Abstract
Rapid urbanization is a common global phenomenon and Malaysia is not an exception with more than 75 percent of the world’s population currently living in urban centers. One way of addressing urbanization challenges is through institutions producing competent urban planners with the industry playing a vital role in the design and implementation of the universities’ curriculums. The objective of this study is to investigate the perceptions and expectations of the industry on urban planning programs of Malaysian universities. The inputs from the industry were collected through a survey involving respondents from government agencies, urban planning practitioners, built environment consultants and property developers. The finding reveals that the subjects covered in the curriculums are suitable in producing marketable and industry-relevant urban planning graduates. Additionally, the syllabi encompass essential planning theories and contemporary concepts, nurture designing abilities and incorporate excellent use of technology with up-to-date software and hardware. However, the respondents opine that the management components, legal matters and communication skills can be further enhanced in order to produce better urban planners who are well-equipped to face real-world challenges. The study concludes that more industry-university cooperation is necessary including embedding industry experts in various learning settings such as input lectures and critique sessions to benefit both the students and the academics. Research collaboration between the institutions and the industry is another golden opportunity that should be explored. A mutual platform is also proposed to encourage more interactions among stakeholders in the urban planning field to enable updating of members on latest development and accomplishments. Furthermore, the industry agrees that an urban planning program which is capable of addressing the current challenges is an exceptional investment not only for the country but the wider region as well.

Keywords: urban planning education, university-industry cooperation, Malaysia, urbanization.
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2 LITERATURE REVIEW

Many literatures have discussed on the topic of university-industry partnership and the benefits gained by those involved. Tjia and Sutrisna (2016) opine that this partnership allows universities to diversify finance sources, improve practical knowledge and skill, drawing more and better students and also strengthening university’s reputation by integrating updated technology. The benefit of this linkage is also shared by Roshani et al. (2015) stressing that the industry working together with higher education institutions can encourage technology transfer as well as strategic networking. The university-industry collaboration is a natural process since the main agenda is to produce successful and sustainable partnership in guaranteeing highly skilled and capable manpower to fulfil the need of the industry (Othman and Omar, 2012). Meanwhile, Salleh and Omar (2013) recommend the involvement of industry representatives in classes and the establishment of university-industry collaboration council. The role of the council is to coordinate the collaborative effect involving the industry, the university as well as the government.

In addition to participation of industry players in the running of university’s curriculum, industrial attachment is another vital segment within university-industry linkage. For Malaysia, its Ministry of Education has established a policy on industrial attachment for the higher education institutes called ‘Industrial Training Policy for Institutes of Higher Learning 2010’ with the intention of strengthening and ensuring uniform implementation of industrial training in various institutions. Furthermore, the policy also recognised the role of the relevant professional bodies in ascertaining the quality of academic programmes under their purview that regularly include a component on industrial attachment.

A number of authors have touched on the role of industrial training and professional programmes and these include Nor’Aini Yusof et al. (2013) who propose that technical-based (including professional academic programmes) students can improve their behavioural and technical skills while undergoing industrial training. Rompelman and de Vries (n.d.) suggest that practical training gives a unique prospect for students to learn about the roles and responsibilities of engineers. Additionally, Abdullah et al. (2007) advocate that through their practicum, engineering students can acquire and apply the fundamental knowledge of engineering as well as competency in theoretical and research engineering. To ensure quality and uniformity of the implementation of industrial training, it is therefore vital for any professional academic programmes to follow the policies and parameters provided by the stakeholders of the relevant professions. Other than providing place for internship, other commonly recognised activities for university-industry cooperation are appointment of university adjunct or fellows from the industry, consultation work, commercialisation as well as joint-research effort (Salleh and Omar, 2013; Roshani et al., 2015; Tjia and Sutrisna, 2016).

3 URBAN PLANNING PROGRAM IN MALAYSIAN UNIVERSITIES

The urban planning program was established in Malaysia in the early 1970s pioneered by the University of Technology Malaysia (UTM) and the University of Science Malaysia (USM). Currently five universities are offering undergraduate professional urban planning program comprised of UTM, USM, the University Technology MARA (UiTM: started in 1975), the International Islamic University Malaysia (IIUM: established in 1998) and lastly the University of Malaya (UM: commenced in 2011).

In general, the departments offering the urban planning degree are based in the built environment faculties with other programs on offer including architecture, quantity survey, landscape and environmental design.

