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The dilemma and future of property valuation education in China

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ABSTRACT

Foreign fund investments in China create demand for real estate appraisal for foreign investment projects, and they expect to have quality valuation services. The majority of real estate appraisers in China are not familiar with the needs and requirements of foreign clients. Apart from technical capabilities, they are not good at writing English appraisal reports. It is difficult for them to compete with international appraisers. The core of the problems lies in real estate education in China. This paper aims to study the current condition and the gap in real estate education between China and selected foreign countries, and subsequently recommend what need to be done to raise the level of Chinese real estate education and hence appraisers to meet the expectations of international clients. The study finds that while raising the level of Chinese real estate appraisal education to match the selected countries is possible, there is a long way to go.

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Internationalisation; property valuation; education; professional bodies

1. Introduction

Real estate is a very important vehicle in the investment market. The demand for real estate appraisal has been increasing in various countries, including China. Against the backdrop of internationalisation, the emerging real estate appraisal market in China draws concern of foreign real estate consulting firms. Following the opening of the Chinese banking market in December 2006, foreign banks can operate Chinese currency (RMB) business and their demand for real estate appraisal has been increasing yearly. It does not take long before major international real estate consulting firms like DTZ (DTZ, 2015), Jones Lang LaSalle (JLL, 2015) and CB Richard Ellis (CBRE, 2015), set up appraisal branches in Shanghai, Beijing and other big cities.

Different foreign real estate consulting agencies have different ways to conduct appraisal business in China. For example, Savills runs real estate appraisal business by hiring local qualified staffs who have also obtained overseas appraiser qualifications, whilst DTZ does the business through its qualified branches in the Mainland China. Anecdotal evidence obtained by the first author shows that some foreign firms simply do the jobs without qualified local appraisal staff.[1]

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Despite the competition from foreign real estate consulting firms who can provide quality services to the foreign investors, the domestic real estate appraisal industry and professional staff have been growing rapidly in the past few decades due to huge demand for valuation services from domestic clients. According to the real estate appraisal credit system database in China, as at July 2015 there are 47,165 registered real estate appraisers and 4444 real estate appraisal institutions.

While they are able to serve the domestic clients, they are less competitive in terms of capabilities and qualifications, and can barely undertake real estate appraisal jobs from international clients. The current real estate education does not touch upon the needs and concerns of overseas investors. Another issue is low proficiency in English which restrains them from writing appraisal reports that are understood by foreign customers. Besides capabilities and qualifications, there are confidence issues that may be partly due to the distrust/mistrust attitude of foreign banks and investors towards local appraisal companies. It is an open secret that some foreign banks and investors would rather hire appraisers from Hong Kong or abroad to assess their investments in China (Chan, 2004).

It can be seen that, on the one hand, foreign real estate investment in China creates substantial demand for appraisal services; but on the other hand, few local appraisal companies and appraisers are awarded appraisal business by foreign investors. The dilemma raises questions about real estate appraisal education and training in China. What qualities and capabilities do international appraisers possess? How can China educate and train comparable internationally recognised real estate appraisers? What role should be played by professional bodies in appraiser training? What should universities do to help students become internationally oriented to meet the demands of their future employers?

The Chinese real estate market was revitalised after the introduction of the "open door policy" in the 1980s. Real estate is not a traditional area of study. Accordingly, real estate education is mainly focused on building construction, development, and economics which are the traditional areas of study at universities. As such, it is a fact that real estate education in China is not at par with those offered by the overseas counterparts. This paper does not aim to test any hypothesis to prove this fact, or whether foreign investors have less confidence in Chinese real estate appraiser. Instead, it aims to identify and analyse the problems of current real estate appraisal education and training in China in relation the four questions raised in the paragraph above, and suggest solutions for improvement.

The research methodology includes reviewing real estate education literature in China and other countries to find out the gaps and identify the essential areas and quality of teaching for an internationally recognised real estate program, in particular in the area of real estate appraisal. A survey of real estate academics and industry professionals will be carried out to collect data for analysis. The questionnaire is designed and focused on the findings in literature review in Section 2. Recommendations for solving the problems will be provided before the conclusion.

This pioneer research paper in the subject area and has the limitation that while the survey covers respondents from the majority of universities offering a real estate program, the non-academic respondents are drawn from three major cities only. In addition, students are not included in this survey. As such, the findings are not exhaustive and can only be regarded as preliminary. A more comprehensive research should be separately carried out when resources are available. In this paper, the terms "real estate" and "property", "appraisal" and "valuation" are used interchangeably.

2. Literature review

2.1. Domestic literature

In the 1990s, some Chinese scholars began to study real estate higher education in the United States, England, Germany, Sweden, Australia, Hong Kong and Taiwan, as well as other countries and regions (Liu, 1999; Zhang, 1999). After year 2000, more Chinese scholars attempted to critically analyse domestic real estate education (Qian, Yang, & Qi, 2007; Wang, 2006; Wu, 2008).

In China, all university programs/disciplines offered must be listed in a catalogue published by the Ministry of Education (MOE). Real estate appraisal is not a traditional discipline and is regarded as a minor discipline under property management. Accordingly, real estate appraisal education research is given little attention. Most of the research focuses on broader real estate education and training (Chu & Wang, 2006; Liu, 2010; Su & Chen, 2004; Wang & Huang, 2011; Zhang & Chu, 2009).

In regard to research in real estate appraisal, the study is often of a generic nature. For example, Chen (2002) points out that competent appraisal professionals are needed to satisfy customers, and in terms of business operation, there is a big gap between domestic and foreign appraisal institutions. Ding (2008) suggests to strengthen self-discipline and ethics of appraisers, and establish closer relationship between universities and professional appraisal institute (AIs). The second point was shared by Cheng (2010). Wu (2009) proposes appropriate training requirements for appraisers; and Tang, Wu, and Liang (2013) put forward some comprehensive suggestions on how to enhance the capability of appraisers, such as commitment to the occupation, advanced work routine, systematic management platform, and so on.

To sum up, the domestic literature mainly focuses on course design and teaching methods (Xu, 2010; Zheng & Yao, 2013). Few researchers study the challenges to the real estate appraisal education in China in the context of internationalisation. There is no study in the causes of relatively low competence of Chinese real estate appraisers and how to raise their level to provide quality valuation to all clients, including foreign investors. It inspires the writing of this paper to fill the gap.

2.2. Overseas literature

Research in real estate education has been increasing in the past two decades, with research areas extended to wider areas, such as real estate curriculum development (Baxter, 2007; Newell & Eves, 2000), real estate education and profession (Avdiev, 2000; Blake & Susilawati, 2009; Page, 2008), education needs for property professionals (Boyd, 2000), opportunities and challenges for real estate academics (Newell, 2007), property education paradigms (Fischer, 2000), property education quality (Newell & Acheampong, 2003; Newell & Susilawati, 2010), and effective use of new technology (Cornish, Reed, & Wilkinson, 2009).

After 2000, some scholars begin to pay close attention to critical analysis of real estate education, such as the body of knowledge for real estate education (Black & Rabianski, 2003), student evaluation (Manning, 2002) and value-added role of property academics based on the problem-solving learning (Manning & Roulac, 2001). Other researchers analyse property education from the perspective of a country or region. For example, Hefferan and Ross (2010) analyse the forces for change in property education and research in Australia. D' Arcy

and Taltavull (2009) analyse some perspectives and the development trend of real estate education in Europe in the past 10 years. All scholars mentioned above, except Manning, carry out research about the quality of property education from the aspect of real estate academics, without a full perspective of students.

