International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 9, Issue 3, 2019

The Effect of the Service Quality of Consulting Education on Consulting Job Competency and Satisfaction

Yong-Ki Hong[a], Yen-Yoo You[b*], Woo-So Jeon[c], [a,b,c]Department of Smart Convergence Consulting, Hansung University, ASI KR KS013 Seoul, Email: [a]123biz@naver.com, [b*]threey0818@hansung.ac.kr, [c]wooso.jeon@gmail.com

With regard to the consulting competency of the knowledge service industry, which requires creativity and expertise, this research examines the effect of the service quality of consulting education on consulting competency and satisfaction. A survey was conducted for this study. The subjects were the students and graduates of the Consulting Professional Graduate School located in Seoul, Korea. The survey items consisted of 41 questions including eight demographics, and a five-point Likert scale was used. For empirical analysis, descriptive statistical analysis, exploratory factor analysis and reliability analysis were performed using SPSS version 22, and confirmatory factor analysis, structural model analysis and mediating effect test were carried out using AMOS 22. The results of this study are as follows. First, the service quality of consulting education had a positive effect on the knowledge area of consulting job competency, but it did not have a significant effect on the execution area. Accordingly, when forming or running the Consulting Professional Graduate School's curriculum, professors need to improve their curriculum so, rather than simply imparting consulting-related knowledge to students, students can enhance their ability to conduct consulting in the field. Second, since the education service quality had a positive effect on satisfaction, this means faculty members should have expert knowledge. Thorough preparation for lectures and time management are also needed to improve satisfaction with the school. Third, job competency has been shown to have a mediating effect on the relationship between education service quality and satisfaction. Comprehensive research has shown empirically that good education service quality improves consulting job competency and, as a result, improves satisfaction with the school. In the sense that the study only covers a survey in one Consulting Professional Graduate school in Seoul, Korea, there are limitations to general application to the entire consulting education. Nevertheless, the research is meaningful in that an attempt to study the preceding variables of the consulting job

competency has provided a policy basis for the development of the consulting industry, a representative knowledge service.

Key words: *Consulting; knowledge service industry; service quality; consulting education; consulting job competency; satisfaction; Consulting Professional Graduate School.*

Introduction

The knowledge service industry is a high value-added industry with very high labour productivity, but the polarisation has been severe, with foreign consulting firms accounting for the majority of sales due to low social awareness of the value of knowledge services and insufficient supply capacity. The government of Korea has therefore designated and operated Consulting Professional Graduate Schools since 2008 to provide professionals with field experience and expertise as part of its strategy to raise the standard of the knowledge service industry. For a long time, Consulting Professional Graduate Schools have provided professionals to various fields and played a major role in leading the consulting industry through the development of teaching materials, thesis presentations and seminars, and hosting academic seminars and conferences. The purpose of this study was to prove the effect of the service quality of consulting education on the job competency and satisfaction as preceding variables of consulting job competency, centring on H Consulting Graduate School, which produces numerous professionals.

Literature Review

Education Service Quality

Education services (suppliers) provide satisfaction to students (consumers) by providing tangible and intangible services related to the achievement of educational objectives. They provide activities from the viewpoint of view of schools and a bundle of benefits from the perspective of customers (Park, 1998). However, the quality of education service is different for each student, and it is difficult to define and measure quality accurately due to the inherent characteristics of the service. For this reason, the quality of education service can be seen as the subjective quality of service 'perceived' by consumers rather than objective quality (Carman, 1990). Assessments of the components of the quality of education service vary widely among researchers. The branch of research direction has been divided among the scholars who define them as reliability, responsiveness, certainty, tangibility and empathy based on the SERVQUAL model (Parasuraman et al., 1985) and those who define them as physical and administrative factors such as educational factors, administrative factors, welfare factors and human factors (Kim, 2002).

Consulting Job Competency

The first person to introduce the concept of competency was McClelland (1973), who referred to competency as 'a bundle of outcomes through one's whole life', and defined it as a variety of characteristics that could predict or explain individual performance. Previous studies on consulting competencies have defined competencies as knowledge, skills and attitudes, which are internal characteristics of individuals, and add inherent inclinations such as motivation and self-concepts; sometimes the characteristics of people who perform well are seen as competencies. While there are differences between these definitions, it is common for most studies of competency to consider performance as a whole (Yoon, 2008). Lee Ji-Eun and Suh Chang-Juck define competency as a behavioural characteristic that is related to the knowledge, skills and attitudes inherent in consultants and consistently appears in those who produce high performance. They selected and classified 18 detailed consulting competencies based on previous research and expert interviews, then applied the Management Consulting Competency Model, made up of job competency, management competency and common competency by applying AHP analysis. This is presented in Figure 1 (Lee et al., 2010).

