

Construction and Empirical Study of Teaching Quality Assessment System of E-commerce Practice in Independent Colleges

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Abstract: Considering that the teaching quality assessment system of e-commerce practice in partial independent colleges is deficient or outdated and is thus unsuitable for the development of e-commerce major in the new era, or that such system is applicable only for theoretical courses instead of teaching quality assessment, a teaching quality assessment system of e-commerce practice in partial independent colleges is established based on SERVQUAL model. With Zhujiang College, South China Agricultural University as an example, an empirical study is conducted using IBM SPSS Statistics23 for data analysis, showing that this quality assessment system is capable of objectively assessing and comparing corresponding teaching quality, and reflecting problems in relevant facilities construction and teaching activities, the settling down of which are conducive to enhancing the students' employment competitiveness and the colleges' comprehensive strengths.

1. Introduction

As an important part of China's higher education system, independent colleges are new type of institutions of higher education run by the joint social capital of public colleges and universities in accordance with the private mechanism, with the goals of meeting the needs of social and economic development of local and service areas as well as the development of grass-roots units, and cultivating applied and compound talents with strong practical ability and practical operation ability. Since its emergence in 1999, independent colleges have been developed rapidly. According to the latest statistics of the Ministry of Education in August 2018, there are 265 independent colleges in China by Ministry of Education of the People's Republic of China's Calculation(2018) . From the enrollment major in 2018, 84 of the 265 independent colleges have set up e-commerce major at undergraduate level and 13 have set up e-commerce major at specialized level. Each independent college has its own characteristics of running a school and majors. Although the aims of training e-commerce talents are different, such as the development and construction of e-commerce system, logistics management, network marketing, website operation management, business English and so on, students are encouraged to take advantage of the on-campus training base and off-campus cooperative enterprises to carry out e-commerce related activities such as innovation, entrepreneurship and creativity to better enhance their own application skills and professional knowledge.

After a study conducted by the project team in more than ten independent colleges with e-commerce majors, including the South China Institute of Software Engineering .GU, Zhujiang College of South China Agricultural University, and Nanfang College of Sun Yat-sen University, it is found that most of them are lack of quality evaluation system or have old quality evaluation systems due to their own system and characteristics of running schools, which is not suitable for the development of majors in the new era, or the quality evaluation system is only applicable to the theoretical classroom instead of the evaluation of the quality of practical teaching. In terms of theoretical research, academic circles have increasingly enriched the practical teaching of applied undergraduate colleges, but there are few documents with high relevance to the quality evaluation

system for e-commerce practice teaching in independent colleges, and there are some shortcomings. For example, Wei Yan(Wei Yan, 2012)constructed the evaluation index system of practical teaching quality of e-commerce major from three aspects: professional teachers, teaching management and students. However, there is no systematic theoretical support and no empirical analysis. The final evaluation effect is also difficult to ensure its scientific nature. Li Zhang(Li Zhang, 2015) analyzed some problems in the evaluation system of practical teaching of e-commerce major, put forward the evaluation system of one person, one project and one post, and gave an example of the evaluation system of online shop art practice teaching. However, there is no commonness in this assessment method, and a complete evaluation system of e-commerce practice teaching quality has not been established. Yiping Li、Liuying Deng and Lvyuan Zheng(Yiping Li, Liuying Deng, Lvyuan Zheng, 2013)combined the training orientation of e-commerce talents in independent colleges with the students' ability requirements. He constructed a three-tier practical teaching system for e-commerce major from the professional courses, comprehensive practical training courses and enterprise cooperation courses, which is embedded in the personnel training program for e-commerce major. But for the above three courses, there is no mention of the construction of quality evaluation system for practical teaching.

It is thus clear that the study on the quality evaluation system for e-commerce practice teaching in independent colleges is still in its infancy in theory and practice, which has greatly hindered the scientific guidance of independent colleges in e-commerce practice teaching facilities, as well as the development of teaching activities, and it is difficult to objectively evaluate and compare the quality of practical teaching. Therefore, the establishment of a scientific and reasonable quality evaluation system for e-commerce practice teaching in independent colleges is conducive to solving the current problems existing in the practice teaching of e-commerce major, and is one of the key points to ensure the quality of practice teaching.