Other property education researches include property curriculum development proposal (Susilawati & Armitage, 2011), a reflection of education methods and means (Boyd, 2010), online appraiser education (Martinez, 2004), combination of new technology and real estate education (Cornish et al., 2009), studio teaching method (Sintusingha & Wu, 2010) and blended learning (Poon, 2012). The above studies reflect new requirements for real estate appraisers to match the ever-changing external environment and development of science and technology.

The majority of researches that directly focus on real estate appraiser training are more from the perspective of expectations of students, demand of employers or accreditation by professional valuation bodies. Callanan and McCarthy (2003) surveyed property students on their perceptions of the property professions and their preferred area of employment. Industry employers were also surveyed to assess the theoretical and practical knowledge of recent graduates. Epley (2004), via a survey of some corporate real estate executives, finds that students/appraisers should have three critical skills: real estate market interpretation ability, the ability to analyse and deal with general tasks, as well as social skills to work with other personnel and the public. Boyd (2005) emphasises that a good knowledge base alone is inadequate for real estate appraisal professional education and that the ability to analyse and communicate are two essential outputs of real estate education.

Blake and Susilawati (2009) studied the preparedness of students to commence professional employment. They find that, in a valuation context, students need to develop a sense of independence and belief in their own abilities and should also have good report writing and communication skills. Poon, Hoxley, and Fuchs (2011) find that the top five knowledge fields rated by employers are valuation, property law, landlord and tenant law, professional practice and ethics, client care.

It is apparent that China has less studies in real estate education than other countries, and the limited scope of study cannot help identify the requirements of an internationally recognised program. In comparison, the areas of overseas research are more diverse and can provide the clue. They are listed in Table 1.

The various overseas studies in Table 1 can be grouped under (1) curriculum/teaching quality, (2) critical skill requirements of employers, and (3) accreditation by professional bodies. These three areas are directly related to the quality and standard of real estate education, and are thus deemed to be essential for an internationally recognised real estate

Table 1. Areas of overseas research in real estate education.

Real estate curriculum	Real estate education and profession
Education needs for property professionals	Opportunities and challenges for real estate academics
Property education paradigms	Property education quality
Effective use of technology in real estate education, such as online education, blended learning	Body of knowledge of real estate education
Student evaluation	Regional study of real estate education
Education methods and means	Student and employer expectations, professional body accreditation

program. The scope of these overseas studies provides the inspiration and guidance for the design of questionnaire for this study. More about this point is discussed in Section 4.

The literature review also finds that there is no study in the comparison of Chinese and overseas real estate education. It provides an opportunity of this study to fill the gap.

3. Current real estate appraisal education in China

As mentioned above, all disciplines of higher education in China are governed by the catalogue of undergraduate subjects published by the MOE. The first real estate management program emerged in the 1980s in some vocational colleges, and subsequently became a formal four-year program listed in the catalogue of undergraduate subjects (Discipline Code 1909) in 1993. By 1998, 114 universities offered real estate management undergraduate programs (Wang & Huang, 2011). There had been two major revisions of the undergraduate catalogue and subject directory. The third revision of the document was conducted and implemented in 1998, which replaced real estate management by engineering management. In other words, real estate education was officially scrapped from 1998.

In 2003, under the pressure of strong appeals from scholars and having regard to the rapid development of the real estate industry, the MOE approved the Beijing Normal University, Central University of Finance and Economics, as well as Chongqing University to reinstate real estate program as a beyond-the-catalogue discipline. The fourth revision the catalogue was eventually introduced in September 2012, permitting real estate development and management undergraduate program to be offered as a new program.

The latest revision indicates that the education officials realise the importance of real estate to the economy as well as the huge demand for real estate professionals. However, real estate appraisal never appears as an independent undergraduate program despite the fact that there is already a three-year real estate management and appraisal program in some higher vocational colleges for many years. Nevertheless, the formal re-admission of real estate program in the official catalogue is certainly a big step forward in real estate higher education.

According to the Online University Enrolment System (2014) website, before the catalogue revision in 2012, there were about 1200 universities and colleges in China. Among them, only 40 universities offered real estate undergraduate programs, accounting for 3.33% of the total. Furthermore, only eight of them are top universities with a "211" or "985" high-level education institution status.[2]

Generally speaking, the universities that offer real estate program are evenly located in the country. Amongst the 40 universities, 14 of them have finance and economic background and 11 of them have building and civil engineering background. Four are normal (teaching) universities and 11 are comprehensive universities. The diverse background of the universities results in the diversity of real estate curriculum echoing the finance and economic, building and civil engineering background of the relevant university.

This phenomenon is in stark contrast to the situation in Australia. Susilawati and Armitage (2011, p. 1) reported that in Australia,

> there are well developed synergies between the relevant professional bodies and the educational institutions. The strong nexus between the academic and the professional content is characterised by ongoing industry accreditation which nominates a range of outcomes which the academic programs must maintain across a range of specified metrics.

4. Problems and difficulties of real estate valuation education in China

In order to find out the current problems and difficulties in real estate appraisal education in China, an electronic survey of educators and practitioners in China was conducted from March 2014 to July 2015.

The findings from the literature review in Section 2.2 above show that curriculum/teaching quality, critical skill requirements of employers, and accreditation by professional bodies are the three essential areas for an internationally recognised real estate appraisal program. The questionnaire is thus designed to echo these three areas. There were altogether 26 questions in the questionnaire. The first three questions were about the background information of the respondents. The other 23 questions were about identifying the various problems and solutions in real estate education, with a focus on property valuation. Some questions, such as staffing and research capability issues, were aimed at getting views from academics only as they are experts in the relevant matters.

A total of 600 questionnaires were dispatched, including 260 to academics and 340 to the industry. The academic respondents were chosen from the participants who attended the annual meeting for "Higher Education of Real Estate and Engineering Management" in 2014. Almost all universities in China that offered real estate education programs had representatives attended the meeting. The respondents with other backgrounds were randomly picked from the real estate industry in Shanghai, Beijing and Chongqing. These big cities were chosen on the assumption that the survey response could provide an acceptable profile of real estate education in China.

The response is quite impressive that 517 sets of completed questions were received, with a response rate of 86.17%. About 46.62% of the respondents were from universities, 14.7% from real estate appraisal companies, 8.32% from financial institution, 3.29% from property professional bodies & government departments, 7.93% from real estate developers, 14.7% from real estate consultants and 4.45% from builders. About 34.62% of all respondents are certified valuers.

The questionnaires collected were statistically analysed by using MS EXCEL. Since this paper is not based on testing of hypothesis, only descriptive analysis was carried out. The feedbacks captured some significant views, reflecting the current status quo about real estate education in China as well as providing a meaningful reference for education and business sector. The results of the survey are discussed in the following sections.

4.1. Academic staffing issues

Following the expansion of higher education enrolment policy in China, colleges and universities have a huge demand for academics. There is an expectation that academics should have PhD or higher qualification. Some universities even require new academics to possess overseas doctorate degrees. The survey results in Figure 1 show that about 43% of the university respondents hold a PhD degree, whereas the number of respondents with PhD qualification in the private sector, such as appraisal companies and financial institutions only account for 2.6 and 7%, respectively.

