adj R2=.597 in the second step model, and adj R2=.599 in the third step model, but all of them don’t have significant value statistically. Therefore, the hypothesis that H4 TV home shopping channel image will have a significant effect on consumers' purchase satisfaction in broadcasting sales service was rejected.

Table- VI Moderated regression for purchase satisfaction

| Model | Model 1 | | Model 2 | | Model 3 | |
|-------------|---------|--------------|---------|--------------|---------|-------------|
| | β | t-value | β | t-value | β | t-value |
| (constant) | | 4.438 (.000) | | 2.194 (.029) | | -.637(.525) |
| Confidence | .221 | 4.655 (.000) | .102 | 2.283 (.023) | .182 | -.605(.545) |
| Reliability | .267 | 5.744 (.000) | .110 | 2.450 (.015) | -.040 | -.138(.890) |
| Convenience | .289 | 6.404 (.000) | .181 | 4.288 (.000) | .518 | 1.775(.077) |

| | | | | | | |
|--------------------------|-------|--------------|-------|--------------|-------|--------------|
| Negativity | -.009 | -.255 (.799) | -.002 | -.064 (.949) | .008 | .040(.968) |
| Safety | .109 | 2.846 (.005) | .068 | 1.955 (.051) | .046 | .195(.846) |
| Channel image | | | .459 | 9.895 (.000) | .734 | 2.710(.007) |
| Confident*Channel image | | | | | -.126 | -.244(.807) |
| Trust*Channel image | | | | | .249 | .533(.594) |
| Convenient*Channel image | | | | | -.605 | -1.157(.248) |
| Negative*Channel image | | | | | -.019 | -.082(.934) |
| Safety*Channel image | | | | | .030 | .095(.924) |
| f-value | | 88.690 | | 106.732 | | 58.041 |
| R ² | | .505 | | .597 | | .599 |
| Adj R ² | | .500 | | .591 | | .588 |

E. Moderated Regression(TV Homeshopping Channel Image)

First, in order to judge the occurrence of fitness of the model and control effect, it was identified whether the change amount of R2 increases at a significant level when the interaction term of the third model is input. As shown in table 7 for moderated regression, the model of this hypothesis shows that the variation of R2 is increased from adj. R2= .388 in the first step model to adj R2=.457 in the second step model and adj R2= .473 in the third step model. In addition, there is a meaningful result at the significance level of 0.05 or less when the interaction term is input. Therefore, in relation to broadcasting service and customer loyalty of TV home shopping, the customer's channel image plays a role of controlling the relation between independent variable and dependent variable.

When analyzing the interaction effect in detail, among the broadcasting sales service, the t-value of the effect of reliability on customer loyalty according to customer’s channel image was 2.029 (p=.043), which was significant at 0.5 level or less. Among the broadcasting sales service, the t-value of the negative effect on customer loyalty according to the customer’s channel image is 1.753 (p=.080), which was statistically significant at a significance level of less than 0.1. For the rest of the hypotheses, all of them were found to have value that was statistically out of significance.

Table- VII Moderated regression (TV homeshopping channel image)

| Model | Model 1 | | Model 2 | | Model 3 | |
|-------------|---------|---------------|---------|---------------|---------|---------------|
| | β | t-value | β | t-value | β | t-value |
| (constant) | | 3.912(.000) | | 2.093(.037) | | 3.165(.002) |
| Confidence | -.021 | -.407(.684) | -.125 | -2.427 (.016) | -.087 | -.254(.800) |
| Reliability | .367 | 7.106(.000) | .230 | 4.425(.000) | -.436 | -1.307 (.192) |
| Convenience | .161 | 3.202(.001) | .067 | 1.360(.174) | .037 | .110(.912) |
| Negativity | -.044 | -1.124 (.262) | -.038 | -1.028 (.304) | -.424 | -1.882 (.061) |
| Safety | .254 | 5.950(.000) | .218 | 5.387(.000) | .117 | .428(.669) |



How it effects the Influence of Customer Satisfaction and Customer Loyalty of Internet-based TV Home Shopping Service Quality

| | | | | | |
|--------------------------|--------------|--------------|--------------|-------|---------------|
| Channel image | | .401 | 7.441(.000) | -.470 | -1.515 (.130) |
| Confident*Channel image | | | | -.036 | -.061(.951) |
| Trust*Channel image | | | | 1.084 | 2.029(.043) |
| Convenient*Channel image | | | | .055 | .091(.927) |
| Negative*Channel image | | | | .460 | 1.753(.080) |
| Safety*Channel image | | | | .127 | .355(.723) |
| f-value | 54.966(.000) | 60.772(.000) | 34.955(.000) | | |
| R ² | .388(.000) | .457(.000) | .473(.018) | | |
| Adj R ² | .381 | .450 | .460 | | |

Accordingly, for the customer who has a high reputation on channel images, the customer loyalty increased by 1.089 whenever the reliability of broadcasting sales service increased by 1 unit. In the case of customers with high rating on channel images, the customer loyalty increased by .430 whenever the negativity of broadcasting sales service increased by 1 unit. The hypothesis that the influence that TV home shopping broadcasting sales service affects the purchase satisfaction according to customer's channel image effect would happen according to channel image the customers have that the trust on H 5-2 broadcasting sales service affects on the customer's loyalty was adopted. And the hypothesis is also adopted that the influence of the negative feeling about the broadcasting sales service affects the customer loyalty will be happened according to the channel image the customers have.