2. Construction of quality evaluation system for e-commerce practice teaching in independent colleges

2.1 Selection Criteria of Quality Evaluation Indexes

This study is made based on PZB's the gap model of service quality and SERVQUAL scale. SERVQUAL theory is a new service quality evaluation system proposed in the service industry based on total quality management (TQM) theory, with the core of "the gap model of service quality", that is, the quality of service depends on the degree of difference between the service level perceived by the user and the service level expectation by the user (also known as the "expectation-awareness" model). Mohammadbagher Gorji and Shiva Sargolzaee (Mohammadbagher Gorji, Shiva Sargolzaee, 2011) point out that user expectation are a prerequisite for quality service, and the key to providing quality service is to exceed user expectations.

Xuejing Qi(Xuejing Qi, 2014)conclude that SERVQUAL model has good reliability and validity as well as powerful diagnostic function of service quality. It is considered to be the most typical method for evaluating various kinds of service quality. In this study, the quality of practical teaching services is defined as the degree to which a university meets the explicit or potential needs of students in the process of providing practical teaching services and the results achieved, depending on the students' contrast between the expectations of the teaching service and their actual perception. When the SERVQUAL model is applied to the evaluation of the quality of practical teaching, 22 indexes in the five dimensions of tangibility, reliability, sensitivity, assurance and empathy can be moderately modified according to their specific characteristics. Through the calculation of the formula "SERVQUAL value = actual perception - expectation value" and the analysis of the later data, it can be an effective evaluation tool for the quality of e-commerce practice teaching. The results show the existing problems and that by improving these problems, the gap between students' expectation and perception can be narrowed and the quality of practice teaching can be improved.

2.2 Index Construction of Quality Evaluation Index System

In order to reflect the quality of practical teaching comprehensively and objectively, the evaluation scale of e-commerce practical teaching was established by consulting with the teachers, students, teaching supervisors, educational administrators and the persons in charge of school-enterprise cooperation, reading the relevant literature, and combining with the actual situations of the independent colleges. The variables of the scale included 22 secondary indexes in the 5 dimensions of tangibility (teachers and facilities in practical teaching), reliability (ability to effectively perform promised practical teaching tasks), sensitivity (willingness of teachers to help students solve problems on their own initiative), assurance (sense of security in practical teaching environment and trust in teachers themselves) and empathy (teachers' attention and concern to students), as shown in Table 1.

Table 1: Quality evaluation indexes of e-commerce practice teaching in independent colleges based on SERVQUAL model.

Dimensions	Definitions	Secondary indexes
Tangibility a	The tangible teaching equipment and facilities, environmental arrangements and teacher resources observed and perceived by students.	a1. The laboratory equipment in the college is advanced and complete, which can meet the needs. a2. The laboratory in the college is well maintained, and there are professional software such as e-commerce practice, ERP, SCM, etc., and the software and hardware can be updated in time. a3. The practical content of the course is practical and can train e-commerce talents. a4. Off-campus practice bases provide a large space for practice and diverse positions. a5. There are strong teacher resources, teaching staff with intermediate or higher professional titles in the background of information technology, business management and management, or mentors with practical experience in enterprises.
Reliability b	Ability to effectively perform promised practical teaching tasks.	b1. The talent training goal of practical teaching can be close to the job requirements of the enterprise, and the students have strong employment competitiveness. b2. The practical teaching tasks promised to students every semester can be completed on time. b3. Teachers have specific records of students' performance in practical teaching activities. b4. Fairly provide students with practical learning opportunities.
Sensitivity c	When students encounter problems in practical teaching, teachers have the willingness to help students solve problems and the ability to provide them with teaching in a timely manner.	c1. Teachers can take the initiative and timely help when students encounter difficulties in practice. c2. Arrange the right amount of practical tasks, carefully check, explain or demonstrate the operation. c3. Teachers can receive feedback from students on the content of practical teaching. c4. There is a reasonable performance appraisal system.
Assurance d	Teacher's ability to make students trust through knowledge and moral cultivation.	d1. The teacher's personal morality is worthy of student trust. d2. Teachers have rich teaching experience and high level of professional knowledge. d3. E-commerce practice teaching resources are rich and convenient (such as operating video lectures, etc.). d4. Students have a sense of security in the context of practical teaching.
Empathy e	Teachers' attention and concern to students.	e1. Understand the practical teaching content that students are most interested in. e2. Teachers understand the weakest practice of students. e3. Understand students' ability to absorb professional knowledge and adjust the progress of practical teaching. e4. Teachers patiently discuss with students in practical learning. e5. Practice teaching forms are diverse (examples: research and inspection, visits, hands-on exercises, simulation practices, working on regular post, etc.).