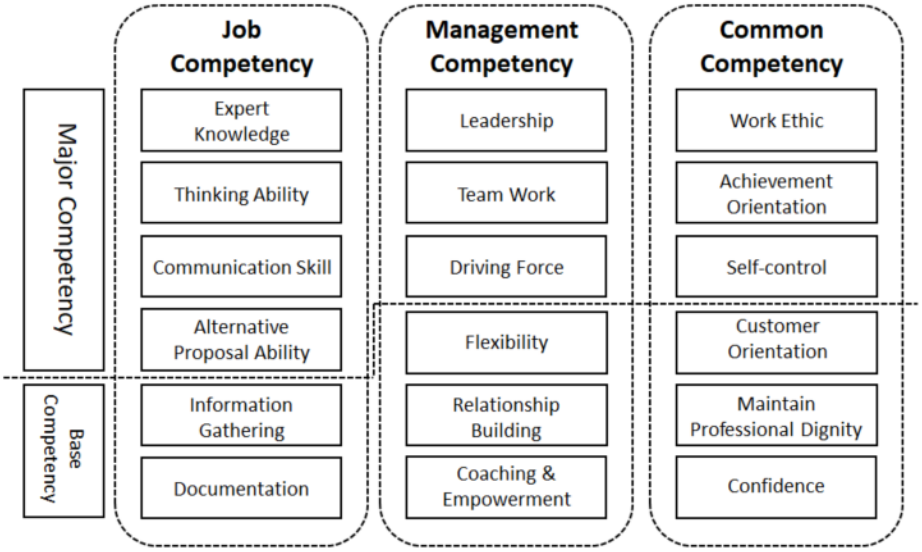

Figure 1. Management Consulting Competency Model

Satisfaction

Unlike research on customer satisfaction in business administration, there is little research on satisfaction in education because it is difficult to accurately define and measure service concepts and satisfaction. However, as the number of school-age students decrease and universities are faced with the age of unlimited competition, they are starting to recognise who their customers are and beginning to use the term 'student satisfaction'. This is a

market or customer-oriented step to gain a competitive advantage over other universities by satisfying the primary consumers: students (Lee et al., 2002). School satisfaction theory begins with the theory of customer satisfaction, which refers to the degree to which learners have been influenced during the teaching-learning period. Satisfaction can be regarded as a comparison achievement between expectations and perceived services (Jeon, 2013). The sub-factors affecting satisfaction are research that investigates the effects on satisfaction by classifying them into teaching factors, class contents factors, interaction and feedback, class operation factors and type factors (Shin & Min, 2009) In other studies, satisfaction was measured by using the measurement factors such as reliability factors, teaching factors, empathy factors, employee factors and type factors as the measurement factors (Kang & Choi, 2008).

Research Model and Hypothesis

Research Model

The basis of the research model was accepted as the education service quality, consulting job competency and satisfaction in the Consulting Professional Graduate School. The education service quality suggested by previous studies was composed of curriculum and quality of education, and the consulting job competency consisted of expert knowledge, thinking ability, communication skill and alternative proposal ability. In this study, education service quality was used as an independent variable, consulting job competency as a parameter and satisfaction as a dependent variable. The reason for setting consulting job competency as a parameter is that, regardless of direct satisfaction with education service, the level of satisfaction will also be high if job competency improves. The hypothesis was formulated to verify the effect of education service quality on consulting job competency and satisfaction. The research model is shown in Figure 2.

