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Research and Practice on International Service Outsourcing Talents Cultivation

Hong Bao^a, Tao Peng^b, Jun Zhang^c, Chang Liu^d

^a*Institute of Information Technology, Beijing Union University, Beijing, China*
^{b,c,d}*School of Information, Beijing Union University, Beijing, China*

Abstract

Based on “National Service Outsourcing Talents Cultivating Model Innovation Experimental Zone” project, research and practice on international service outsourcing talents cultivation are carried out in School of Information of Beijing Union University. The standards of service outsourcing talents are studied and curriculum reform is implemented in accordance with the standards. Furthermore, other various forms of outsourcing talents cultivation measures are put forward, such as cross-cultural education program, teachers exchange with foreign universities and bilingual teaching, customized talents cultivation cooperation with international famous enterprises and so on. Through a series of reform measures, students not only have the expertise of the information service outsourcing talents, but also have broad international perspective, good cross-cultural communication ability, excellent teamwork skills, and career aptitude.

Index Terms: service outsourcing; talents cultivation; innovation experimental zone; internationalization

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1. Introduction

Service outsourcing refers to the economic activity that the enterprise separates the fundamental, common, and non-core IT business and IT business process from its original value chain, and outsources the business to professional service providers outside the enterprise. In brief, it is a manner to reduce costs of enterprise, transfer risk, and enhance the core competitiveness. In the various forms of service outsourcing, offshore outsourcing is the most important one in many developed countries in Europe and America due to its absolute cost advantage. From the end of 1980s, developed countries started to outsource information technology to India, China and other developing countries in large scale, namely Information Technology Outsourcing (ITO). From the end of 20th century, developed countries started to outsource gradually a variety of business process services based on information technology (such as finance, customer care, human resources, procurement, marketing, etc.) to developing countries, namely Business Process Outsourcing (BPO) ^[1]. Offshore service outsourcing (ITO and

* Corresponding author.

E-mail address: baohong@buu.edu.cn; xztzhangjun@buu.edu.cn

BPO) can not only create more employment opportunities and improve China's import and export trade, but also promote the development of software industry and talents cultivation of information technology.

Service outsourcing industry needs a large number of talents who are familiar with business process standards and the global economy management. Therefore it is necessary to cultivate talents who have a broad internationalized vision, the excellent professional skill, the ability of cross-cultural understanding and the ability for teamwork to meet the requirement of service outsourcing enterprises^[2]. Based on National "Service Outsourcing Talents Cultivating Model Innovation Experimental Zone" project, research and practice on international service outsourcing talents cultivation are carried out in School of Information of Beijing Union University and a lot of achievements have been obtained.

2. Exploration and practice on international service outsourcing talents cultivation

2.1 Study on the Standards of Service Outsourcing Talents

In many traditional universities of China, computer courses are updated slowly and some of them are less practical. The lack of talent standards results that the service outsourcing talents cultivation is out of touch with business needs, and thus seriously affects the rapid development of service outsourcing industry. Therefore, it is necessary to constitute standards of service outsourcing talent^[3].

SFIA (The Skills Framework for the Information Age) is a mandatory standard for software talents that engaged in outsourcing service industry. SFIA is proposed by the United Kingdom, improved by Ireland and approved by the European Union. According to SFIA, the software talents are divided into seven levels and a total of 78 knowledge structures. SFIA will become the mandatory standard for BPO enterprises in EU since 2011, i.e. companies to undertake European BPO projects must have the well-trained workforce that meet SFIA standards^[4]. In accordance with the regulations of the Government of Japan, Japanese outsourcing business employees need to have the skills required by ITSS (IT Skill Standard). According to ITSS, the software talents are divided into 11 species and each species has 7 levels respectively, which defines the level of talents from job types, reach index, skill areas and skill proficiency.

There is no unified talent standard for information service industry in China. In order to promote information service talent cultivating, the related industry management department is working with Tsinghua University and other institutes to develop standards for information service industry. "Registration Outsourcing Professional Certificate" is carried out by National Outsourcing Certification Industry Management Center. We set up "National Software and Information Service Outsourcing Talent Incubator Base" together with Software and Integrated Circuit Promotion Center of Ministry of Industry and Information Technology and several internationally renowned IT companies. Based on the related criteria of Ministry of Industry and Information Technology and SFIA of EU and ITSS of Japan, investigation and analysis of the service outsourcing industry are carried out and talent skill standards that are suitable to the actual circumstances of China are being under development. Some of the research achievements have been applied to our professional cultivation program.

2.2 Curriculum System Reform based on Service Outsourcing Talent Standard

Scientific curriculum system is very important for talents cultivating. In terms of knowledge structure, ability training and career aptitude, curriculum systems of computer discipline in many Chinese Universities and software institutes are not reasonable for cultivating talents required by international service outsourcing talent standards.