Regarding the reasons for the shortage of teaching staff, the opinions from academics were fairly diverse. The three most frequently cited reasons are: comparatively lower pay

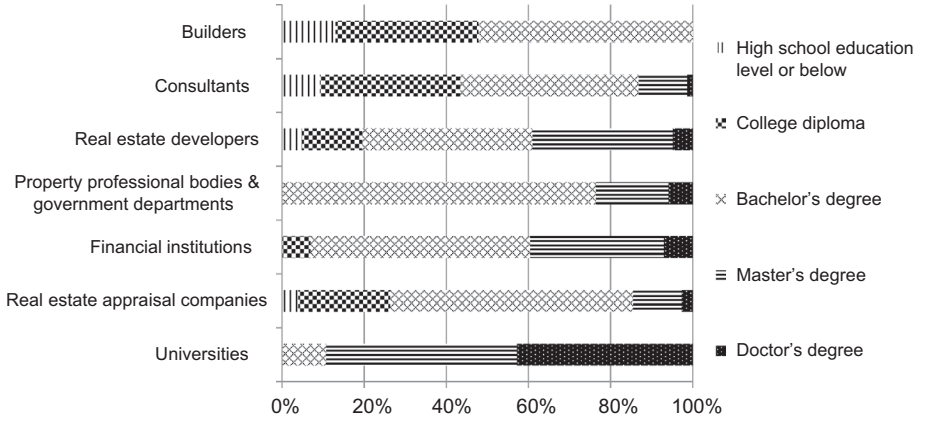

Figure 1. Education background of the respondents.

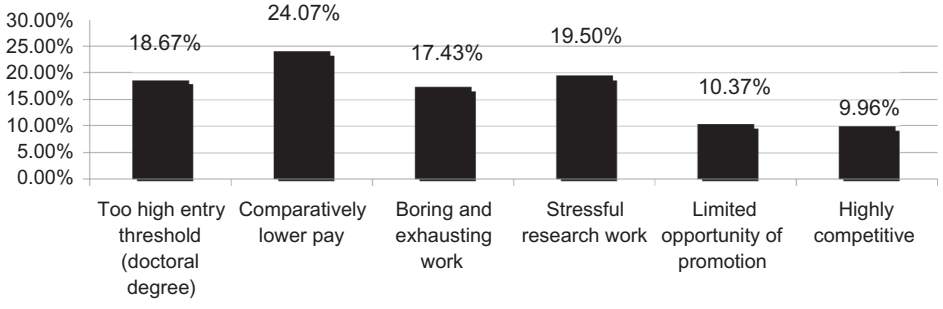

Figure 2. Reasons for the shortage of real estate academics (Survey result of 241 academics).

(24.07%), stressful research workload (19.50%) and entry qualification threshold being too high – such as a PhD degree (18.67%), see Figure 2.

In China, there are few universities offering doctoral real estate programs, not to mention program in the real estate appraisal field. Real estate graduates generally choose to work for private institutions because of higher pay, better promotion opportunity and no need to have PhD qualification. Therefore, very few graduates will choose to do PhD study. Accordingly, the supply of academic with a PhD degree in real estate is extremely limited.

4.2. Practical experience and research output of academics

It is desirable that real estate teaching staff should have practical industry experience and acceptable research ability. In some countries, real estate academics are expected to have years of industry experience and/or possess the membership of a professional body. The survey results show that about 61% of the 241 academic respondents believe the majority of real estate academics have no practical experiences, whilst about 24% believe that half of the academics have no practical experiences. The remaining 16% believe only a few academics have no practical experiences. This finding is in line with the result of an earlier survey by

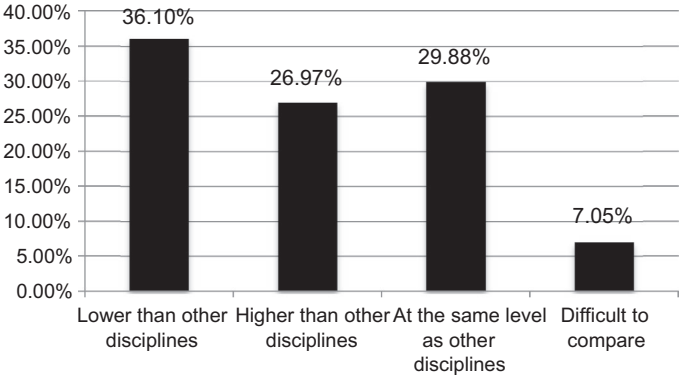

Figure 3. Level of real estate research (Survey result of 241 academics).

Wang and Huang (2011) that only around 10% of the real estate academics in China have industry experience or real estate related qualification certificate.

Like other countries, research output is very important for university ranking in China. Scientific research is the focus of many Chinese universities; and academics are encouraged to conduct research that would boost the scientific research reward. Since real estate is never a mainstream discipline in China, it receives little support from the funding authorities and research in this area is limited. It can be seen in Figure 3 that that about 36% of the academic respondents believe the level of real estate research is relatively lower than that of other fields; and only about 27% of them think the level of real estate research is higher.

The survey findings are echoed by the fact that only about .001% of the total amount of research funding granted between 2001 and 2013 by the National Natural Science Foundation and the National Social Science Foundation was related to real estate research. The topics of real estate research projects are mainly focused on real estate market, real estate bubbles, real estate development and real estate finance. None of them was related to real estate appraisal.

Regarding the reasons for the lower level of research capability of real estate academics, the responses include: less time engaged in research because of heavy teaching load (31%), less opportunities of relative research projects (20%), lack of hardware and software (18%), difficult to cooperate with or get support from enterprises (17%), lack of systematic research methods training (7%) and personal reasons such as not good at research or no interest (7%), see Figure 4.

4.3. Relationship with professional bodies

In other countries, professional appraisal associations and higher education institutions have close cooperation and frequent communication. For example, the Australian Property Institute (API) and the Royal Institution of Chartered Surveyors (RICS) have accreditation and partnership arrangements with universities to ensure property graduates meeting the expectation of the industry. This is not the case in China.

As mentioned before, the China Institute of Real Estate Appraisers and Agents (CIREA) is the professional body representing property professionals. Unlike the API or RICS, the main

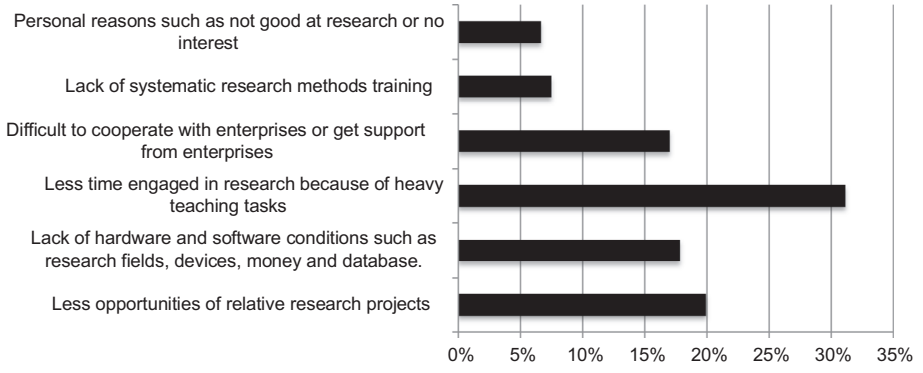

Figure 4. Possible reasons for lower level of research ability of Chinese real estate academics.