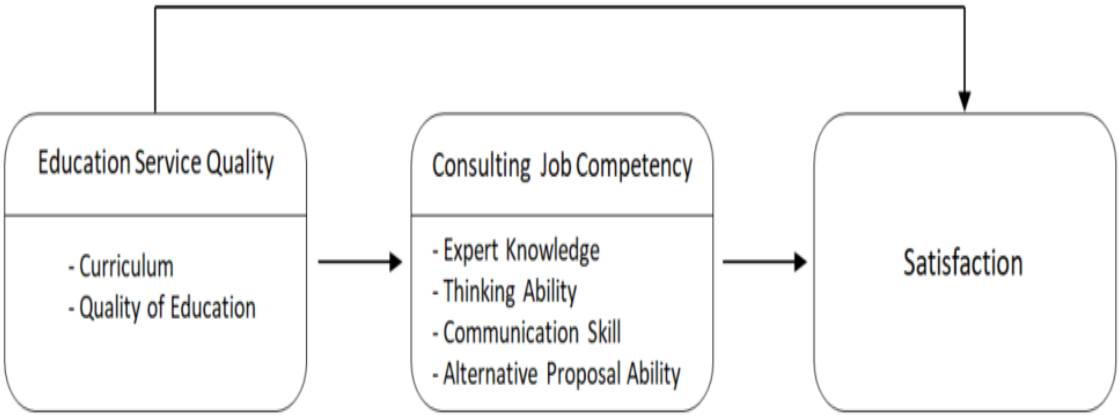

Figure 2. Research model

Hypotheses

H1 Education service quality will have a positive effect on consulting job competency.
H2 Education service quality will have a positive effect on satisfaction.
H3 Consulting job competency will have a positive effect on satisfaction.
H4 Consulting job competency will have a mediating effect on the relationship between education service quality and satisfaction.

Operational Definition of Variables

The operational definitions of the variables are summarised in Table 1.

Table 1: Operational definition of variables

Evaluation Items	Measurement variables	Operational definition	Researcher
Education service quality	Curriculum Quality of Education	Defined as tangible and intangible services provided to achieve educational purposes, the curriculum and the curriculum operation process subjectively perceived by students	(Park, 1998 ; Carman, 1990; Parasuraman et al., 1985; Kim, 2002)
Consulting job Competency	Expert Knowledge	Acquisition of various expertise required for consulting (consulting methodology, general management, industrial information, statistical analysis, etc.)	
	Thinking Ability	Ability to aggregate fragmentary information to derive problems or to identify problems in the context as a whole	(McClelland, 1973; Yoon, 2008; Lee et al., 2010; Lee et al., 2002)
	Communication Skill	Verbal skills for effective communication with client companies and internal and external members	
	Alternative Proposal ability	Ability to derive the source of problems and problems faced by the client company and to propose alternatives	
Satisfaction		The degree of satisfaction of students with the quality of education service	(Jeon, SY. (2013; Shin & Min, 2009; Kang & Choi, 2008)

Results and discussion

Demographic Analysis

The total number of samples used in this study was 124, and frequency analysis was conducted to determine the demographic characteristics of the samples. The results are summarised in Table 2.

Table 2: Demographic frequency analysis

Contents		**Frequency**	**Percentage**
Purpose of admission	Personal fulfilment of value	23	18.5
	Improved professionalism	64	51.6
	Employment	4	3.2
	Academic degree	33	26.6
Total		124	100.0
Undergraduate major	Economics and management	48	38.7
	Humanities and society	47	37.9
	Science and engineering	24	19.4
	Other	5	4.0
Total		124	100.0
Consulting career	5 years or less(Include No career)	86	69.4
	10 years or less	19	15.3
	15 years or less	11	8.9
	More than 15 years	8	6.4
Total		124	100.0

Exploratory Factor Analysis

To test the validity of the variables used in this study, we conducted an exploratory factor analysis on the education service quality, consulting job competency and satisfaction variables. Principal component analysis was used to extract the constituent factors, and the orthogonal rotation method (Varimax) was used to simplify factor loading. As a result of factor analysis, consulting job competency was divided into two factors, unlike the competency model of the previous study. The model was modified and applied to subsequent analysis as shown in Figure 3 by reclassifying expert knowledge and thinking ability as ‘knowledge area’, and communication skill and alternative proposal ability as ‘execution area’.