The practice teaching evaluation form was designed in the form of Likert's seven-level scale, and the quality of practical teaching was evaluated from 22 indicators in the 5 dimensions of tangibility, reliability, sensitivity, assurance and empathy. It is composed of 2 subscales, the expectation scale, i.e. "the extent to which a major with a high level of practical teaching should be consistent with the characteristics of the table based on past experience" and the actual perception scale, i.e. "the extent to which the practical teaching actually provided by the major meets the characteristics of the table". Each question of the two scales is set to 7 grades, 1 indicating strongly inconsistent, 2 indicating very inconsistent, 3 indicating inconsistent, 4 indicating general, 5 indicating consistent, 6 indicating very consistent, 7 indicating strongly consistent.

3. An empirical study of quality evaluation system for e-commerce practice teaching in independent colleges

3.1 Selection of Sample Colleges

Zhujiang College of South China Agricultural University is an independent college approved by the Ministry of Education in 2006 to implement undergraduate level education. The college is committed to building an application-oriented university with a high level of internationalization based on regional economic development in Guangdong, focusing on finance and management, characterized by modern applied art, and multi-disciplinary coordinated development. At present, the college divides the teaching quality into 9 evaluation indicators as pre-class preparation, teaching attitude, proficiency, application, organization and teaching (without secondary indexes), and each index has a score of 9.50 totalling 95.0. This evaluation system is used for evaluating the teaching quality of all the courses in the college. The main body of the evaluation is the students and the teaching supervisors. Generally, the quality of teaching is evaluated in the 15th week of each semester.

The evaluation system has been used for 8 years since 2010. It is undeniable that the evaluation system has a certain effect on the quantitative evaluation of classroom teaching quality and the improvement of teaching quality. However, there are some problems in the actual teaching process. For example, the teaching quality is evaluated in the 15th week of each semester, and the courses offered before the 15th week (including course design) can be evaluated, but the practice teaching courses offered in the 17th week (practice teaching week) are not evaluated. Moreover, for practical teaching courses, it is far from enough to focus on the teaching work of teachers, because the level of practical teaching quality is also related to factors such as hardware and software facilities, teaching content, and talent training mode. In addition, it is more comprehensive to take into account the opinions of peer teachers, former graduates who have contacted social posts, and even enterprises that have signed a school-enterprise cooperation agreement when formulating the teaching quality evaluation system.

3.2 Exploratory Study

In order to make the follow-up investigation smoothly and the data more scientific and accurate, an exploratory study should be carried out before the formal study to confirm whether the respondent has doubts or understanding deviations on the expression of each question, and to determine whether the reliability of the questionnaire meets the requirements of the follow-up survey.

(1) Distribution of questionnaires

To ensure the authenticity of the answers and the recovery rate of the questionnaires, the project team designed and published the questionnaires on the questionnaire website-Questionnaire Star. A total of 30 questionnaires were distributed to sophomores, professional teachers, teaching supervisors, relevant educational administrators and some persons in charge of school-enterprise cooperation in Zhujiang College of South China Agricultural University from April 17 to April 21, 2007. The questionnaire URL was sent under the computer room 2-304, office or mobile phone WeChat terminals, and the sample data were collected in the form of on-site guidance for teachers

and students. A total of 30 valid questionnaires were collected and the recovery rate was 100%.