All of the urban planning programs involved at least four years of studies with the exception of USM with three years. The graduating credit hours ranged from 133 to 141 credit hours with each programs using the studio-based approach of between six to seven semesters. Additionally, emphasis was also placed on industrial attachment for all urban planning students for a duration of between 10 to 20 weeks. At the time of this study, there were nearly 900 students and almost 90 active academic staff collectively from all of the urban planning schools (overall students to staff ratio of about 1:10).
As normally practiced in any professional disciplines, the urban planning program is required to undergo an accreditation exercise and this is conducted by the Board of Town Planners Malaysia. Customarily, the Board evaluates all of the urban planning programs for a duration of between three to five years and a Mid-Term review is another normal practice implemented by the Board to ensure quality delivery of the programs.

4 METHODOLOGY

For this investigation, two data gathering methods were adopted involving distribution of questionnaire survey to industrial players to gauge their opinions on the urban planning graduates and secondly a workshop was organized subsequent to the completion of the survey. Outcomes from the questionnaire survey were statistically analysed and since most were nominal data, it involved more descriptive analysis such as frequency and percentage. Subsequent to the survey, a series of discussion was organized within a workshop, including discussing the findings from the questionnaire survey, and the outcomes are recommendations that the participants felt can further improve the urban planning education for the country.

5 SURVEY OF THE INDUSTRY

The survey of the industry players saw an involvement of 57 respondents linked to the urban planning practice in Malaysia. The respondents were asked about the strengths, weaknesses of the urban planning graduates from Malaysian universities including their qualifications, required skills, and recommendations for continuous improvement of this academic program.

The break-down of the industry respondents who participated in this survey were 26 (63 percent) from the government agencies, 14 respondents (24 percent) from the urban planning consultants, nine respondents (15 percent) consisted of other built-environment consultants, next are six real estate/property developers (10 percent) and, two respondents (three percent) of ‘other organization’. Three major inputs from this survey comprised of performance, strengths and weaknesses of the urban planning graduates according to the industrial respondents are discussed below.

5.1 Performance of Urban Planning Graduates

One of the questions asked in the survey is the perception of the respondents on the performance of the urban planning graduates employed within their organizations. The feedbacks from the respondents are as depicted in Fig. 1. In general, it was observed that higher percentage of satisfaction were given by the respondents to technical skills, professional knowledge and skills, moral values and ethics and disciplines. On the other hand, the respondents rated the urban planning graduates working in their organization as average to not satisfying for design and communication skills.

It can be deduced that the employers prefer graduates with good communication abilities, knowledgeable and with excellent professional skills when recruiting. Additionally, great moral values and ethics as well as good discipline are important characteristics that the industry were looking for when recruiting candidates from urban planning background. Candidates who exhibit the combination of these characteristics are those likely to be offered for a place within the organizations involved in this study. The industry respondents emphasized on the need for additional exposure for the graduates to further strengthen their communication, design skills and professional knowledge. This implies that all of the Malaysia’s urban planning programs must place more efforts in improving existing skills as well as providing more avenues for the students to develop their capabilities.
5.2 Strengths of Urban Planning Graduates

The respondents were also questioned regarding their perceptions on the strengths of urban planning graduates and they have the option of selecting more than one of the choices listed (design skill; technology and environment; cultural context; communication skill; management practice and law; others). 29 percent of the respondents opined that good design skill is an advantage for a practicing urban planner. Next, know-how in technology and the environment was placed second (27 percent) while communication skills (17 percent) was positioned third. Coming close at 16 percent was management practice and law whereas cultural context was classified last at 11 percent.

The analysis shows that it is essential for the urban planning graduates to exhibit the above skills and capabilities to increase their employability upon completing their studies. For instance, a graduate with excellent design skill, proficient in technology and supported by good environmental knowledge is more likely to be able to produce a well-balanced plan taking into considerations current environmental issues and existing site challenges. Meanwhile, the urban planning programs should continue to enhance inputs for continuous improvement on communication skills, management practice, legal matters and cultural context. This can ensure the graduates produced will be capable of handing the many urban-related challenges and providing valuable assistance to the communities specifically and the country in general.

5.3 Weaknesses of Urban Planning Graduates

In addition to the strength of urban planning graduates, the industrial respondents also assessed the weaknesses of these graduates. The respondents were allowed to select more than one from the options listed (design skill; technology and environment; cultural context; communication skill; management practice and law; technical skill and knowledge; others). For this category, the weaknesses with the highest score of 25 percent was communication skill and this was followed closely by management and law at 23 percent. Design skill comes next with 18 percent while technical skill and knowledge scored one percent less with 17 percent. Knowledge on technology and environment was placed fifth with 11 percent and the final weakness from the list was cultural context notching six percent.

