Employers’ attitudes to HOU postgraduates’ qualities and skills

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Abstract

Purpose – The purpose of this paper is to investigate employers’ attitudes towards qualities and skills for the twenty-first century of Hanoi Open University (HOU) postgraduates. More specifically, it is to find out employers’ assessment and satisfaction on five sets of skills: foundation skills, professional competencies, personal attributes, organizational skills and technical knowledge and skills.

Design/methodology/approach – The study used a survey questionnaire as a tool to collect data. The survey was conducted on employers of HOU postgraduates who graduated during the academic years 2015–2016 from five faculties at HOU.

Findings – The findings of the study show that employers highly appreciated HOU postgraduates in numeracy skills, ICT literacy skills and information literacy within foundation skills; critical thinking and problem solving skills, collaboration skills and conceptual skills within professional competencies; responsible, integrity and interpersonal skills within organization skills; productivity, organization and planning and time management within organizational skills; knowledge-related regulations and policies at workplace, capacity to use knowledge and skills at workplace and lifelong learning within technical knowledge and skills.

Originality/value – The values of the study are that the employer attitudes identified can be used to evaluate educational programs and can be used as a quality assurance measure. The study helps to indicate the gap between the expectation and the satisfaction of employers on HOU postgraduates. Thereby, suggestions can be given to HOU’s management to improve the services at the university in general and the services to postgraduate students in particular to upgrade their qualities and skills to meet social demands.

Keywords Employers, Satisfaction, Skills, Qualities, Postgraduates, Importance

1. Introduction

Education quality, which depends on various stakeholders, including students, academicians, employers, the government and education service providers, is a major issue concerned by the society as a whole. Though education quality is measured and assessed by different means, the purpose of the measurement and assessment is by any means to improve the quality of education programmes offered, in particular, and the quality of the labour force, in general.

Education institutions often evaluate the education quality on three factors: input (learners’ competencies, teachers, management staff, facilities, finance, etc.), training process (syllabus, educational structure and system, testing and assessment, scientific research, etc.) and output (learners’ achievement, teachers’ assessment, employability of graduates, etc.). Under the impacts of globalization and integration, education institutions are changing their strategies, shifting their foci from the quantity to the quality of their products. Meanwhile, employers who benefit from the final products of education concentrate on its “output”, including graduates’ personal attributes, knowledge and skills. For them, quality is to meet employers’ needs and requirements. This is shown through how graduates and postgraduates can meet the requirements of their employers and the demands of the workplace.
This approach in evaluating the education quality, which is from the employer perspective, can be called the “demand” approach.

Thus, the perception of employers on the sets of skills that they consider important and satisfactory can be used to evaluate educational programmes and can be used as a quality assurance measure. The findings of this study help to identify the employers’ needs and requirements on the qualities and skills of postgraduates for the twenty-first century, in general, and the employers’ satisfaction on Hanoi Open University’s (HOU) postgraduates, in particular. Thus, suggestions are given to employers, learners and especially to managers at HOU to improve the services at the university in general and the services to postgraduate students in particular to upgrade their qualities and skills to meet the social demands.

2. Theoretical framework

In Vietnam, there are no framework for qualities and skills for the twenty-first century of postgraduates. Although there have been some studies on employers’ attitudes towards qualities and skills for the twenty-first century of postgraduates, these studies applied frameworks for qualities and skills for the twenty-first century of undergraduates. In this context, this study applied the framework for twenty-first century qualities and skills of postgraduates developed by the OU5 research team (see Sumalee et al., 2017).

Based on the existing employer satisfaction surveys carried out by a number of institutions such as The University of Sydney Business School (2014), The University of Texas-Pan American (2001), Hanover Research Council (2009) and The University of North Dakota (2011), the OU5 research team built up its own framework for qualities and skills that are widely thought necessary to the twenty-first century. In this framework, skills that are identified important across most available frameworks are categorized into five sets: foundation skills, professional competencies, personal attributes, organizational skills and technical knowledge and skills. The five sets of skills with 30 subsets are described in detail as follows.

2.1 Foundation skills

In general, foundation skills refer to skills that form the building block to any educational programme that enables learners to proceed to programme-specific courses. Such skills also refer to essential skills that a person needs to manage work and life in general. While different frameworks may identify different set of foundation skills, these often include communication skills and numeracy. In the OU5 framework, six subsets of skills under foundation skills are determined as follows: English language oral communication, English language written communication, English language comprehension, numeracy skills, ICT literacy skills and information literacy.