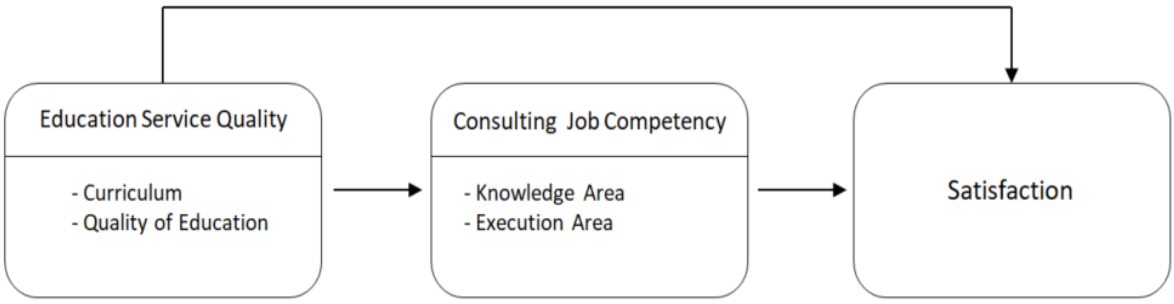

Figure 3. Research model (change)

Confirmatory Factor Analysis, Reliability and Validity Analysis

To test the fit of the data, we used CMIN (≤3), GFI (≥0.90), AGFI (≥0.80), CFI (≥0.90), NFI (≥0.90), IFI (≥0.90), TLI (≥0.90), RMR (≤0.05), RMSEA (≤0.08); all the standard values were suitable except for GFI and AGFI, which may be affected by the inconsistency caused by the sample characteristics. In all questions, the SMC (Squared Multiple Correlation) value, which determine how much the measured variable describes the latent variable, was over 0.4. Reliability analysis showed that Cronbach's alpha value was 0.802 ~ 0.913 (≥ 0.6), and all the factors were reliable. Next, the construct reliability (CR≥0.7) value was used to evaluate intensive validity. The construct reliability (CR) determined that all variables had a value of 0.8 or higher to secure intensive validity; the average variance extracted (AVE≥0.5) value used to evaluate discriminant validity also showed that all variables had a value of 0.6 or more, as shown in Table 3.

Table 3: Results of confirmatory factor analysis

Latent variable	Observation variable	Standardized regression weights	SE	t-value	SMC	AVE	C.R	Cronbach's alpha
Curriculum	1	.816	Fix		.665	.679	.913	.907
	2	.782	.124	9.967	.612			
	3	.917	.097	12.575	.840			
	4	.748	.119	9.375	.560			
	5	.840	.103	11.051	.706			
Quality of Education	1	.837	Fix		.701	.746	.936	.913
	2	.865	.087	11.967	.748			
	3	.795	.089	10.483	.632			
	4	.830	.100	11.212	.689			
	5	.791	.095	10.418	.626			
Knowledge	K 1	.754	Fix		.569	.729	.931	.889

Area	K 4	.721	.149	8.124	.519			
	T 1	.817	.111	9.363	.668			
	T 2	.837	.121	9.613	.700			
	T 4	.806	.119	9.221	.650			
Execution Area	C 4	.808	Fix		.653	.742	.945	.908
	C 5	.716	.111	8.662	.513			
	S 2	.821	.102	10.403	.675			
	S 3	.763	.102	9.416	.583			
	S 4	.767	.109	9.469	.588			
	S 5	.817	.106	10.331	.668			
Satisfaction	1	.788	Fix		.621	.712	.832	.802
	3	.789	.140	9.658	.622			
Measurement model Fitness	(initial model) $\chi 2$=398.829(p=.000, df=265), CMIN/DF=1.505 GFI=.808, AGFI=.765, CFI=.941, NFI=.844, IFI=.942, TLI=.933 RMR=.036, RMSEA=.064 (final model) $\chi 2$=320.790(p=.000, df=220), CMIN/DF=1.458 GFI=.827, AGFI=.783, CFI=.953, NFI=.865, IFI=.953, TLI=.946 RMR=.035, RMSEA=.061							
Ref1) S.E: Standard Error, Ref2) SMC: Squared Multiple Correlations, Ref3) AVE : Average Variance Extracted, Ref5) C.R: Construct Reliability								

Discriminant Validity Analysis

The method proposed by Fornell and Larcker (1981) was used to test discriminant validity (Fornell and Larcker, 1981). As a result, the determination coefficient (square of the correlation coefficient) of some variables exceeded the AVE value, so discriminant validity was not secured, as shown in Table 4.

Table 4: Discrimination validity of the measurement model

Variables	Curriculum	Quality of education	Knowledge area	Execution area	Satisfaction
Curriculum	**.679**				
Quality of education	.615	**.746**			
Knowledge area	.503	.536	**.729**		
Execution area	.508	.458	.721	**.742**	
Satisfaction	.803	.796	.767	.667	**.712**

Note: The diagonal bold letter shows AVE value.