(2) Test of questionnaires

Teachers and students were instructed to fill out the questionnaire at the scene. Through interviews and consultations, teachers and students expressed their understanding of the information expressed in the questionnaire during the course of filling out. They felt that the questionnaire was clear about each question. Reliability analysis was performed using IBM SPSS Statistics 23. There are four common methods for reliability analysis: the test-retest reliability method, the alternate-form reliability method, the split-half reliability method, and the Cronbach Alpha coefficient method. In this paper, the reliability analysis of the scale was carried out by using the Cronbach Alpha (Cronbach α) coefficient method. The value of the Cronbach Alpha coefficient is between 0 and 1. If the Alpha coefficient does not exceed 0.6, it is generally considered that the internal consistency reliability is insufficient; when the Alpha coefficient reaches 0.7-0.8, it indicates that the scale has considerable reliability, and when the Alpha coefficient reaches 0.8-0.9, it shows that the reliability of the scale is very good. By analyzing the expectation values of 30 scales, it was found the Cronbach Alpha coefficient was 0.989. By analyzing the actual perception value of 30 scales, it was found the Cronbach Alpha coefficient was 0.988, which indicated that the reliability of the scale was very good and the next formal study could be carried out.

3.3 Formal Study

(1) Sample size

The sample size of the formal study was calculated according to the following formula:

$$\text{Sample} = ((\text{confidence level} * \text{population standard deviation}) / \text{allowable error})^2$$

The total sample size was calculated by substituting the confidence level of 95%, the allowable error of 5%, the population standard deviation of 0.8998 (pre-test questionnaire result) to the formula: 292 copies.

(2) Sample and sample description

The questionnaires (<https://sojump.com/jq/13393335.aspx>) were distributed in Zhujiang College of South China Agricultural University in two time periods. The first time period was May 4 - May 11, 2017 when the graduates of the senior year went back to prepare for graduation, and the previous graduates also participated in the alumni association. Therefore, the survey can be carried out better. The questionnaires were mainly distributed to senior students of e-commerce majors, graduates in 2011 and 2012. The second time period was June 19-June 26, 2017 when the freshmen, sophomores and juniors of E-commerce major had completed the second semester of the training course from 2016 to 2017, and had some knowledge of the practical teaching of this major. A total of 350 questionnaires were sent out, and the sample data were collected in the form of on-the-spot instructions by downloading the questionnaire website in the computer room, office or mobile phone. A total of 334 copies were collected. The recovery rate was 95.43%. After checking, there were 7 invalid and 327 valid questionnaires, with an effective rate of 97.90%.

(3) Reliability analysis

After a questionnaire survey on the quality of practical teaching of e-commerce in Zhujiang College of South China Agricultural University, the overall reliability analysis of 327 scales was performed by means of IBM SPSS Statistics23 using the Cronbach Alpha (Cronbach α) coefficient method. The value of the Cronbach Alpha coefficient is between 0 and 1, and the larger the result, the better the correlation of each question. Through analysis, it was concluded that the Cronbach Alpha coefficient was 0.980, indicating that the scale had high reliability and excellent internal consistency.

(4) Project mean analysis and paired sample test

Microsoft Excel 2010 was used to calculate the mean value of each question in 327 valid questionnaires. The gap average value of each question was calculated according to the formula of SERVQUAL model (gap value = actual perception value - expectation value). Then IBM SPSS Statistics 23 was used to perform a dependent sample T test on the expectation and actual perception values of each question, to test whether there was a significant difference between the

mean value of the expectation and actual perception values, as shown in Table 2 below.

Table 2: Expectation-Perception gap mean statistical analysis.