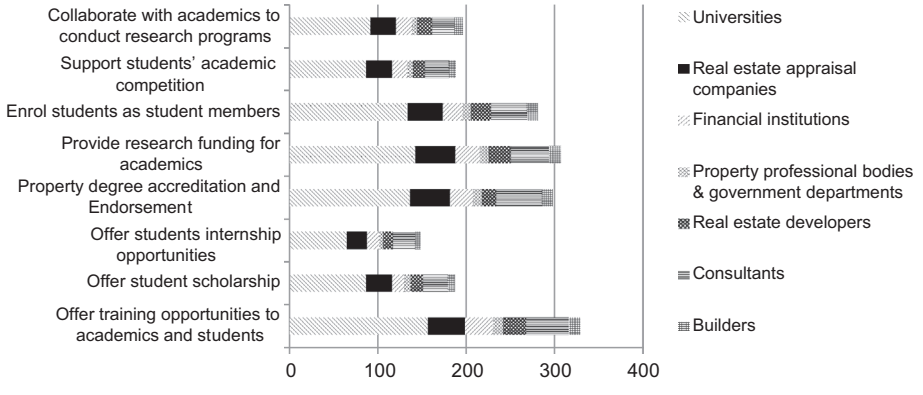

Figure 5. Ways for boosting closer link with real estate education sector.

functions of the CIREA are to conduct examination, registration and continuing education for real estate appraisers and agents. It is also responsible for reviewing the application for registration of real estate appraisal companies. People who want to become a real estate appraiser or agent in China must pass the national qualifying examination conducted by the CIREA.

When asked about the relationship between professional bodies and the universities, about 61% of all respondents consider that there is no contact or little contact between the real estate education sector and professional bodies. About 39% consider there is some contact or frequent contact. The majority of the academic respondents say "no contact"; whereas the majority of non-academic respondents say "little contact". It can be evident that there is a weak link between the real estate education sector and professional bodies.

Both academic and non-academic respondents think that there should be closer link between the two sectors. Over 97% of all respondents consider that professional bodies should have more roles to play in real estate education either through providing guidance or assistance to real estate education, or acting as an intermediary. The respondents also suggested ways as outlined in Figure 5 to strengthen the link.

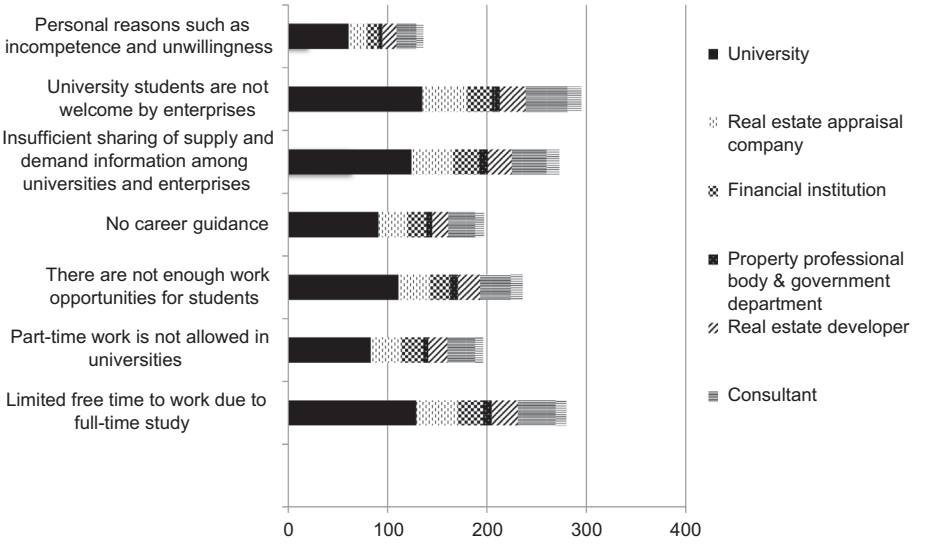

Figure 6. Reasons for limited industry exposure of students.

4.4. Industry exposure of students

The survey results in Figure 6 show that around 44% of the respondents think that real estate students do not have industry exposure or have little industry exposure to real estate enterprises. The other 55% think that students have some contact or frequently contact with the industry.

Regarding the limited industry exposure issue, the four main reasons chosen by the respondents include: students are not welcomed by enterprises, limited free time to work due to full-time study, insufficient sharing of supply and demand information among universities and enterprises, and limited work opportunities.

"Limited free time to work due to full-time study" is a typical phenomenon in China. Unlike other countries, most real estate programs in China only accept full-time students. Students have little opportunity to do part-time jobs, which makes it difficult for them to gain work experiences.

4.5. Economic analysis ability and soft skills of graduates

There have been complaints from employers that graduates do not process the necessary skills expected by the industry. The survey results in Figure 7 show that real estate graduates are expected to have skills in economic analysis, property software related computer skills, reading and drawing engineering plans, property valuation, bidding and contract management, marketing, using engineering instrument and equipment as well as financial analysis. The top three expected skills are economic analysis, property software related computer skills, reading and drawing engineering plans. Only about 20% of the respondents mentioned about GIS technology and big data management. It could be due to the fact that these knowledge fields are relatively new.

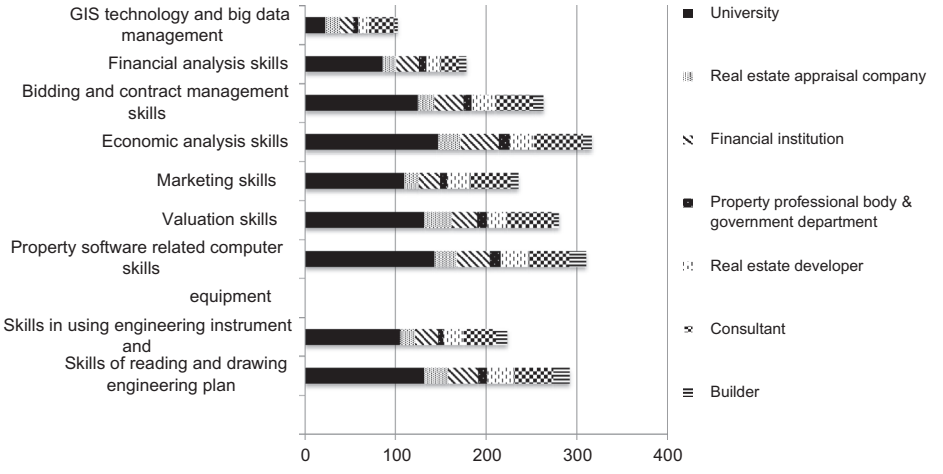

Figure 7. Expected technical capability of real estate graduates.

The top three technical capabilities that the respondents think students lacking are: financial analysis skills, property software related computer skills and economic analysis; with financial analysis skills being the highest rated one. Other deficient skills are in the areas of valuation, bidding and contract management, using engineering equipment, as well as reading and drawing engineering blueprint. The skill deficiency will be even wider in the future when the application of GIS and Big-Data becomes common and there is a shortage of competent academics in the relevant areas.

Regarding general competency of soft skills, the respondents think that students should possess skills in communication, problem analysing and solving problems, learning new knowledge, cooperation, innovation, executing and practicing. The top three soft skills that the respondents think students lack of include communication, analysing and solving problems, executing and cooperation capability, see Figure 8. The concerns echo the overseas findings by Epley (2004), Boyd (2005) and Blake and Susilawati (2009).

5. International recognitions

Meeting full membership requirements of real estate appraiser/valuer institute has been the benchmark for a qualified real estate appraiser in various countries and regions such as the United States, Britain, Australia, Singapore and Hong Kong. Five internationally renowned professional bodies, including the Royal Institute of Chartered Surveyors (RICS), the AI, the Hong Kong Institute of Surveyors (HKIS), the Singapore Institute of Surveyors and Valuers (SISIV) and the API, are chosen for discussion in this section. All of them accept members from all over the world and thus the qualifications of their members are widely recognised.

