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Theoretical Path Model Construction of Management Curriculum Design

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Abstract: The Curriculum Design of the Management is a systematic engineering. To analyze and sum up the literatures concerned, this study built 12 first grade indicators and 25 secondary indicators which influenced this course. According to the factor analysis method dimensionally reduction, four factors as teachers' quality, curriculum quality, evaluation and student satisfaction have been obtained. It has learned from the customers' value theory and designed a model constructed from a customer satisfaction perspective. By using the SmartPls2.0 software, this article build up a theoretical PLS path model of management curriculum design .

Key words: Management science, curriculum design, PLS path model, customer satisfaction, student satisfaction

INTRODUCTION

In recent years, scholars are paying more and more attention to the theoretical discussions of management science. Li (2012) discussed the development tendency of the management science and was inspired that the interaction between practice and theory led to the new development in management discipline. He hoped that Chinese scholars would pay more attention to the features of management science characteristic of China. Frances *et al.* (2011) pointed out in *The World of Management* that management science should keep the tension to face controversial issues, which can help management science researchers reconsider the value of the current researches and the new trend of future researches.

It can be seen that management science, ever since its separation in 1997 from economics and technology as an independent subject, although has made great development and gratifying achievements, still faces many problems and challenges. The issue of curriculum design which has become the most urgency and realistic one among the many problems and challenges that management science are facing, needs to be discussed scientifically from different points of view and with different methods. The thesis aims to construct path model of management curriculum design from the perspective of customer satisfaction, by learning from the theory of customer value and adopting the PLS path

model, in the hope that it can provide theoretical support and practical guidance for the multidimensional relationships and path dependence and other relationships among the following four factors: the teachers' quality requirements, curriculum quality elements, course evaluation and student satisfaction of management science.

THEORETICAL FOUNDATIONS

Zeithaml (1988) pointed out that customer value was the prerequisite factor to promote customer satisfaction and thus to realize the customer loyalty. Tse and Wilton (1988) defined customer satisfaction as the evaluation of the gap between the real values of the product or service bought by customer and the previously expected value, according to which, if the perceived real quality of the product or service outweighs the customer's expectations, the customer will feel satisfied. The greater the gap is, the more satisfactory the customers are; in the same sense, the smaller the gap is, the less satisfactory the customers are.

Classroom teaching is a typical type of service, whose important theoretical perspective of evaluation is customer satisfaction. According to "the evaluation continuum model for different types of products" proposed by Zeithaml *et al.* (2012), classroom teaching is a service difficult to evaluate. At present, the evaluation of teaching performance which depends heavily on

theories of customer value, introduces the concept of student satisfaction which refers to students' feelings of satisfaction with their university experiences when their expectations are satisfied or more than satisfied. Others pointed out student satisfaction refers to the students' emotions such as being attracted by or being proud of their school or feeling towards their school positively. Wiers-Jenssen *et al.* (2002) divided student satisfaction into several types by applying the method of binary logistic regression analysis. And through measuring the strength and weight of academic quality, education quality and the course structure, they concluded that student satisfaction and students' evaluation of teaching are overlapping to a certain extent.

The measurement of student satisfaction includes direct measurement and measurement by comparing the gap between the importance and satisfaction. There are mainly three measurement tools which are CSS (College Student Survey) offered in 1993 by Los Angeles, higher education research institutes, the university of California and SSI (Student Satisfaction Inventory) designed by the United States in 2000 for different groups of students and Student Satisfaction Approach put forward by the British professor Lee Harvey in 1997 which is a cycle mode of comprehensive feedbacks and actions. The study on student satisfaction started comparatively earlier at abroad. Terenzini and Pascarella (1980) researched the number of the teaching staff which he believed affected the students' tendency to drop out. Napoli and Wortman (1998) carried out college students' satisfaction measurement from the psychological angle and found that college life events, self-esteem, social communication ability, social support and happiness were closely related to the degree of students' satisfaction with academics. Aldemir and Gulcan (2004) studied the important factors influencing student satisfaction from the perspective of freshman education, teaching material and gender and so on.

To sum up, studies on student satisfaction both at home and at abroad are mainly on the school level which reflects the university students' overall satisfaction with their universities while the specific studies on student satisfaction with the curriculum design of certain disciplines are few.

RESEARCH METHODS

Questionnaire handing-out and collection: This study takes the undergraduates of management school in S university for our survey. At present, management school of S university has a total of 13 undergraduate majors, with two doctoral programs of first-level disciplines: Business management and management science and

engineering; it also has seven graduate programs covering three first-grade disciplines: Business management, management science and engineering, library, intelligence and file management. Its discipline setting and talent cultivation system is quite complete and it is typical of the curriculum design for research and management disciplines. In sample selection, we chose as many different representative majors, types of courses and grades as possible. Among junior students, the focus of our study is mainly on the evaluation of management basic courses; while among the senior students, the focus is on the evaluation of management specialty course. On the selection of course, we chose those related to management, such as technology innovation and management it and organization, service management, marketing management, tourism quality management, leisure development, electronic management, human resource management, logistics information management and so on.