Questions	N	Expectation mean	Actual Perception mean	Gap	t	df	Sig. (bilateral)
a1	327	5.599388	3.926606	-1.67278	20.975	326	.000
a2	327	5.51682	3.914373	-1.60245	20.741	326	.000
a3	327	5.853211	4.284404	-1.56881	21.192	326	.000
a4	327	5.642202	3.844037	-1.79817	20.544	326	.000
a5	327	5.678899	4.11315	-1.56575	20.016	326	.000
b1	327	5.672783	4.140673	-1.53211	20.197	326	.000
b2	327	5.785933	4.657492	-1.12844	15.875	326	.000
b3	327	5.755352	4.611621	-1.14373	16.248	326	.000
b4	327	5.82263	4.360856	-1.46177	19.367	326	.000
c1	327	5.865443	4.746177	-1.11927	16.24	326	.000
c2	327	5.840979	4.82263	-1.01835	15.606	326	.000
c3	327	5.844037	4.688073	-1.15596	16.317	326	.000
c4	327	5.896024	4.785933	-1.11009	15.773	326	.000
d1	327	6.04893	5.116208	-0.93272	14.711	326	.000
d2	327	6.015291	4.859327	-1.15596	17.654	326	.000
d3	327	5.902141	4.553517	-1.34862	17.875	326	.000
d4	327	5.902141	4.733945	-1.1682	16.417	326	.000
e1	327	5.83792	4.397554	-1.44037	19.286	326	.000
e2	327	5.798165	4.333333	-1.46483	20.186	326	.000
e3	327	5.862385	4.593272	-1.26911	17.201	326	.000
e4	327	5.801223	4.385321	-1.4159	18.696	326	.000
e5	327	5.847095	4.302752	-1.54434	20.669	326	.000

Table 2 shows that the difference between the expectation value-average value and the actual perception value--the mean value is negative, indicating that the quality of practice teaching fails to meet expectations, and there are different degrees of gap. The absolute difference of the 7 questions a1, a2, a3, a4, a5, b1 and e5 is greater than 1.5, indicating that the quality of practical teaching on these questions needs to be improved. In addition, the dependent sample T test was performed on the score of the expectation and actual perception values of each question. Assuming that there was no difference between the mean values of expectation value and the actual perception value, the confidence interval was 95%, indicating that the probability of accepting the mean values of the expectation and actual perception values was in the normal distribution, which was less than 0.05 that was not within this range and belonged to the rejection domain. The Sig. (bilateral) result by IBM SPSS Statistics 23 data analysis was .000, Sig. (bilateral) was significant, and df indicated the degree of freedom, was N-1, that is, 327-1=326. Sig. (bilateral) <0.05, indicating that the hypothesis is not true, there is a significant difference between the expectation value of each question and the overall mean of the actual perception value.

(5) Overall project correlation analysis

A matrix was obtained by using Pearson correlation analysis on the actual perception value scale with the help of IBM SPSS Statistics 23, as shown in Table 3. The matrix had two triangular regions that were mirror images of each other, i.e. the correlation coefficient between the variables X and Y was equal to the correlation coefficient between the variables Y and X^[6]. The correlation coefficient r was used to measure the correlation between variables that valued between [-1, +1]. $r > 0$ indicates a positive correlation, $r < 0$ indicates a negative correlation, $0.8 \leq |r| \leq 1$ indicates a high correlation, $0.5 \leq |r| \leq 0.8$ indicates a moderate correlation, and $0.3 \leq |r| \leq 0.5$ indicates a low correlation, $|r| \leq 0.3$ indicates a weak correlation.

Table 3 shows that the correlation coefficient of the question in each dimension is between 0.4 and 0.8, that is, there are different degrees of correlation between the questions. In the same dimension, the correlation coefficients of a1 and a2; b2 and b3, b3 and b4; c1 and c2, c3, c4; d1 and d2, d2 and d3, d3 and d4; e1 and e2, e3, e4, e5 are all above 0.7, indicating that there is a great correlation among these questions in the same dimension. At the same time, in different dimensions,

b1 and a3, a5; c2 and b3, d2; c4 and d1; d2 and e3; d4 and d3, e1; e1 and d4 have correlation coefficients exceeding 0.7, indicating that in the practical teaching process, the production and solution of each problem will affect the effect of other teaching aspects. Therefore, it is helpful to improve the overall quality of practical teaching of e-commerce major to clarify the relationship between various aspects and their related problems.