The authors have summarised in Table 2 valuer membership requirements of the above five professional bodies, i.e. RICS, AI, HKIS, SISIV and API. The requirements include four major aspects: education qualifications, post-course experience, ethics and required competencies. To maintain the membership, valuers should comply with Code of Ethics,

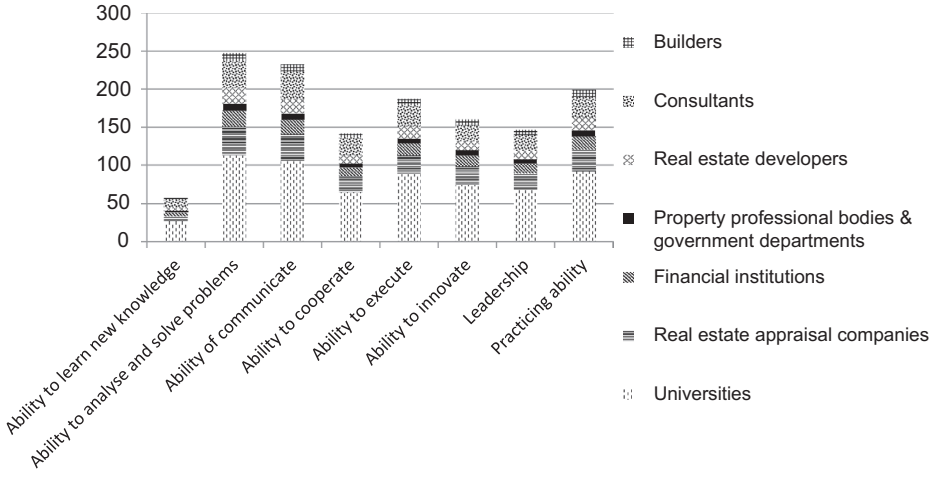

Figure 8. General competency deficiency of real estate graduates.

Table 2. Summary of full membership requirements of the five chosen professional bodies.

Professional Body	Membership requirements
RICS	(1) A relevant bachelor's-level qualification and/or a RICS-recognised professional designation; (2) At least 10 years' relevant experience. Those with a master's degree may only need five years; (3) Comply with code of conduct; (4) Complete written submissions and a final assessment interview to communicate professional and technical competence
AI	(1) A 4-year college degree from an accredited university; (2) Must receive credit for 4,500 h of specialised work; (3) General demonstration of knowledge requirement; (4) Attend courses and pass exams
HKIS	(1) At least 21 years of age; (2) have obtained a cognate graduate degree or equivalent; (3) have undertaken a minimum of two years or three years professional training of an approved nature of Hong Kong surveying practice; (4) have undergone an assessment of professional competence and a professional interview
SISV	(1) Possess a relevant academic qualification recognised by the institute; (2) For mature-aged candidate, be at least 35 years of age; have at least 10 years of relevant experience inclusive 2 years' local experience and holds a senior position; (3) Pass the Assessment of Professional Competence interview
API	For provisional member: (1) be of good character and repute; (2) have passed any examination and tests required by the Board; or have completed an API Endorsed Course or degree equivalent; or have completed an API approved partially qualifying degree; (3) have a period of at least two years Approved Professional Experience gained within the four years immediately prior to the date of application

Source: Information compiled by the authors from website of the chosen professional bodies.

valuation standards, undertake courses of continuing professional development and so on. It is observed that the RICS appears to offer the most structured requirements that target at values, skills, knowledge and attitudes.

The units/subjects in a professionally accredited real estate program are generally based on the following key knowledge field requirements: building studies, land use/planning commercial law, financial accounting, real estate investment/finance, property economics, property law, property management and property valuation. To meet the valuer membership requirements, other knowledge fields such as advanced property valuation, real estate market analysis and statutory valuation are also covered.

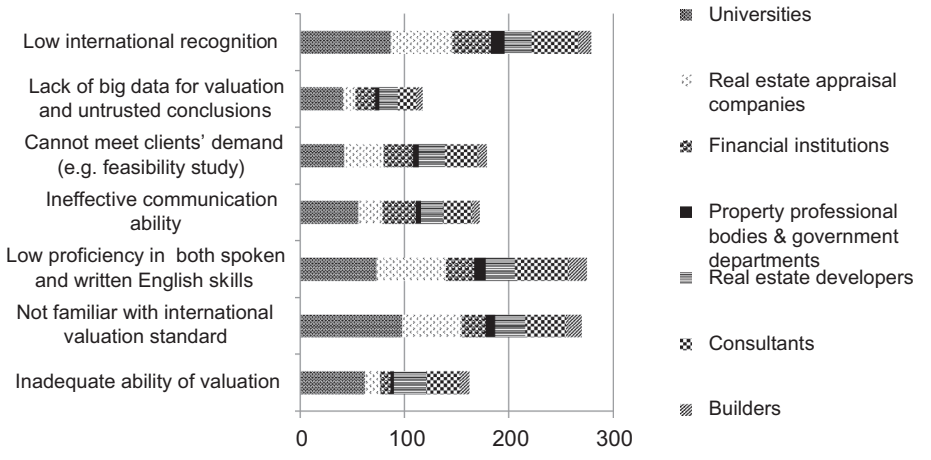

Figure 9. Weaknesses of Chinese appraisal companies and valuers.

In general, besides basic valuation knowledge and practicing skills, valuers also need to comply with the Code of Ethics or Standards of Professional Conduct. They also expect to possess other soft skills like effective oral and written communication, report writing, effective verbal presentation, logical analysis and reasoning ability, research ability and computer skills. In a nutshell, a qualified valuer member must possess an accredited degree, appraisal capability and work experience, and participate in continue professional development programs.

In comparison, Chinese appraisal companies and valuers are less competitive. The survey results in Figure 9 highlight that the problems are due to low international recognition, low proficiency in spoken and written English, unfamiliar with international valuation standard and methods, and ineffective communication ability. As for the question "whether property graduates in China are ready for international practice", only about 9% of the respondents think the graduates are completely ready. A majority of them (64%) think the graduates are partially ready and 27% think they are completely unready.

According to the respondents, the main reasons for why Chinese property graduates are not qualified for international consulting projects include: low proficiency in English communication skills and the lack of opportunities to participant in international projects; outdated teaching methods that do not meet the needs of internationalisation; and there is a lack of internationally qualified academics (see Figure 10).

In China, there are neither accredited real estate degrees, nor a compulsory requirement for appraisers to acquire CIREA membership or membership of other professional bodies. According to the Regulation of Certified Real Estate Appraisers issued by the Chinese Ministry of Construction, practicing appraisers can only be licensed and registered in the name of Certified Practicing Appraiser after meeting the following requirements: (1) passing the national examination and obtain the qualification; (2) finishing continuing professional development courses; (3) employed by a real estate appraisal company which has real estate appraisal business qualification; (4) there is no other restrictions preventing the registration.