To construct Information Service discipline, we try to combine several disciplines together, such as Computer Science and Technology, Service Science, Management and Engineering (SSME), and Management Science^[5-7]. In the existing Computer Science and Technology discipline, the pathway of service outsourcing is set and the

talents cultivation mode and the curriculum system are adjusted according to the study of talent standards. According to Computer Curriculum 2005 report proposed by ACM and IEEE [8], the problem space condition of discipline Information Service is near to that of discipline Information Technology and Information System. Therefore the curriculum system of discipline Information Service is designed according to the key courses of these two disciplines. Furthermore, the knowledge space of Information Service discipline is also determined by enterprise service business processes and knowledge requirements of information service personnel. The knowledge space of Information Service discipline is shown as Fig.1. From the Fig.1, it runs from Theory, Principles, and Innovation on the left, to Application, Deployment, and Configuration on the right in the horizontal direction. It runs from Computer Hardware and Architecture at the bottom, to organizational Issues and Information Systems at the top in the vertical direction. The horizontal and vertical dimensions should be considered together. The above framework was used to sketch out the conceptual territory occupied by each of the five computing disciplines and the shaded portion in Fig. 1 represents the Information Service engineering specialty. Finally, the core courses of Information Service discipline are framed on the basis of this knowledge space [9-10].

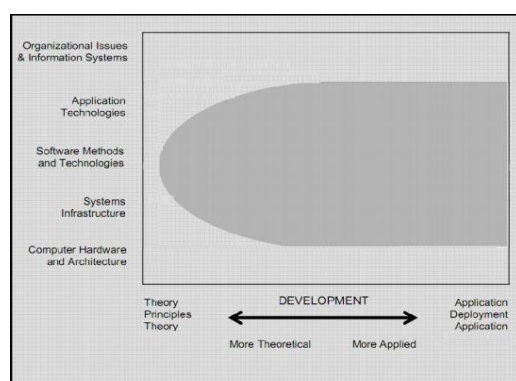


Fig 1. Knowledge space of information service discipline.

Among the core courses of Information Service discipline, there are eight courses involved in information technology, and the other eight courses are related to information service, service science or management. The eight courses related to information technology are listed as follows: Programming and Problem Solving, Data Structure and Algorithm, Operating System, Computer Constitution and System Integration, Service-Oriented Architecture, Information Network and Web Technology, Database and Information Management Technology, and Software Engineering. The other eight courses related to information service, service science or management are listed as follows: Service Human Resource Management, Service Organization Theory, Information Service Literacy and Career Internship, Information Service English/Japanese, Information Service Project Management, Electronic Business and Electronic Government Affairs, Enterprise Resource Planning and Integration, and Business Process Outsourcing Principle.

The four-year teaching-learning activities can be divided into three phases, i.e. Phase I, foundation building and broadened classified cultivation (The first 2 years), Phase II, diverged cultivation and workplace experiencing (Year 3), Phase III, practicing in enterprises and job planning (Year 4).

During Phase I, i.e. the first 2 years, teaching-learning activities focus on the building of basic theory foundation and improvement of English language skill and comprehensive aptitude. Courses of the two years include basic courses of Information Technology, public courses of language and culture, public courses of humanities and social science, public courses of natural science.

During Phase II, i.e. year 3, cultivating activities focus on diverged cultivation and workplace experiencing. Service outsourcing talents cultivating are divided into three categories, i.e. ITO, BPO and Management of Service Outsourcing Enterprises. According to the different business requirements, a variety of professional courses are provided. Experts and technical staff of service outsourcing industry are invited to give lectures for students. A certain proportion of bilingual courses are delivered to cultivate cross-cultural understanding and communication skills.

During Phase III, i.e. year 4, cultivating activities focus on practicing in enterprises and job planning. In the final year, most courses and practices such as Information Service Project Management, Software Developing and Testing, Business Workflow Project Practicing, Final Project, and Internship are carried out in enterprises.

The curriculum system has been implemented for the undergraduates of 2010 Computer Science and Technology and has been recognized by many cooperation enterprises^[11]. It is helpful and useful to cultivate service outsourcing talents with multiple professional aptitudes.

2.3 Other measures for International Education

- Implement cross-cultural education program. By providing political, economic, historical, social and cultural courses about the services outsourcing countries, and funding some outstanding students to foreign universities, students' ability of cross-cultural understanding and communication can be enhanced greatly.
- Create an English teaching-learning environment. A specialty course is conducted in English teaching now. A professor of Anglia Ruskin University from UK is delivering lectures of "Computer Network" in English to the students of 2008 Experimental Class during the Autumn Semester of 2010. Assignments and examination of the course are also required to be completed in English. Two courses, i.e. "Database Principles and Applications" and "Operating System", are taught by bilingual manner. The lecturers are the young key teachers who had been abroad as academic scholars.
- Carry out customized talent cultivating with enterprises. VanceInfo Technologies Inc. is the first China software development outsourcer listed on the New York Stock Exchange, and ranks number one among Chinese-based offshore software development service providers for the North American and European markets. We signed a cooperation agreement on service outsourcing talents cultivating about specialty construction, credit exchange, and teacher training. Customized talent cultivating with enterprises is carried out to enhance the effectiveness of cultivation

3. Conclusion

On the basis of "National Service Outsourcing Talents Cultivation Model Innovation Experimental Zone" project, we undertake the research and practice on international service outsourcing talents cultivation in School of Information of Beijing Union University. We study the standards of service outsourcing talents and undertake curriculum reform according to the standards. In addition, a variety of measures for international education are put forward, such as cross-cultural education program, creation of an English teaching-learning environment, customized talents cultivation cooperation with international famous enterprises and so on. Through all the measures, the cultivation of international service outsourcing talents are explored and practiced. The service outsourcing talents not only have the specialty skills, but also have broad international vision, good cross-cultural communication ability, excellent teamwork spirit, and professional quality.

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