Considering the students' familiarity with the course to be evaluated, we chose to hand out the questionnaire at late December 2012. The investigators handed out and collected the questionnaire in class in person or entrusted a teacher to do so. No matter what way to choose to fill in the questionnaire, we made clear the following instructions to the students and the teachers. First, the questionnaire is completely anonymous, thus it's not necessary to fill in the names of the course, of the teacher or of the student. Second, the researchers picked out those courses concerning management for the choice of the students, who then can evaluate any of the courses they are engaged in. This can dispel the teachers' and students' worries. Third, the evaluation should be truthful which is the greatest support for our work. In our study, 308 copies of questionnaires were distributed and 255 valid questionnaires were collected, 82.8% of the questionnaires being effective, meeting requirements of social survey.

Design of variables: According to the early relative studies, we selected the factors of teachers' attitude, teachers' attractiveness, teachers' language, teachers' proficiency, teaching means, textbook construction and teaching performance, evaluation of teachers, interaction between teachers and students, teaching methods, whether recommended courses and students' approval level as primary indexes and subdivided them into a number of secondary indexes, respectively marked by attitu1, attitu2, attitu3, attra1, attra2, langu, prof1, prof2, teach1, teach2, textbook1, textbook2, perf1, perf2, eval1, eval2, eval3, intera1, intera2, intera3, method1, method2, method3, reco and satis.

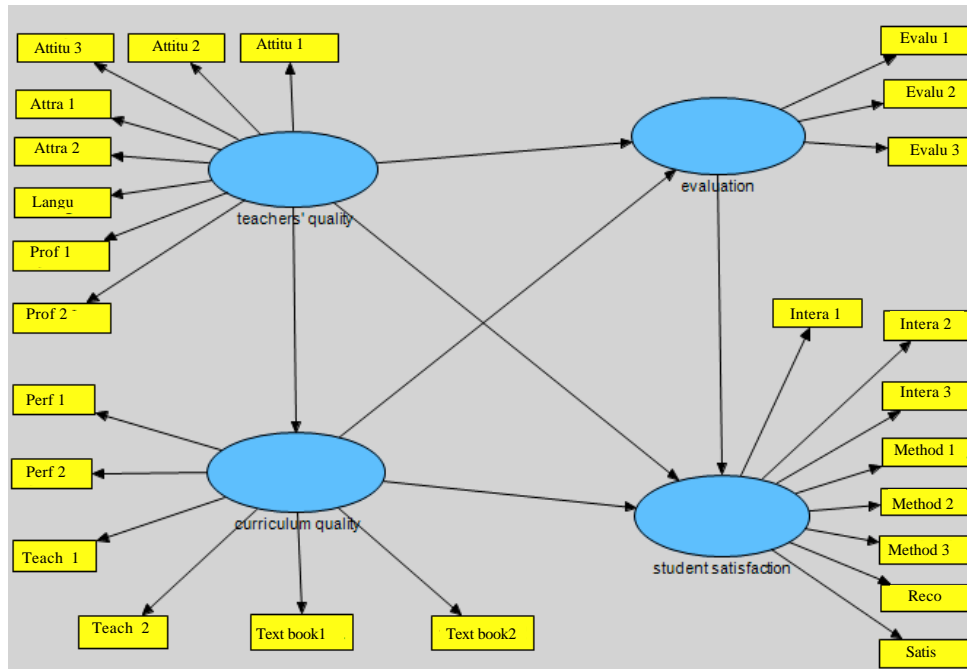


Fig. 1: Theoretical path model of curriculum design of the management

Analysis method: By a factor analysis of the secondary indicators in 255 valid questionnaires, dimension reduction is achieved. Based on factor analysis and related literature review, this study constructed theory path model for curriculum design of the management, in which the latent variables and observed variables correspond to the four main factors and 25 secondary indexes, respectively. The model includes two submodels: One is the measurement model, also called external model which is used to describe the relationship between the model's observed variables and the latent variables; the second is the structure model, also called internal model which is used to describe the relationship between the model's latent variables.