2.2 Professional competencies

Professional competencies refer to the skills that a person needs to do something (to think, to collaborate) in a professional context. There are competencies that are generic to a large number of professions, including critical thinking, creative thinking, conceptual skills, problem solving skills, scientific skills, research skills, collaborative skills, social skills, team skills and lifelong learning skills. In the OU5 framework, six subsets of skills under professional competencies are determined as follows: critical thinking and problem solving, creative and innovative thinking, analytical skills, conceptual skills, collaboration skills and research skills.

2.3 Personal attributes

Personal attributes refer to a wide category that depends on the personality of an individual. In this study, personal attributes refer to those that perceived to be relevant to employability.
Six subsets of skills under personal attributes are determined as follows: responsible (capacity to achieve targets and meet deadlines), integrity (capacity to observe professional and general ethical standards), self-reliance (capacity to work autonomously), adaptability (capacity to be flexible and adaptable), interpersonal skills (capacity to communicate and relate well with others) and cross-cultural skills (ability to work in a multicultural and international context).

2.4 Organizational skills
This set of skills lists generic business skills that most enterprises/organizations would consider as important skills that they would expect from their employees. In the OU5 framework, six subsets of skills under organizational skills are determined as follows: organization and planning, time management, productivity, leadership, decision-making skills and entrepreneurial skills.

2.5 Technical knowledge and skills
Technical knowledge and skills include capacity to use knowledge at workplace and capacity to acquire/develop new knowledge and skills. In the OU5 framework, six subsets of skills under technical/domain-specific knowledge and skills are determined as follows: lifelong learning (capacity to develop knowledge and skills), capacity to use knowledge and skills in the workplace context, knowledge-related regulations and policies at workplace, knowledge of international standards and related bodies, general knowledge of surrounding environment, and cross-cultural skills (ability to work in a multicultural and international context).

3. Methodology

3.1 Aims and objectives of the study
The aim of the study is to investigate employers’ attitudes towards HOU postgraduates’ qualities and skills for the twenty-first century.

To this aim, the study seeks answers to the following questions:

*RQ1.* What are the expectation of employers on the twenty-first century qualities and skills of postgraduates?

*RQ2.* What are the employers’ satisfaction levels on the twenty-first century qualities and skills of HOU postgraduates?

*RQ3.* What are the gap between the expectation of employers on the twenty-first century qualities and skills of postgraduates and their satisfaction levels on the twenty-first century qualities and skills of HOU postgraduates?

*RQ4.* What are the areas of the twenty-first century qualities and skills that HOU postgraduates need to improve?

3.2 Methods of the study
To collect data to find answers to the research questions, the study used a survey questionnaire as a major instrument. The questionnaire was designed based on the five sets of skills with 30 subsets of skills identified on the framework. Participants were asked to rate the importance of each of the 30 subsets of skills and also their satisfaction on each of the 30 subsets of skills related to their HOU employees. The instrument design includes two sets of five-point Likert scales to measure importance and satisfaction. The interpretation of the rating is shown in Table I.
3.3 Population and sampling
The target population for the survey questionnaire was employers of HOU postgraduates. Within the scope of the study, the survey questionnaires were distributed to employers of HOU postgraduates for the academic years 2015–2016 in five faculties, namely Business Management, English Language, Economic Law, Information Technology and Electronic Technology, due to the fact that only these five faculties had postgraduates for the academic years 2015–2016. Total, there were 785 HOU postgraduates for this period, and during the time frame of this study, there were 375 employers nationwide who employed HOU postgraduates. However, 234 responses were received.

The respondents came from five different provinces, of whom 17.99 per cent were from Bac Ninh, 9.35 per cent from Ninh Binh, 41.01 per cent from Hanoi, 14.39 per cent from Bac Giang, and 17.27 per cent from Vinh Phu. In total, 50.85 per cent of the respondents were female and 49.15 per cent were male; 58.12 per cent of them were from the public sector and 41.88 per cent from the private sector. 25.21 per cent of them specialized in Business Administration, 6.84 per cent in Accounting, 50.85 per cent in Economic Law, 6.41 per cent in Information Technology and 10.68 per cent in the English language (Table II).