C. Implication

The hypothesis of H 1, "The broadcasting sales service of TV home shopping will have a significant effect on the customer's purchase satisfaction" was appeared as <Table 8> that the higher certainty, reliability, convenience, safety in TV home shopping broadcasting sales service, the higher the purchase satisfaction. However in the case of negativity, the effect was not observed and the hypothesis was partially adopted.

Table- VIII Hypothesis Test (H1)

| Hypothesis Contents | Results |
|--|-------------------|
| H1 : Broadcasting sales service will significantly affect the customer's purchase satisfaction. | Partially Adopted |
| H1-1 : The more the customer has confidence in the broadcasting sales service, the more the customer purchase satisfaction will be increased. | O |
| H1-2 : The higher the customer's trust in the broadcasting sales service, the more the consumer satisfaction will be increased. | O |
| H1-3 : The more the consumer feels that the broadcasting sales service is convenient, the more consumers purchase satisfaction will be increased. | O |
| H1-4 : The more the consumer feels the negative aspect of the broadcasting sales service, the more the customer purchase satisfaction will be decreased. | X |
| H1-5 : The more the customer feels safety of the broadcasting sales service, the more the customer's purchase satisfaction will be increased. | O |

The hypothesis of H 2, "The broadcasting sales service will have a significant effect on the consumer loyalty increase"

was appeared like the following <Table 9> that the higher the reliability, convenience, safety in T home shopping broadcasting sales service, the more the customer loyalty will increase. But in the certainty and negativity, the effect was not observed and the hypothesis was partially adopted.

Table- IX Hypothesis Test (H2)

| Hypothesis Contents | Results |
|--|---------|
| H2 : Broadcasting sales service will significantly affect the consumer's customer purchase satisfaction. | Adopted |
| H2-1 : The more the customer has conviction on the broadcasting sales service, the more consumer's customer loyalty will be increased. | X |
| H2-2 : The more the consumer has confidence on the broadcasting sales service, the more consumer's customer loyalty will be increased. | O |
| H2-3 : The moer the consumer feels convenience of the broadcasting sales service, the more the consumer's customer loyalty will be increased. | O |
| H2-4 : The more the consumer feels negative aspect of the broadcasting sales service, the more the consumer's customer loyalty will be decreased | X |
| H2-5 : The more consumer feels the safety on the broadcasting sale service, the more the consumer's customer loyalty will be increased. | O |

The hypothesis of H 3, "The purchase satisfaction of TV home shopping will have a significant effect on consumer's customer loyalty" was showed as the following <Table 10> that the more the TV home shopping purchase satisfaction increase, the more the customer loyalty increase, and it was adopted.

Table- X Hypothesis Test (H3)

| Hypothesis Contents | Results |
|--|---------|
| H3 : The increase of purchase satisfaction on TV shopping products will have a significant effect on the increase of customer loyalty. | Adopted |

VI. CONCLUSION

The first task of this study was to consider which factors in the quality of broadcasting sales service of TV home shopping affect purchase satisfaction (H 1) and customer loyalty (H 2). As a result of analysis, it was found that the confidentiality, reliability, convenience and safety among TV home shopping service qualities had significant positive (+) effects on purchase satisfaction, but it was not significant in case of negativity. Also, in the case of confidence and negativity among service quality, it did not show significant results in customer loyalty.

The second task of this study was to consider how customers' purchase satisfaction affects customer loyalty (H 3). It was shown that the higher the customer satisfaction level, the higher the customer loyalty (+).

Therefore, the conclusions of this study are as follows. First, the measurement of service characteristics in online retail distribution channels such as the existing TV home shopping and Internet shopping malls was about factors such as price factors or responses to customer opinions. However, in this study, it was estimated that it is difficult to have a differentiation because the level of service is equalized due to the



advanced competition between TV home shopping companies, and excluded from the subject of measurement. In the case of the delivery service, the results of the empirical analysis showed that there was no statistical significance. It can be seen that this is not different due to the reasons similar to the above factors.

In addition, the analysis of that the negative aspects in TV home shopping broadcasting sales services, such as falsification, overstatement, exaggerated advertising, or reliability of ordering without seeing or touching did not affect the purchase satisfaction was also a influencing factor in the existing research. However, regarding the negative image or matters related to fair trade recently, it can be regarded as not an influence variable since the service has been upward leveling of services.

Therefore, in the past three years, as two home shopping channels, Home & Shopping and Public home shopping, which prioritize public purpose, have been launched, and the market competition is intensifying. At this point, it can be used realistically and practically in establishing a strategy to secure competitive advantage in the future through the evaluation of such advanced TV home shopping broadcasting service.

Also, from the aspect of control effect, due to the characteristic of the subject of life/kitchen utensils, it could be concluded that the customers who have a good image of purchasing channel are more reliable on the channel that gives detailed (reliability) and accurate (negativity) information about the product and constantly buy. This is because the items I focused on were relatively inexpensive and frequently used living and kitchen utensils, so it has affected customers' loyalty by more intuitive and reliable product information (correct product composition, reliable product quality, clear product description) than the price or service of channel itself which was shown in the course of the research (counselor, convenience of payment, safety of purchasing process).

Second, it can be possible to present the management guidelines of TV home shopping business through the results of this study. Providing services that can provide customers with trust in TV home shopping services can be a good way to improve customers' satisfaction and loyalty through channel images that are built by customers.

Therefore, it is necessary to plan a strategy for enhancing the image of the customer's service sector by providing the service based on the trust in order to increase the customer loyalty based on the effect of the control variables of this study. At the same time, the increase of efficient customers' loyalty can be achieved by establishing measures to enhance customers' qualitative evaluation when providing safety-related services.

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