The national examination is conducted by CIREA and covers four subjects – real estate law and policy, real estate development and management, real estate appraisal and case

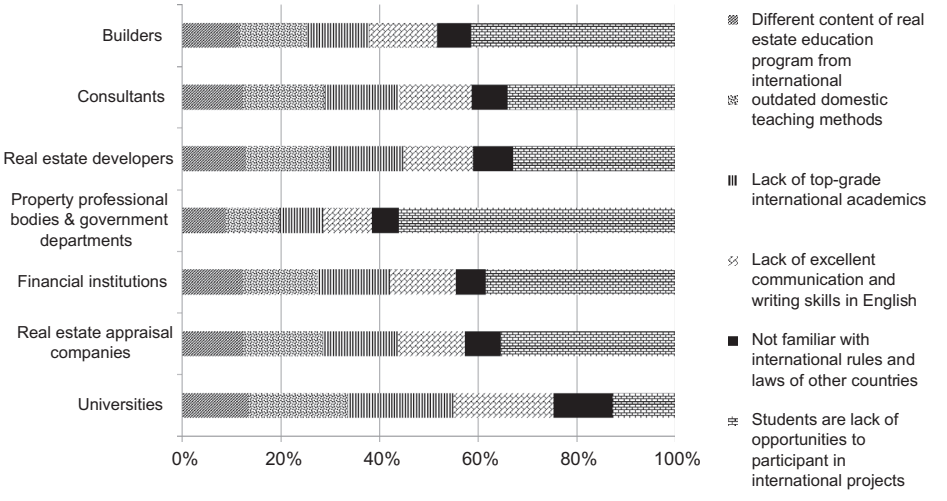

Figure 10. Reasons why Chinese property graduates are not qualified for international consulting projects.

analysis of real estate appraisal (CIREA (China Institute of Real Estate Appraisers & Agents), 2015). Other knowledge fields or competence, such as proficiency in English and professional ethics, are not tested in the examination. To be eligible for this examination, candidates must possess a real estate related diploma.

It was mentioned above that real estate education in China focuses on traditional areas of study in building construction, developer and economics. Although it appears to be a problem of the universities, it nevertheless echoes the expectation by the industry. Expected skills in reading and drawing engineering plans, bidding and contract management, and using engineering instrument and equipment, etc., as shown in Figure 7, demonstrate this point. These skills are not the ones expected by international real estate professional bodies and clients. They would expect students to have more skills in other areas such as valuation, portfolio analysis and management, problem solving, etc. instead of building engineering technology.

What is more, the diversity of real estate degrees in China cannot ensure students possess the knowledge that would meet the professional requirements of the industry. As seen in Table 2, all relevant professional bodies required students to successfully complete a cognate degree or accredited program. This requirement is simply nonexistent in China. The CIREA has no cognate degree accreditation requirement at all, not to mention if the accreditation requirements are comparable to the overseas counterparts.

According to the statutory requirements for appraiser registration mentioned above, candidates who successfully pass the national examination but fail to work in a real estate appraisal firm will not be eligible for registration. That means self-employed appraisers do not exist in China because they will not get registration. The disparity of real estate education and appraiser registration requirements between China and foreign countries means that, even if the candidates are successfully registered as a licensed appraiser in China, it is hard to say that they can meet the membership requirements of international appraisal associations. Hence they cannot be deemed to have professional competence expected by international clients.

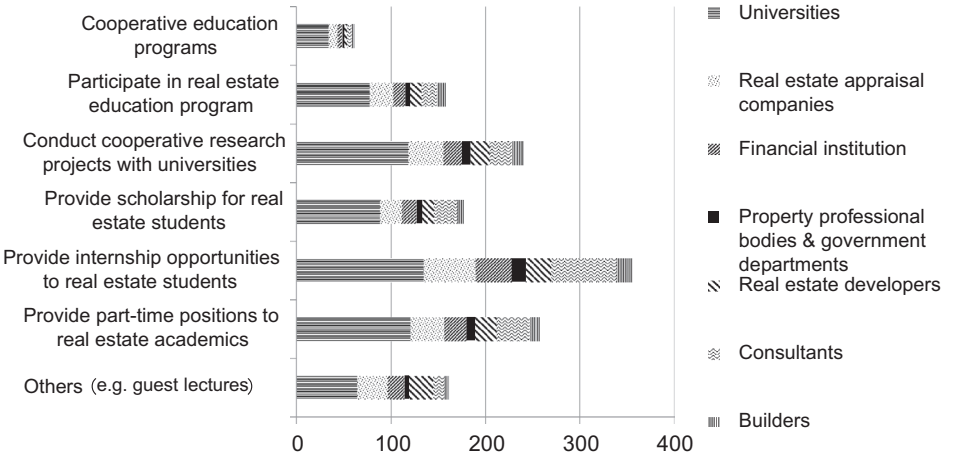

Figure 11. Ways for enterprises to enhance the links with real estate education sector.

6. Recommendations for real estate appraisal education in China

From the analysis above, the problems of real estate education in China are mainly in the areas of academic competence and staffing, curriculum/knowledge fields, and professional body accreditation. The following recommendations are an attempt to provide solutions for the issues.

6.1. Improve practical knowledge of teaching staff

In order to strengthen innovation and practical ability of academics in China, measures should be taken to enhance the connections between the industry and the education sector. In this regard, the respondents in Figure 11 suggest that enterprises should provide part-time positions to real estate academics, conduct cooperative research projects with higher education sector, as well as participate in real estate education program.

Also, about 78% of the respondents also suggest universities should provide opportunities for the academics to get practical experience. In this regard, it is suggested that property academics should be given the opportunity to work in enterprises for a period of time, such as during sabbatical leave or summer vacation. Academics should be encouraged to obtain higher qualification and have joint research projects with enterprises to help them gain practical experience. On the other hand, appraisers who work in appraisal companies should be encouraged to do volunteer work in universities or co-work with the academics.

6.2. Strengthen practical ability of students

Students are generally expected to possess three basic skills, i.e. real estate market appraisal skills, communication skills and adequate social skills. The following measures should be carried out to achieve the goal:

- The survey results in Figure 12 show that about 70% of the respondents think that there should be a reform of education, content and system of real estate courses to meet the

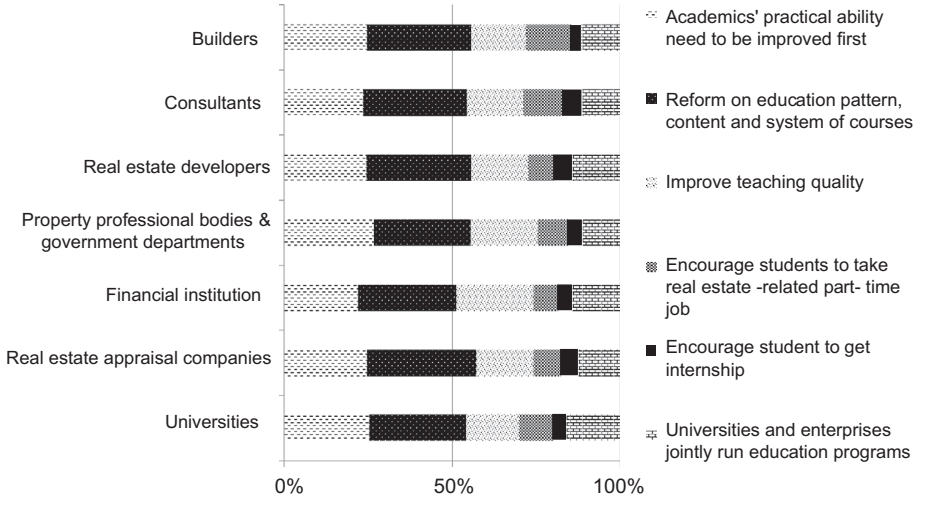

Figure 12. Ways to improve practical ability of real estate students.

need of the industry. In order to make it happen, about 57% of the respondents think that the practical ability of academics need to be improved first. A strong real estate context should be established early in the degree programs to increase students' interest in real estate appraisal and professional recognition. There should be engagement with the industry through fieldwork and work experience in the early stages of the program, so that students can learn and develop good social skills.