Another method of testing discriminant validity is to compare the χ^2 values between the non-constrained model and the constrained model. Comparing χ^2 between the non-constrained

model and the constrained model, when df=1, the constrained model of curriculum and satisfaction was =37.703 and the constrained model of quality of education and satisfaction was =39.644, as shown in Table 5. It can therefore be said that discriminant validity is secured (Woo, 2014).

Table 5: Comparison of non-constrained and constrained models

Classification	**Variables**	**χ^2**	**df**	**$\triangle\chi^2$/df**
Unconstrained model		320.790	220	
Constrained model	Curriculum ↔ Satisfaction	358.493	221	37.703 / 1
	Quality of education ↔ Satisfaction	360.434	221	39.644 / 1

Test of Hypothesis

In order to verify this hypothesis, a structural model analysis was undertaken using AMOS 22. Table 6 presents the estimation result of the structural equation model. Hypotheses H1, H2, and H3 were all partially accepted. The path model is shown in Figure 4.

Table 6: Results of hypothesis test

Path analysis			**Coefficient**	**CR**	**P-value**	**Results**
Curriculum	→	Knowledge Area	.350	2.652	.008	Accept
	→	Execution Area	.229	1.962	.050	Reject
	→	Satisfaction	.370	3.121	.002	Accept
Quality of education	→	Knowledge Area	.458	3.372	***	Accept
	→	Execution Area	-.010	-.084	.933	Reject
	→	Satisfaction	.322	2.700	.007	Accept
Knowledge area	→	Execution Area	.694	5.363	***	Accept
	→	Satisfaction	.331	2.130	.033	Accept
Execution area	→	Satisfaction	.055	.384	.701	Reject

Note: CR is critical ratio.

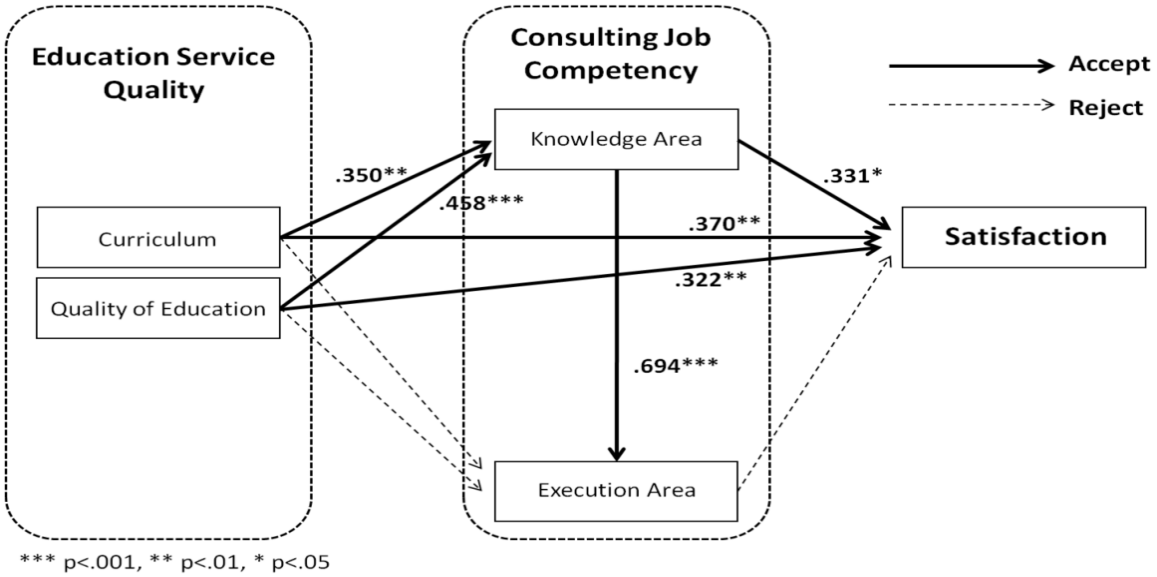

Figure 4. Path coefficient analysis

Mediating Effect Analysis

The structural model analysis was conducted by using Bootstrap of AMOS 22 in order to verify the mediating effect of consulting job competency in relation to education service quality and satisfaction. As a result of analysing the mediating effect of consulting job competency between education service quality and satisfaction, it was verified that the mediating effect of consulting job competency was significant (Table 7), and hypothesis H4 was accepted (Baron & Kenny, 1986).