3.4 Procedures and data analysis
The questionnaire was in Vietnamese and delivered to 375 employers nationwide who employed HOU postgraduates. The questionnaire was delivered in person or by e-mail. After a month, 234 responses were received.

Only completed questionnaires, with all subsets of skills rated, were used for data analysis. The data obtained were analyzed using descriptive statistics. The Statistical Package for Social Science software was used for this purpose.

The data were analyzed in terms of the mean score and standard derivation for each set and subset of skills on importance and satisfaction.

4. Findings and discussion
First, the mean score for importance of each set and subset of skills was obtained. These values were used to rank the sets of skills in terms of importance. The knowledge on the importance of the sets and subsets of skills is crucial for the university to learn about the demands of the labour market. In a similar manner, the mean score for satisfaction was obtained for each set and subset of skills on satisfaction.

| Scale       | Interpretation                      |
|-------------|-------------------------------------|
| 1.00–1.80   | Not at all satisfied/important      |
| 1.81–2.60   | Not very satisfied/important        |
| 2.61–3.40   | Somewhat satisfied/important        |
| 3.41–4.20   | Very satisfied/important            |
| 4.21–5.00   | Extremely satisfied/important       |

Table I. Interpretation of the rating of employers

| Occupation                        | No. | Percentage |
|-----------------------------------|-----|------------|
| 1. Business Administration       | 59  | 25.21      |
| 2. Accounting                     | 16  | 6.84       |
| 3. Economic Law                   | 119 | 50.85      |
| 4. Information Technology         | 15  | 6.41       |
| 5. English Language               | 25  | 10.68      |
| Total                             | 234 | 100.00     |

Table II. Occupation distribution of respondents
and subset of skills. These values were used to identify the sets and subsets of skills that were satisfactory to employers. The knowledge on the satisfaction of employers can serve to measure the quality of the educational programmes that the university offers.

Second, the mean score for importance and satisfaction of each subset of skills was analyzed to find out the correlation between these indices. The knowledge on the correlation between importance and satisfaction of each subset of skills can be used to identify the weak points that the university should address to improve the qualities and skills of its postgraduates. Following are the findings in details.

4.1 Employers’ views on the sets of skills identified

The data show that, in general, expectation levels of employers on different sets of skills vary. Employers had highest expectation on personal attributes and professional competencies with the importance level of personal attributes at 3.76 and professional competencies at 3.66, within the range of “Very Important”. The importance levels of other sets of skills were lower, within the range of “Somewhat Important”. The lowest rating was for foundation skills at 2.96 (Table III). This implies that employers may take for granted that employees had already acquired foundation skills at lower levels of education and that at the higher level of education, personal attributes and professional competencies were those that counted in the workplace context and should be stressed.

In terms of satisfaction, the data show that the satisfaction levels of all the five sets of skills identified were at “Somewhat Satisfied”. Similarly to the importance levels, the satisfaction levels for personal attributes and professional competencies were higher at 3.38 and 3.20, respectively. This can lead to a conclusion that HOU had to some extent satisfactorily met the demands of the labour market. A rather surprising finding at this point was that the lowest rating was again for foundation skills at 2.83. Although employers did not view foundation skills as important as other set of skills, their low satisfaction on this set of skills implies that this is a weak area the university should address.

The data also show that there was a strong correlation between the levels of importance and the levels of satisfaction, with only a slight change in the ranking between organizational skills and technical knowledge and skills. Again, this may imply that the expectation of employers had been met to a satisfactory level; in other words, HOU could be said to have satisfactorily met the demands of the labour market. However, the fact that the levels of importance were lower than the levels of satisfaction for all the sets of skills implies that the qualities and skills of HOU graduates were still lower than the expectation of employers and there were still areas for quality improvement.

4.2 Employers’ views on the subsets of skills identified

4.2.1 Employers’ views on foundation skills. The data show that, in general, expectation levels of employers on different subsets of foundation skills vary. Employers had higher expectation on ICT literacy skills and information literacy, with the importance levels on these skills being at 3.46, within the range of “Very Important”. This may imply that these
skills should receive more emphasis and weight in postgraduate educational programs in the context of Vietnam at the time being. This is relevantly in line with the fact that ICT is now playing a more and more important role at workplace. The importance levels of English language written communication and English language comprehension were the lowest at 2.38 and 2.44, respectively, within the range of “Not Very important”. This may imply that the English language written communication and English language comprehension of the labour force in Vietnam had been improved over time, with all kinds of promotion programs for English learning since 1986, when the open door policy was put into place. However, while expectation levels for English language written communication and English language comprehension were within the range of “Not very important”, the expectation level for English language oral communication was higher, within the range of “Somewhat Important”. This may imply that at workplace, this English language skill was used more often than other English language skill. Also, in the range of “Somewhat Important” was the rating for numeracy skills (Table IV).