- The course contents should give students more exposure to market research and give them more opportunity to analyse and interpret market data. In regard to professional appraisal report writing, students should be trained to write report in both Chinese and English.
- Innovative teaching methods should be introduced to promote teamwork, and strengthen skills in oral communication in Chinese and English and logical thinking.
- More flexible mode of lecture delivery, such as blended learning, should be introduced to allow students to get part-time jobs in the real estate industry. Students should be required to finish some internship program or possess minimum amount of work experience before graduation.
- Strengthening the cooperation and communication between universities and appraisal firms via scholarships, prizes and internships to enhance students' practical knowledge and ability.

6.3. Update curriculum to meet the need of the industry

In regard to designing or updating curriculum, it is worthwhile for universities to consult the CIREA, which has close contact with the industry and employers. In addition, the curriculum should also be revised periodically according to the expectation and feedback of the industry. The universities and enterprises may also jointly run education programs.

It is also important to help students become more internationally oriented. The survey results in Figure 13 show some preferred methods, such as: hiring academics that have

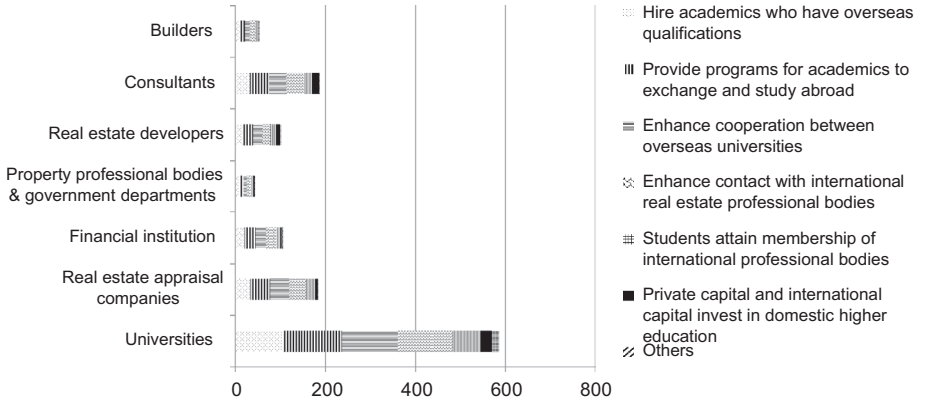

Figure 13. Ways to help students become more internationally oriented.

overseas qualifications; providing programs for existing academics to exchange and study abroad; enhancing cooperation between overseas universities; enhancing contact with international real estate professional bodies. Other suggestions include allowing private capital and international capital to invest in domestic higher education, encouraging students to get membership of international professional bodies and providing a platform to know about international property market are also proposed.

There are also suggestions to change the curriculum design to adapt to international demands. An overwhelming 87% of respondents suggest that universities should offer students overseas study programs and internship opportunities. About 77% think universities should enhance information technology knowledge (e.g. GIS, big-data). Other suggestions include introducing new subjects related to international property projects to the curriculum; importing online property courses from well-known foreign universities; and inviting foreign experts and scholars to deliver lectures. Besides, English appraisal report writing should be introduced and that English listening and speaking skills should also be strengthened. It is suggested that the relevant authority/parties should investigate the possibility in realising the suggestions.

6.4. Curriculum change and innovative programs

Besides curriculum reform, innovating education programs is also an important strategy. Chinese universities can promote real estate appraisal programs via international cooperation. Some universities have already achieved great success in international cooperative education programs in areas other than real estate appraisal. The possibility of running real estate appraisal programs like "3 + 1" (three years' study in home country and final year in foreign countries) or "2 + 2" (two years' study in home country and last two years in foreign countries) education projects should be explored. Cross-institutional or cross-country exchanging and communication programs for teaching staff can also be implemented. China may also attempt to import real estate appraisal programs from foreign countries.

6.5. Strengthen the cooperation and communication between the CIREA and universities

The CIREA should borrow experience from its overseas counterparts to enhance cooperation and communication with higher educational institutions by:

- Reviewing and revising the contents of the subjects/units of real estate programs of relevant universities according to the change and requirements of the real estate industry.
- Assisting the universities to further improve appraisal and related courses.
- Introducing student membership; and carrying out various activities to foster the relationship between student members and the industry.
- Setting up a communication platform between universities and appraisal firms for quality and stable internship arrangements so as to help the students get work experience and the employers select future employees.
- Developing professional training programs for real estate appraisal students to reinforce knowledge in report writing, professional ethics and risk management.
- Providing scholarships for real estate students, giving awards to outstanding students and providing opportunity for students to exchange and visit peers within the country or overseas.

6.6. Carry out pilot project for real estate appraisal degree accreditation

Professional bodies like the RICS and API have very successful experience in cooperation with higher education institutions. Since the CIREA has very close relationship with the real estate industry, it is constructive for it to carry out a pilot project to accredit real estate appraisal degree programs in several top universities. If there are successful outcomes, it can then gradually extend the successful experience to other universities and colleges.

In addition, through the accreditation platform, universities can also strengthen the cooperation with other international appraisal associations such as the AI, API and RICS. Students should be encouraged to obtain student membership and participate in the training programs provided by these professional bodies.

7. Conclusion

There is high demand for real estate appraisal services in China. However, few domestic appraisal firms are given jobs by foreign banks and investors. This is mainly due to capability issues as well as language barrier. At the time being Chinese real estate appraisers are not capable of preparing acceptable appraisal report for foreign investors. The problem is due to that the present real estate appraisal education cannot meet the expectation of all stakeholders. Section 4 has identified the problems in the current real estate education in China. Section 5 shows that there is a gap between China and the selected study countries in obtaining international recognition of real estate programs. Issues such as the lack of suitably qualified real estate appraisal academics, unsatisfactory curriculum/student knowledge fields, and the lack of professional body accreditation of real estate programs make it difficult for Chinese real estate appraisers to meet the requirements of local and international clients.

Despite the problems, it is possible to improve the Chinese real estate programs to meet international requirements. While not all recommendations in Section 6 are practical or acceptable in the eyes of the administrators, some of them, such as encouraging those academics without real estate appraiser registration to get it, encouraging and assisting students to get practical experience from part-time jobs, enhancing cooperation with overseas universities are certainly worth considering. Though it is possible for China to raise the competence of real estate appraiser to international level, certainly it will take a long time to achieve the goal.

In fact, Chinese universities are aware of the need to raise education to international level. Some of the universities have been successful in cross-country non-real estate education programs. With an increasing awareness in improving the quality of real estate appraisal program, universities and CIREA need to work closely and gradually solve the problems through exploration, cooperation and innovation. Anyway, China is becoming a full swing market economy, it is likely to see further improvement in the quality of real estate appraisal education in China.

Notes

1. The first author is a practicing registered valuer and academic in China.
2. The "211" project is an initiative of the Chinese government to create 100 high-standard universities and a group of key disciplines in the twenty-first century. The "985" project is the Chinese government's commitment to provide a number of world-class universities and a number of internationally renowned, research-orientated universities.

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References

Avdiev, R. (2000). Golden apple or poisoned chalice: The influence of education on careers. *Australian Property Journal, 36*, 270–272.