4. Recommendations of the empirical study

According to the 327 scales, the SERVQUAL model was used to analyze the quality of e-commerce practical teaching of Zhujiang College of South China Agricultural University. The results showed that 22 secondary indexes in the five dimensions of tangibility, reliability, sensitivity, assurance and empathy had different degrees of problems. Among them, the problems in the 5 secondary indicators (a1, a2, a3, a4, a5) of the tangibility dimension are particularly prominent, followed by "the talent training goal of practical teaching can be close to the job requirements of the enterprise, and the students have strong employment competitiveness." (b1) of the reliability dimension, and "practice teaching forms are diverse" (e5) of the empathy dimension. These three dimensions have more prominent practical teaching problems in the above aspects, and the improvement urgency is stronger. It is recommended to give priority to improvement. The recommendations are as follows.

1) Increase investment, improve the equipment and facilities of the laboratory, such as upgrading computers and servers, and do a good job in the daily maintenance of the laboratory, timely update software and hardware, especially many teaching software related to e-commerce, such as ERP, CRM, e-commerce platform, etc., can be upgraded or purchased as appropriate. Optimize the structure of practical teaching teachers, introduce enterprise engineers or "double-qualified" teachers, revise the teaching syllabus of practical courses, and increase practical content that meets the needs of society. Make full use of social resources, actively carry out school-enterprise cooperation, highlight the characteristics of e-commerce specialization in the direction of applying computer technology, and increase the number of e-commerce posts based on computer technology, such as e-commerce website planning and editing, website design, development, website art design and other positions.

2) Intensify the recommendation of key teachers to the off-campus internship training base for the summer job training, conduct in-depth enterprise research, revise the training program of practical teaching according to the needs of enterprises for the knowledge structure and ability structure of talents and their own school-running characteristics, so as to make the new training program closer to the post requirements of enterprises, and improve the employment competitiveness of students.

3) On the basis of establishing a relatively stable practice and training base, more practical teaching forms, such as investigation, visits, on-line practice, simulation practice, working on regular post, etc., can be added to the campus and off-campus practice teaching, and various professional skills certification or professional competitions can be launched jointly with enterprises to mobilize students' learning initiative.

In addition, Pearson correlation analysis shows that solving the practical teaching problems in the above aspects (a1, a2, a3, a4, a5, b1, e5) is beneficial to the improvement of other related teaching problems (e1, e2, e3, e4). Therefore, great attention should be paid to improving the quality of practical teaching.

5. Conclusions

In this paper, based on SERVQUAL model, the evaluation system of e-commerce practice teaching quality in independent colleges was constructed to ensure the scientificity of the quality evaluation index system in guiding practice teaching activities. From the point of view of construction method, the gap between expectation-mean and actual perception-mean was analyzed, and the dependent sample T test was used to test whether there was significant difference between

the means of the expectation and actual perception values, and Pearson correlation was used to analyze the questions. This method quantified the quality of e-commerce practice teaching and ensured the correlation between 22 indicators in 5 dimensions. In practical terms, the application of the study results to the Zhujiang College of South China Agricultural University provided a scientific reference for evaluating the quality of e-commerce practice teaching in the independent college, which is conducive to the horizontal comparison and longitudinal study of the practical teaching level, and the improvement of comprehensive strength of the independent colleges.

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Table 3 Pearson correlation analysis of each question