FACTOR ANALYSIS, PLS MODEL CONSTRUCTION AND THE PROPOSITIONS

Factor analysis: Through the factor analysis of the secondary indicators in 255 valid questionnaires by applying the statistical analysis software SPSS17.0, the study achieved dimension reduction. The output as is seen in Table 1 shows that KMO value reaches 0.952 and at the same time the chi-square approximation inspected by Bartlett sphere is 5154.07 and the corresponding p value is close to zero, indicating that the original variable is very suitable for factor analysis. According to

the general standard that the characteristic root is greater than 1, this research extracts four main factors marked by F1, F2 and F3 and F4, whose explanation degree of the total variance were, respectively 53.399, 8.222, 4.999 and 4.004% and whose cumulative explanation degree is up to 70.625% and they are quite able to represent most of the information of the original variables.

By a Maximum variance orthogonal rotation of the main factor, we got the Rotated Component Matrix, as is shown in Table 2, from which it can be seen that F1 has high load capacity in attitu1, attitu2, attitu3, attra1, attra2, langu, prof1 prof2. Since these indexes mainly reflect the quality of teachers, F1 is named teachers' quality factor. It can also be seen that F2 has high load capacity in teach1, teach2, textbook1, textbook2, perf1, perf2 which mainly reflect the quality of the course and F2 therefore is named curriculum quality factor. From the table, we can still see that F3 has high load capacity in intera1, intera2, intera3, method1, method2, method3, reco, satis which mainly reflect student satisfaction, so F3 is named student satisfaction factor. At last, F4 has high load capacity in evalu1 evalu2 evalu3 and since these indicators mainly reflect teachers' evaluation, F4 is named evaluation factor.

heoretical path model construction: Based on factor analysis and related literature review, this study constructed theory path model for Curriculum Design of the Management, as is shown in Fig. 1 in which the latent

Table 1: KMO and Bartlett Inspection

Sufficiency of KMO sampling test	0.952
Chi-square approximation	5154.07
Degree of freedom	300
p value	0

Table 2: Rotated component matrix

Index system	Main factors			
	F1	F2	F3	F4
Attitu1	0.801			
Attitu2	0.819			
Attitu3	0.84			
Attral	0.775			
Attral2	0.747			
Langu	0.672			
Prof1	0.761			
Prof2	0.688			
Teach1		0.639		
Teach2		0.636		
Textbook1		0.795		
Textbook2		0.776		
Perf1		0.651		
Perf2		0.652		
Interal1			0.494	
Intera2			0.443	
Iintera3			0.489	
Method1			0.572	
Method2			0.479	
Method3			0.533	
Reco			0.821	
Satis			0.77	
Evalu1				0.797
Evalu2				0.795
Evalu3				0.45

variables and observed variables correspond to the four main factors and 25 secondary indexes, respectively.

Propositions: Based on the above theoretical analysis and on the theoretical path model of Curriculum Design of the Management in figure 1, this study put forward the following propositions:

- **Propositions 1:** The latent variables of teachers' quality and the corresponding observed variables are positively related
- **Propositions 2:** The latent variables of curriculum quality and the corresponding observed variables are positively related
- **Propositions 3:** The latent variables of evaluation and the corresponding observed variables are positively related
- **Propositions 4:** The latent variables of student satisfaction and the corresponding observed variables are positively related
- **Propositions 5:** The latent variables of teachers' quality and those of curriculum quality, evaluation and student satisfaction are positively related
- **Propositions 6:** The latent variables of curriculum quality and those of evaluation, student satisfaction are positively related

- **Propositions 7:** The latent variables of evaluation and the latent variables of student satisfaction are positively relate.

CONCLUSION AND PROSPECT

From the above analysis, we can see that Curriculum Design of Management is a systematic project in that there is path dependence among the quality of teachers, curriculum quality, evaluation and student satisfaction. Firstly, teachers' quality has direct impact on curriculum quality and curriculum quality on evaluation and evaluation on students' satisfaction. Secondly, teachers' quality has both direct effect and indirect effect on evaluation and on students' satisfaction while curriculum quality has both direct effect and indirect effect on student satisfaction. From the effects of different paths it can be seen that the general structure influence coefficient is greater than the direct influence coefficient. The former has a clear superimposed effect, in which the quality of teachers plays a particularly important role.

From the perspective of customer satisfaction, in the curriculum design of management, we should not only objectively strengthen the construction of textbooks and improve the modernization of teaching auxiliary facilities and strengthen, by formulating standardized criteria, the system construction in standardizing examination study and in streamlining the checking of examination study but also actively give play to the teacher's subjective initiative, strengthen the teacher training and give teachers more support. We should plan systematically in teachers' academic attitude, character shaping, professional knowledge and teaching skills, presentation skills, language style and so on. Although this study constructed PLS path model of Curriculum Design of the Technology Management it didn't analyze the differences in the curriculum design of various primary and secondary disciplines of management. Besides, the model does not include the factors of individual students such as age, gender, grade, social practice experience and so on, nor does it include the factors of individual teachers such as age, professional title, education, social service experience and so on which shows direction for further studies with different methods in the future.

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