Regarding the satisfaction levels of employers on these subsets of skills, data show that the employers had higher satisfaction levels on information literacy, ICT literacy skills and numeracy skills, with the rating for these skills were within the range of “Somewhat Satisfied”. This may imply that HOU postgraduates had to some extent meet the expectation of the employers in terms of these skills. However, it was quite expected that the satisfaction levels of employers on skills related to the English language were all lower, within the range of “Not Very Satisfied”. This may imply that the weakness of HOU postgraduates in the English language skills was limited to the context of the university.

The data show that the correlation between the importance levels and the satisfaction levels were strong. This may imply on one hand “a good news” that HOU postgraduates had to some extent meet the expectation of the employers on skills of higher importance, and on the other hand “a bad news” that HOU postgraduates were weak at skills of lower importance, and this weakness should be addressed soon as it was limited to the context of the university.

4.2.2 Employers’ views on professional competencies. As shown in Table V, the overall importance mean score of all subsets of skills within professional competencies was within

| Section A: foundation skills | Importance | Satisfaction |
|-----------------------------|------------|--------------|
|                            | X         | SD           | X         | SD           | Gap  |
| 1. English language oral communication | 2.64 | 0.35 | 2.46 | 0.37 | 0.18 |
| 2. English language written communication | 2.38 | 0.37 | 2.44 | 0.37 | 0 |
| 3. English language comprehension | 2.44 | 0.37 | 2.44 | 0.37 | 0 |
| 4. Numeracy skills | 3.38 | 0.36 | 3.15 | 0.34 | 0.23 |
| 5. ICT literacy skills | 3.46 | 0.36 | 3.23 | 0.35 | 0.23 |
| 6. Information literacy | 3.46 | 0.36 | 3.28 | 0.35 | 0.18 |

Table IV. The rating of employers on foundation skills

| Section B: professional competencies | Importance | Satisfaction |
|-------------------------------------|------------|--------------|
|                                    | X         | SD           | X         | SD           | Gap  |
| 7. Critical thinking and problem solving | 3.69 | 0.38 | 3.36 | 0.35 | 0.33 |
| 8. Creative and innovative thinking | 3.54 | 0.37 | 3.05 | 0.34 | 0.49 |
| 9. Analytical skills | 3.77 | 0.39 | 3.28 | 0.35 | 0.49 |
| 10. Conceptual skills | 3.74 | 0.39 | 3.31 | 0.35 | 0.43 |
| 11. Collaboration skills | 3.79 | 0.39 | 3.31 | 0.35 | 0.48 |
| 12. Research skills | 3.41 | 0.36 | 2.9 | 0.34 | 0.51 |

Table V. The rating of employers on professional competencies
the range of “Very Important”, of which the expectation of employers on collaboration skills was the highest at 3.79, and the expectation of employers on research skills was the lowest at 3.41. Because these skills are those that a person needs to do something in a professional context, they are directly related to the workplace context, and then it is not a surprise that the expectation levels of the employers on these skills were higher than their expectation levels on other sets of skills.

The data show that satisfaction levels of employers on all these subsets of skills were within the range of “Somewhat Satisfied”. This is a good new for HOU as it implies that HOU postgraduates had to some extent satisfied the needs and requirements of the employers.

However, the gap between the overall mean score of importance and satisfaction was rather big. This may imply that HOU postgraduates need to improve all of the six subsets of skills within professional competencies, focusing more on skills with bigger gap between importance and satisfaction, ranging from 0.51 for research skills down to 0.33 for critical thinking and problem solving.

4.2.3 Employers’ views on personal attributes. As shown in Table VI, for personal attributes, the employers’ expectation levels on all subsets of skills, except for cross-cultural skills, were within the range of “Very Important”, with the highest expectation level being that on integrity and self-reliance at 4.1. The lowest overall importance mean score was of cross-cultural skills at 3.0, within the range of “Somewhat Important”. It is not a surprise that the employers had high expectation on all subsets of skills within personal attributes as unlike skills such as the English language skills, these skills are the foundation for any person to develop personally and professionally in all contexts.