	a1	a2	a3	a4	a5	b1	b2	b3	b4	c1	c2	c3	c4	d1	d2	d3	d4	e1	e2	e3	e4	e5
a1	1	.742**	.601**	.559**	.629**	.631**	.502**	.459**	.484**	.461**	.459**	.489**	.460**	.440**	.468**	.477**	.508**	.520**	.534**	.513**	.562**	.495**
a2	.742**	1	.585**	.631**	.637**	.652**	.530**	.482**	.540**	.519**	.538**	.550**	.519**	.457**	.525**	.545**	.583**	.595**	.589**	.518**	.599**	.556**
a3	.601**	.585**	1	.650**	.673**	.730**	.581**	.579**	.572**	.578**	.584**	.531**	.573**	.569**	.584**	.530**	.532**	.574**	.590**	.584**	.565**	.530**
a4	.559**	.631**	.650**	1	.670**	.652**	.595**	.548**	.664**	.551**	.577**	.508**	.550**	.557**	.557**	.551**	.512**	.561**	.597**	.579**	.607**	.573**
a5	.629**	.637**	.673**	.670**	1	.759**	.634**	.593**	.588**	.574**	.606**	.560**	.579**	.581**	.668**	.537**	.543**	.607**	.596**	.642**	.613**	.569**
b1	.631**	.652**	.730**	.652**	.759**	1	.653**	.643**	.633**	.595**	.626**	.602**	.621**	.595**	.647**	.628**	.605**	.648**	.660**	.675**	.678**	.621**
b2	.502**	.530**	.581**	.595**	.634**	.653**	1	.724**	.684**	.620**	.649**	.601**	.624**	.669**	.644**	.573**	.564**	.585**	.618**	.610**	.562**	.629**
b3	.459**	.482**	.579**	.548**	.593**	.643**	.724**	1	.704**	.693**	.712**	.666**	.659**	.628**	.614**	.613**	.608**	.604**	.656**	.611**	.616**	.603**
b4	.484**	.540**	.572**	.664**	.588**	.633**	.684**	.704**	1	.635**	.697**	.593**	.618**	.591**	.639**	.611**	.576**	.595**	.624**	.599**	.603**	.630**
c1	.461**	.519**	.578**	.551**	.574**	.595**	.620**	.693**	.635**	1	.757**	.705**	.708**	.646**	.627**	.629**	.651**	.653**	.663**	.623**	.643**	.609**
c2	.459**	.538**	.584**	.577**	.606**	.626**	.649**	.712**	.697**	.757**	1	.734**	.735**	.690**	.736**	.679**	.682**	.687**	.668**	.648**	.660**	.608**
c3	.489**	.550**	.531**	.508**	.560**	.602**	.601**	.666**	.593**	.705**	.734**	1	.744**	.629**	.654**	.600**	.650**	.650**	.655**	.655**	.656**	.567**
c4	.460**	.519**	.573**	.550**	.579**	.621**	.624**	.659**	.618**	.708**	.735**	.744**	1	.708**	.699**	.660**	.640**	.672**	.699**	.695**	.651**	.593**
d1	.440**	.457**	.569**	.557**	.581**	.595**	.669**	.628**	.591**	.646**	.690**	.629**	.708**	1	.767**	.645**	.679**	.610**	.640**	.683**	.628**	.621**
d2	.468**	.525**	.584**	.557**	.668**	.647**	.644**	.614**	.639**	.627**	.736**	.654**	.699**	.767**	1	.720**	.689**	.679**	.686**	.701**	.648**	.636**
d3	.477**	.545**	.530**	.551**	.537**	.628**	.573**	.613**	.611**	.629**	.679**	.600**	.660**	.645**	.720**	1	.704**	.672**	.686**	.635**	.658**	.650**
d4	.508**	.583**	.532**	.512**	.543**	.605**	.564**	.608**	.576**	.651**	.682**	.650**	.640**	.679**	.689**	.704**	1	.700**	.676**	.622**	.664**	.611**
e1	.520**	.595**	.574**	.561**	.607**	.648**	.585**	.604**	.595**	.653**	.687**	.650**	.672**	.610**	.679**	.672**	.700**	1	.779**	.710**	.718**	.701**
e2	.534**	.589**	.590**	.597**	.596**	.660**	.618**	.656**	.624**	.663**	.668**	.655**	.699**	.640**	.686**	.686**	.676**	.779**	1	.784**	.775**	.712**
e3	.513**	.518**	.584**	.579**	.642**	.675**	.610**	.611**	.599**	.623**	.648**	.655**	.695**	.683**	.701**	.635**	.622**	.710**	.784**	1	.761**	.694**
e4	.562**	.599**	.565**	.607**	.613**	.678**	.562**	.616**	.603**	.643**	.660**	.656**	.651**	.628**	.648**	.658**	.664**	.718**	.775**	.761**	1	.718**
e5	.495**	.556**	.530**	.573**	.569**	.621**	.629**	.603**	.630**	.609**	.608**	.567**	.593**	.621**	.636**	.650**	.611**	.701**	.712**	.694**	.718**	1