Baxter, J. (2007). Re-engineering a valuation degree: How did we get here and where do we go? *Journal of Property Investment and Finance, 25*, 444–467.

Black, R., & Rabianski, J. (2003). Defining the real estate body of knowledge: A survey approach. *Journal of Real Estate Practice and Education, 6*, 33–54.

Blake, A., & Susilawati, C. (2009). An evaluation of how well undergraduate property students are prepared for commencing their careers. *Pacific Rim Property Research Journal, 15*, 204–224.

Boyd, T. (2000). Educating the property professional of tomorrow. *Pacific Rim Property Research Journal, 6*, 45–60.

Boyd, T. 2005. *Stakeholder impact on property education programs*. Proceedings of the 11th Pacific Rim Real Estate Conference, University of Melbourne, Australia, 23–27 January.
Boyd, T. (2010). Are we exemplars for the property profession? *Pacific Rim Property Research Journal, 16*, 124–150.
Callanan, J., & McCarthy, I. (2003). Property education in New Zealand: Industry requirements and student perceptions. *Journal of Real Estate Practice and Education, 6*, 23–32.
Chan, N. (2004). Necessary changes to valuation practice in China after WTO admission. *Australian Property Journal, 38*, 86–91.
CBRE. 2015. All services. Retrieved December 8, 2015, from http://www.cbre.com.cn/EN/services/Pages/all-services.aspx
Chen, Y. (2002). How can property valuation enterprises cope with WTO: Talents, system and others. *Journal of Chinese and Foreign Real Estate Times, 2*, 36–37.
Cheng, L. (2010). Education of employability-oriented land resources management undergraduates in higher education institutions of China. *Journal of Scientific & Technical Information of Anhui Province, 39*, 123–126.
Chu, J., & Wang, L. (2006). Discussion on the basic cultivation pattern of real estate major talents. *Journal of Hebei Polytechnic University (Social Science Edition), 6*, 154–158.
CIREA (China Institute of Real Estate Appraisers and Agents). (2015). Real estate appraisers qualifying examination topics. Retrieved December 14, 2015, from http://www.cirea.org.cn/article/info/293.html
Cornish, S., Reed, R., & Wilkinson, S. (2009). Incorporating new technology into the delivery of property education. *Pacific Rim Property Research Journal, 15*, 303–320.
D' Arcy, É., & Taltavull, P. (2009). Real estate education in Europe: Some perspectives on a decade of rapid change. *Journal of European Real Estate Research, 2*, 69–78.
Ding, Y. (2008). Problems and proposals for Chinese property valuers. *China Real Estate Appraisal and Agency, 4*, 7–10.
DTZ. (2015). What we do. Retrieved December 8, 2015, from http://www.dtz.com/China/What_we_do?vgnLocale=en_GB
Epley, D. R. (2004). New ranking of decision making subject areas for corporate real estate executives. *Journal of Real Estate Research, 26*, 43–69.
Fischer, D. (2000). Is the valuation paradigm a paradigm. *Australian Property Journal, 36*, 292–299.
Hefferan, M. J., & Ross, S. (2010). Forces for change in property education and research in Australia. *Property Management, 28*, 370–381.
JLL. 2015. Services. Retrieved December 8, 2015, from http://www.joneslanglasalle.com.cn/china/en-gb/services
Liu, H. (1999). Reviews on Chinese property education from the experiences of foreign countries. *Journal of research on education Tsinghua University, 1*, 114–119.
Liu, Y. (2010). Research and practice on the model of talent cultivation of real estate management and valuation specialty. *Journal of China Economist, 5*, 124–125.
Manning, C. (2002). Improving real estate and other business courses through targeted student assessment. *Journal of Real Estate Practice and Education, 5*, 27–43.
Manning, C., & Roulac, S. (2001). Where can real estate faculty add the universities in the future? *Journal of Real Estate Practice and Education, 4*, 17–39.
Martinez, R. (2004). Online education: Designing for the future in appraiser education. *The Appraisal Journal*, *Summer*, 266–273.
National Natural Science Foundation. Retrieved June 26, 2015, from http://www.nsfc.gov.cn
Newell, G. (2007). Challenges and opportunities for property academics. *Pacific Rim Property Research Journal, 13*, 136–145.
Newell, G., & Acheampong, P. (2003). The quality of property education in Australia. *Pacific Rim Property Research Journal, 9*, 361–378.
Newell, G., & Eves, C. (2000). Recent developments in property education. *Australian Property Journal, 36*, 275–278.
Newell, G., & Susilawati, C. (2010). Student perceptions of the quality of property education in Australia: 1994–2009. *Pacific Rim Property Research Journal, 16*, 400–422.

Online University Enrolment System. (2014). Retrieved May 25, 2014, from http://gkcx.eol.cn
Page, G. (2008). *Australia graduates' perspective of their professional socialization*. Conference paper. 14th Annual Pacific Rim Real Estate Society Conference, Kuala Lumpur, Malaysia, 20–23 January.
Poon, J. (2012). Use of blended learning to enhance the student learning experience and engagement in property education. *Property Management, 30*, 129–156.
Poon, J., Hoxley, M., & Fuchs, W. (2011). Real estate education: An investigation of multiple stakeholders. *Property Management, 29*, 468–487.
Qian, Y., Yang, Y., & Qi, L. (2007). Characters of teaching and research of property education in UK and Hong Kong. *Journal of Chinese real estate, 1*, 77–80.
Sintusingha, S., & Wu, H. (2010). *Studio teaching for the property discipline*. Conference paper, The 17th Annual European Real Estate Society Conference, Nilan, Italy, 23–26 June.
Su, Y., & Chen, L. (2004). An analysis of cultivating the real estate professionals and some discussion of its teaching innovation. *Journal of Kunming University of Science and Technology, 4*, 84–87.
Susilawati, C., & Armitage, L. (2011). Understanding the diversity of non-specialized units within Australian property degrees. Conference paper, 17th Annual Pacific Rim Real Estate Society Conference, 16–19 January.
Tang, L., Wu, L., & Liang, W. (2013). How to improve the practicing ability of property valuers. *Journal of China Real Estate Appraisal and Agency, 4*, 44–46.
Wang, X. (2006). The present educational system of the colleges' real estate major in China and proposal on its development. *Journal of Hebei Institute of Architectural Science and Technology (Social Science Edition), 23*, 74–75.
Wang, H., & Huang, Y. (2011). Present situation of property undergraduate talents training in higher education institutions of China. *Modern Enterprise Education Journal, 16*, 160–161.
Wu, H. (2008). Analysis of development strategy the real estate in Chinese higher education. *Journal of Wuhan Institute of Shipbuilding Technology, 7*, 5–8.
Wu, S. (2009). An assumption of evaluation index system for real estate appraiser's practice ability. *Journal of China Real Estate Appraisal and Agency, 4*, 23–27.
Xu, W. (2010). Discussion on the design of real estate appraisal courses and teaching method in higher education institutions. *Journal of Modern Business Trade Industry, 22*, 244–245.
Zhang, X. (1999). Investigation report on property education programs in American universities. *Journal of architectural education in institutions of higher learning, 28*, 76–78.
Zhang, Z., & Chu, D. (2009). Discussion about education model of applied real estate talents in colleges and universities. *Journal of Heilongjiang History, 22*, 8–11.
Zheng, X., & Yao, Y. (2013). On reform of theory-practice integration of real estate appraisal practice course. *Journal of Jiangshu Jianzhu Institute, 13*, 47–50.