Regarding the satisfaction levels of the employers, the data show that within the range of “Very Satisfied” were the ratings for integrity, responsible, interpersonal skills and self-reliance at 3.59, 3.56, 3.49 and 3.44, and the ratings for the other subsets of skills were within the range of “Somewhat Satisfied” at 3.33 for adaptability and 2.87 for cross-cultural skills, respectively. This implies that in terms of this set of skills, HOU postgraduates can be said to have satisfied the requirements of the workplace in most subsets of skills. The low satisfaction level of the employers on cross-cultural skills of HOU postgraduates may be not a story limited only to HOU, given that the integration of Vietnam into the world has been going on for quite a short period of time. Anyway, this is a weak area that the university should address.

As also observed in Table VI, the gap between the ratings of the employers on importance and satisfaction was highest for self-reliance, integrity and adaptability at 0.66, 0.51 and 0.41, respectively. Therefore, apart from cross-cultural skills, it is necessary for HOU’s postgraduates to improve self-reliance, integrity and adaptability within personal attributes.

4.2.4 Employers’ views on organizational skills. All skills in organizational skills refer to skills one needs to be a leader or manager; thus, they seem to be challenging to the employees. As shown in Table VII, the employers expressed their highest expectation on productivity, time management and organization and planning, with the ratings for these

| Section C: personal attributes | Importance | Satisfaction |
|-------------------------------|------------|--------------|
| 13. Responsible: capacity to achieve targets and meet deadlines | 3.92 | 0.41 | 3.56 | 0.37 | 0.36 |
| 14. Integrity: capacity to observe professional and general ethical standards | 4.1 | 0.43 | 3.59 | 0.37 | 0.51 |
| 15. Self-reliance: capacity to work autonomously | 4.1 | 0.43 | 3.44 | 0.36 | 0.66 |
| 16. Adaptability: capacity to be flexible and adaptable | 3.74 | 0.39 | 3.33 | 0.35 | 0.41 |
| 17. Interpersonal skills: capacity to communicate and relate well with others | 3.67 | 0.38 | 3.49 | 0.36 | 0.18 |
| 18. Cross-cultural skills: ability to work in a multicultural and international context | 3.0 | 0.34 | 2.87 | 0.34 | 0.13 |
subsets of skills being within the range of “Very Important” at 4.13, 3.97 and 3.92, respectively. The ratings for leadership and decision-making skills were within the range of “Somewhat Important”. It is quite surprising that the rating for entrepreneurial skills was at only 2.26, falling into the range of “Not Very Important”. The low rating for entrepreneurial skills may be attributed to the fact that entrepreneurship has not much been promoted in Vietnam, and the economy of Vietnam is still heavily dominated by state own enterprises.

In terms of satisfaction, the satisfaction levels of the employers on the subsets of skills within organizational skills were all below the level “Very Satisfied”. This means that more emphasis should be given to all of these subsets of skills, especially for entrepreneurial skills.

Regarding the gap between importance and satisfaction, it is alarming that the gaps for productivity, time management and organization and planning, skills that were rated as more important, were big at 0.75, 0.79 and 0.66, respectively, and the gaps for these skills were much bigger than the gaps for other skills. Although the gap for entrepreneurial skills was “minus”, meaning that the satisfaction level was higher than the importance level, the rating for this subset of skills was low, falling into the range of “Not Very Satisfied” at only 2.54, then the “minus” does not mean that this is a strong area.

In sum, more emphasis should be given to all of these subsets of skills, especially for entrepreneurial skills, productivity, time management and organization and planning.

4.2.5 Employers’ views on technical knowledge and skills. In terms of importance, Table VIII shows that within the range of “Very Important” were the subsets knowledge-related regulations and policies at workplace, capacity to use knowledge and skills in the workplace context and lifelong learning, with the ratings of the employers being at 3.92, 3.82 and 3.72, respectively. The ratings for the other three subsets of skills, namely general knowledge of surrounding environment, cross-cultural skills and knowledge of international standards and related bodies were lower, within the range of “Somewhat Important” at 3.08, 2.67 and 2.64, respectively.