Table 7: Result of mediating effect analysis

Hypothesis	**path**	**Mediating effect**	**p-value**	**Results**
Educational service quality	Curriculum → Job competency → Satisfaction	.142	0.022	Accept
	Quality of education→ Job competency → Satisfaction	.168	0.025	Accept

Conclusion

As the size of the economy of Korea grows, the consulting market has been expanded significantly. However, domestic consulting firms are not able to compare their competitiveness due to lack of scale, human resources, information and R&D, compared with foreign consulting firms. Consulting Professional Graduate Schools have been

established to solve these problems, and they have played a pioneering role in leading the development of the consulting industry by training numerous consultants for their original purpose. While there has been considerable research into the impact of consultants' consulting job competency on consulting performance, there was a lack of research on the preceding variables that enhanced consulting competency. In this study of the service quality of consulting education in the Consulting Professional Graduate School affecting consulting job competency, education service quality had a positive effect on the knowledge area of consulting job competency, but did not have a significant effect on the execution area. This is thought to be because the education service offered by the Consulting Professional Graduate Schools is biased toward theory and knowledge transfer, and thus cannot foster the ability to carry out actual consulting. This indicates that Consulting Professional Graduate Schools should provide education service in the process of teaching consultants. This study would ideally have been conducted nationwide in Consulting Professional Graduate Schools; however, due to a lack of time and resources, the survey was conducted for students and graduates of just one Consulting Professional Graduate School. Therefore, there are limitations in this research that may cause problems with generalisation and differences in perspective. Further research could ameliorate these issues.

Acknowledgement

This research was financially supported by Hansung University.

REFERENCES

Baron, RM. & Kenny, DA. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6):1173.

Carman, JM. (1990). Consumer perceptions of service quality: an assessment of T. Journal of Retailing, 66(1): 33.

Fornell, C. & Larcker, DF. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1):39-50.

http://www.hannarae.net/books/brand.php?ptype=view&prdcode=1409260012&catcode=121012&page=1&catcode=121012&grp=&brand=&orderby=viewcnt%20desc&searchopt=&searchkey=

Jeon, SY. (2013). The influence of character of adult learners and educational institution on participation in lifelong education: Mediator effect of participation motivation and learning satisfaction. Dept. of Education Graduate School, Dong-A University Busan, Korea. Available from: http://www.riss.kr/link?id=T13259594

Kang, S. & Choi, KH. (2008). Empirical Comparison of Measurement Methods for Educational Service Quality. Journal of the Korean Data and Information Science Society, 19(3): 801-9.

Kim, YH. (2002). Effects of service quality factors in university education on the students' satisfaction and subsequent behaviors. Graduate School of Business Administration, Chosun University. Available from: http://www.riss.kr/link?id=T8976703

Lee, JE., Suh, CJ. & Kim, SC. (2010). Building a competency model for consultants: Comparison of the consultant's competency specialized in small business and large business using AHP method. Korea Business Review, academic papers collection:253-74. Available from: http://www.riss.kr/link?id=A105029984

Lee, YK., Jang, BJ. & Park, YK. (2002). The Effects of University's Environments on Overall Service Quality, Service Value, and Student Satisfaction in Undergraduate Higher Education. Asia Marketing Journal, 4(1): 77-100. Available from: http://www.riss.kr/link?id=A100089335

McClelland, DC. (1973). Testing for competence rather than for " intelligence". American Psychologist, 28(1):1.

Parasuraman, A., Zeithaml, VA. & Berry, LL. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4): 41-50.

Park, JH. (1998). An Empirical Study on the Perceived Quality Factors & Satisfaction Increasing of Foreign Guests for Promoting International Competition Power of Hotels in Korea. The Korean J of International Management Research, 11(2):340. Available from: http://www.riss.kr/link?id=E687842

Shin, HJ. & Min, HR. (2009). Effects of students' majors on the relationship between perceived learning experiences and course satisfaction of undergraduate students. Korean Journal of Educational Research, 47(3): 49-72. Available from: http://www.riss.kr/link?id=A104844792

Woo, JP. (2014). The Concept and Understanding Structural Equation Models. Seoul: Hannarae Publishing Co. p. 175. (ISBN 978-89-5566-124-8 94310)

Yoon, SH. (2008). A Study on the Impact of Consultant's and Project Manager's Competencies on Performance of Business Consulting. Ph. M. Dissertation: 68-71. Available from: http://www.riss.kr/link?id=T11670220