Based on the outcomes of the survey, most of the industrial respondents agreed that communication skill as well as knowledge on management and law were identified as the most detrimental weakness that must be addressed through enhancing of existing subjects or to introduce new subjects into the curriculum. Furthermore, the respondents were also not satisfied with the level of management practice and legal knowledge of the urban planning graduates employed within their establishments.
Less than expected level of satisfaction for design skill and technical know-how were highlighted as shortcomings with basic technical skill identified as a component which must be further strengthened. It was reiterated that all of these disadvantages must be tackled by the stakeholders to ensure the urban planners produced are competent and at par with the professionals of any other disciplines.

6 OUTCOMES FROM THE WORKSHOP

Subsequent to the completion of the survey involving respondents from the industry above, a workshop was organized with the same intention of determining the future direction of the urban planning education in Malaysia. Again, the participants comprised of representatives from the industry, both from the government and private sector. For this session they were also joined by academic representatives from the urban planning schools in Malaysia. Members of the workshop were briefed on the findings from the survey involving industrial players and a series of discussion held helped to establish recommendations on further enhancement of urban planning education. The next section discusses two major recommendations reached by the workshop: the curriculum and the support system for urban planning education.

6.1 Curriculum

The workshop recognized that all of the curriculum adopted by the universities offering a professional degree in urban planning must be perpetually improved in line with the needs of the industry. Creativity and design should be emphasized as most of current urban issues need creative and innovative approaches. Moreover, urban planners interact a lot with professionals from other fields and this calls for effective communication among all of those involved. Exposure on economics, land, law and engineering must also be provided within the curriculum. For instance, when dealing with land development, an effective urban planner must engage the best land-use, economical or engineering solutions while taking into consideration the relevant gazetted legal acts or regulations.

More exposure is also necessary for urban planning students on sustainability, green technology and climate change concerns. Additionally, current affairs should be discussed in class and familiarized the students with a variety of technical solutions implemented at both the local and global levels. Specifically-designed international study-visits should be encouraged as one of the approaches for this purpose. At the same time, a flexible curriculum is greatly treasured as it must be able to not only fulfil the requirements of the industry, be it in the government or private sector, but the entrepreneurship endeavour as well; to prepare students with high interest of working on their own. The local market should not be the limit of preparing these students since the curriculum must also take into account the international sector as Malaysia is experiencing the liberalisation of its professional services.

Higher degree of industry-university cooperation is another aspect underlined by the workshop participants including involvement of industry experts in classes and studios on specific subject matters that can be advantageous to the students and the academic staff. Real-life case studies and techniques can be shared among all participants and the academic exercise is then not limited to those available in the books and journals. Moreover, research collaboration between the urban planning schools and the industry is another vehicle that should be encouraged and may also include placement of academics within the industry for a specific time period for mutual benefits.

6.2 Support Services

To further reinforce the education for urban planning students, the workshop suggested for a better support services involving all of the stakeholders. Firstly, a common platform is proposed consisting of all urban planning schools in Malaysia, Malaysia’s Institute of Planners, the Board of Town Planners and the industry players themselves. The objective of this platform is mainly to enable better communication among all stakeholders, to keep tab on the latest development in the practice and to initiate needed changes whenever necessary. This platform should benefit all of the parties involved including the urban planning students concerned. For example, the proposed platform is an ideal vehicle for placement of these students for their industrial attachment. Likewise, the latest technology or solution for any specific problem can be shared among all of the members within the platform.

The next recommendation under the support services is the inclusion of international study-visit within the curriculum as discussed in 6.1. The proposed study-visit is envisaged as an opportunity for the students and the academic staff to be exposed and familiar with solutions to various urban issues as
implemented in another country as a benchmark. The workshop recognized that this benchmark study-visit may be costly but the advantage of implementing this proposal far outweigh the disadvantage. Students can take the initiative of preparing financially for the trip from the first semester of their studies or they can also take part in the students exchange program with another international institution for the same purpose.

7 CONCLUSION

The finding of this investigation reveals that the industry perceived subjects covered in the curriculums of all five urban planning programs in Malaysia are suitable in producing marketable and industry-relevant urban planning graduates. Additionally, the syllabi encompass essential planning theories and contemporary concepts, nurture designing abilities and incorporate excellent use of technology with up-to-date software and hardware. However, the respondents opine that the management components, legal matters and communication skills can be further enhanced in order to produce better urban planners who are well-equipped to face real-world challenges.

The study concludes that more industry-university cooperation is necessary including embedding industry experts in various learning settings such as input lectures and critique sessions to benefit both the students and the academics. Research collaboration between the institutions and the industry is another golden opportunity that should be explored. A mutual platform is also proposed to encourage more interactions among stakeholders in the urban planning field to enable updating of members on latest development and accomplishments. Furthermore, the industry agrees that an urban planning program which is capable of addressing the current challenges is an exceptional investment not only for the country, but the wider region and the global level as well.

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