There was a light fall in overall satisfaction mean scores on most subsets of skills, except for knowledge of international standards and related bodies. Within the range of

| Section D: organizational skills | Importance | Satisfaction |
|---------------------------------|------------|--------------|
|                                 | X          | SD           | X          | SD           | Gap          |
| 19. Organization and planning   | 3.92       | 0.41         | 3.26       | 0.35         | 0.66         |
| 20. Time management             | 3.97       | 0.42         | 3.18       | 0.35         | 0.79         |
| 21. Productivity                | 4.13       | 0.44         | 3.38       | 0.36         | 0.75         |
| 22. Leadership                  | 2.95       | 0.34         | 2.87       | 0.34         | 0.08         |
| 23. Decision-making skills      | 2.95       | 0.34         | 2.77       | 0.35         | 0.18         |
| 24. Entrepreneurial skills      | 2.26       | 0.39         | 2.54       | 0.36         | −0.28        |

Table VII. The rating of employers on organizational skills

| Section D: technical knowledge and skills | Importance | Satisfaction |
|------------------------------------------|------------|--------------|
|                                          | X          | SD           | X          | SD           | Gap          |
| 25. Lifelong learning: capacity to develop knowledge and skills | 3.72       | 0.38         | 3.33       | 0.35         | 0.39         |
| 26. Capacity to use knowledge and skills in the workplace context | 3.82       | 0.40         | 3.38       | 0.36         | 0.44         |
| 27. Knowledge-related regulations and policies at workplace | 3.92       | 0.41         | 3.54       | 0.37         | 0.38         |
| 28. Knowledge of international standards and related bodies | 2.64       | 0.35         | 2.64       | 0.35         | 0            |
| 29. General knowledge of surrounding environment | 3.08       | 0.34         | 3.05       | 0.34         | 0.03         |
| 30. Cross-cultural skills: ability to work in a multicultural and international context | 2.67       | 0.35         | 2.74       | 0.35         | −0.07        |

Table VIII. The rating of employers on technical knowledge and skills
“Very Satisfied” was only the rating for knowledge-related regulations and policies at workplace; the ratings for all other skills were within the range of “Somewhat Satisfied”. This means that all though HOU postgraduates had satisfied the rudiments of the workplace to some extent, there were still areas for improvement for all subsets of skills within technical knowledge and skills.

In terms of the gap between importance and satisfaction, the data again show the phenomenon that in most cases, the gaps for more important skills were bigger than the gaps for less important skills, with the gaps for “Knowledge-related regulations and policies at workplace”, “Capacity to use knowledge and skills in the workplace context” and “Lifelong learning”, the skills that were rated as more important, being at 0.38, 0.44 and 0.30, respectively, and the gaps for “General knowledge of surrounding environment”, “Cross-cultural skills” and “Knowledge of international standards and related bodies”, the skills that were rated as less important, being at 0.03, −0.07 and 0.00, respectively. This means that, as for most subsets of skills aforementioned, HOU postgraduates have to improve both “more important” and “less important” skills; they have to improve “more important” skills because these skills are “more important” and because the gap between importance and satisfaction are big.

In sum, the skills that the employers considered as important, the skills that the employers considered as satisfactory and the skills that HOU postgraduates need to improve are summarized in Table IX.

5. Conclusion
After analyzing the employers’ rating on the five sets of skills identified in the framework designed by the OU5 research team (2017), this study has identified the employers’ needs and requirements on the twenty-first century skills and qualities of postgraduates in general.

| Skills                        | Important skills                                                                 | Satisfactory skills                  | Skills that should be improved                                                                 |
|-------------------------------|----------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------|
| 1. Foundation skills         | ICT literacy skills                                                              | ICT literacy skills                  | ICT literacy skills                                                                              |
|                               | Information literacy                                                            | Information literacy                 | Information literacy                                                                              |
|                               | Numeracy skills                                                                 | Numeracy skills                      | Numeracy skills                                                                                  |
| 2. Professional competencies | Collaboration skills                                                             | Critical thinking and problem solving| Research skills                                                                                  |
|                               | Analytical skills                                                                | Collaboration skills                 | Creative and innovative thinking                                                                 |
|                               | Conceptual skills                                                                | Conceptual skills                    | Analytical skills                                                                                 |
| 3. Personal attributes        | Integrity                                                                        | Integrity                            | Self-reliance                                                                                    |
|                               | Self-reliance                                                                    | Responsible                         | Integrity                                                                                        |
|                               | Responsible                                                                      | Interpersonal skills                 | Adaptability                                                                                     |
| 4. Organizational skills      | Productivity                                                                     | Productivity                         | Productivity                                                                                     |
|                               | Time management                                                                  | Organization and planning            | Organization and planning                                                                        |
|                               | Organization and planning                                                        | Time management                      | Time management                                                                                   |
| 5. Technical knowledge and    | Knowledge-related regulations and policies at workplace                           | Knowledge-related regulations and     | Capacity to use knowledge and skills in the workplace context                                    |
| skills                        | Capacity to use knowledge and skills in the workplace context                    | policies at workplace                | Lifelong learning                                                                                 |
|                               | Lifelong learning                                                                | Lifelong learning                    | Knowledge-related regulations and policies at workplace                                            |

Table IX. Prominent skills and qualities for HOU postgraduates
and the employers’ satisfaction on HOU postgraduates in particular. The conclusions are drawn as follows:

- In the five sets of skills, the employers determined the following as typical sets of twenty-first century skills: the employers seemed to prefer numeracy skills and ICT literacy skills as the most important skills within the set of foundation skills; collaboration skills and analytical skills as the most important skills within professional competencies; integrity and self-reliance as the most important skills within personal attributes; productivity, time management and organization and planning as the most important skills within organizational skills; lifelong learning, capacity to use knowledge and skills in the workplace context and knowledge-related regulations and policies at workplace as the most important skills within technical knowledge and skills.

- The results for the overall employer satisfaction confirm that employers highly appreciate HOU’s postgraduates in numeracy skills and ICT literary skills for foundation skills; collaboration skills and analytical skills for professional competencies; integrity, responsible, interpersonal skills for organizational skills; productivity, time management and organization and planning with technical knowledge.

- The most significance of the study is that HOU’s postgraduates could identify their weaknesses to overcome. For foundation skills, they need to upgrade information literary and English language oral communication skills. For professional competencies, creative and innovative thinking, analytical skills, conceptual skills, collaboration skills and research skills should be enhanced. For personal attributes, HOU postgraduate need to improve self-reliance, integrity and adaptability skills. For organizational skills, they should strengthen productivity, time management and organization and planning skills. For technical knowledge and skills, knowledge-related regulations and policies at workplace, capacity to use knowledge and skills in the workplace context and lifelong learning should be advanced.

Hence, the findings of this study may give some implications for HOU management board, for employers as well as for HOU postgraduates as follows.

### 5.1 For HOU management board

- learning contents related to communication, negotiation and foreign languages skills should receive more attention from faculties and should be enriched in the learning programs;
- the university should promote relations with the corporate sector to deliver training programs and scientific research activities as mandated in the circular 2017/TT-BGDĐT, dated 4 April 2017 by the Ministry of Education and Training; and
- the faculty of postgraduate studies should co-operate with specialist faculties to organize seminars, workshops, etc. on issues and problems related to training programs.

### 5.2 For employers

- employers should strengthen their relationship with the university and create favourable conditions for experts to go to the university to share their knowledge and experience with postgraduate learners and for postgraduate learners to go to their businesses for internship and field trips; and
- employers should involve themselves in the development of programs and curricula to make them more practical.
5.3 For postgraduate learners

- Postgraduate learners should know well the needs of employers. The best way for postgraduate learners is that they should be more active in attending seminars, workshops, etc. organized by various businesses. They should also pay more attention to skills such as problem solving, public speaking, time management, etc. Besides, they should actively set up relations with the corporate sector to get to know more about the world of jobs.

Acknowledgement

This study was part of a larger study by OU5 (a group of five open universities in ASEAN), then it may be of use as a source of reference to identify common qualities and skills for the open universities in the group, aiming at “regional postgraduates” for ASEAN. This study was sponsored by Hanoi Open University as an attempt to contribute to a team research of OU5, the Employer Satisfaction Research. First of all, the author would like to express sincere gratitude to the Management Board of HOU for their giving the opportunity to take part in the research, and for their encouragement and supports during the study. Second, author’s thanks also goes to the members of the OU5 Employer Satisfaction Research group, including Sumalee Sungsri from Sukhothai Thammathirat Open University, Thailand; Thirumeni T Subramaniam from Open University Malaysia, Malaysia; and Isti Rokhiyah from Universitas Terbuka Indonesia, Indonesia, who have shared their ideas, advice and comments, which were valuable to complete this study.

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