Research Paper

Designs of Open and Distance Learning (ODL) Education: Case of Malaysia Industry-Focused Doctoral Studies

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ABSTRACT

The innovation of higher education assumes a larger role in national economic development which has significant contributions to private and public sectors. Open and distance learning education (ODL) received good feedback from many people who aim to pursue postgraduate studies. However, many graduates are found to have difficulty in fulfilling the industry expectation and societies are concerned about marketability of industry-focused doctoral studies. There is an educational dissonance whereby the quality of graduates is getting lower and they have no industrial needed knowledge to enhance business and organization performance. Data is collected from 100 employers based at Kuala Lumpur, Malaysia. Findings from this study are important to provide guideline and vision for education provider to design a better industry focused educational system.

Key words: Doctoral studies, industry-focused, marketability.

INTRODUCTION

Industry driven doctoral education curriculum is becoming important in today society which brings research to a new era. Research done by Finish Metals and Engineering Competence Cluster (FMECC) has proven that this curriculum is capable to create new solutions and implementing results effectively to diverse industries. It can help to develop better opportunity for innovation (FIMECC, 2014). Besides, industry driven education can target the needs of organization as the Malaysia economy has significantly grown.

Open and distance learning (ODL) provided great opportunity for adult learners to pursue higher education especially in postgraduate studies (Carlsen et al., 2016). Many busy working adults are preferred to enroll in ODL study to balance their work-and-study life.

The innovation of higher education assumes a larger role in national economic development which has significant contributions to private and public sectors (Shaffer, 2015). Malaysia’s economy has grown in fast pace since year, 2010. It is one of the 13 countries identified by the Commission on Growth and Development that recorded the strong expansion in average growth rate. Its economy grew by 6% last year and continues to post solid growth rates (World Bank, 2015). The growth in economic development has boosted job opportunities in societies. Organization is looking for talents and professionals for better job-fit. According to Department of Statistic Malaysia (2015), the labor force participation rate was increased by 0.3% for March, 2015 and 0.8% higher when compared to year, 2014. Higher education institutions play a role as agent of transformation in Malaysia to face local and global challenges (UNESCO, 2012).

However, many graduates experience difficulties in getting better job. Besides, many of them are holding the jobs that do not correspond to their qualification and discipline. Minister of Higher Education (2015) figures out there are more than 500 institutions including universities, college universities and college etc with a total number of more than 748,797 students enrolled in higher education since year, 2010. Many countries are on
the track to knowledge-based economies to incorporate research and innovation into the organization to produce better outcome (Peters, 2011).

Doctoral is seen as one of the factors for competitive advantage which is not only for academic but also widely applies in multi-industries. University of British Columbia viewed the importance of graduate students as a trend for global job market. It is important to transfer technical skills to industry which 60 to 70% of Canadians with doctorate qualification do not pursue academic careers (Statistic Canada, 2011). There is educational dissonance whereby the quality of graduates is getting lower and they have no industrial needed knowledge especially for business and organization performance.

Issues found in ODL doctoral curriculum

Market demand for industry doctoral (for example, Doctor of Business Administration, DBA) is getting important in the process of national and organizational development. In this competitive environment, employers strive to survive by putting more effort on innovation. Knowledge is the key to enhance the performance and keep the organization competitive in fast-changing market conditions. Besides, employers need to produce value-added capabilities in human capital in order to strengthen the market position (Chang et al., 2012). Therefore, a well-designed industry doctoral education is very important in transforming more knowledgeable and skillful human resource.

Previous studies show that the demand for industry doctoral is growing in current market. According to the research done by Association of Universities and College of Canada (2011), the number of graduate students has significantly grown faster and the number of doctoral students increased globally. However, the educational development has been questioned by many employers due to the inability of graduates to apply the knowledge into their work. Employers prefer practical knowledge which can solve the business problems but not just the fundamental theories learnt from school. It can lead to graduate unemployment issue in Malaysia (UNESCO, 2012). Most of the graduates with little or no industrial or commercial experience have difficulties to apply the knowledge. National Graduate Employability Blueprint (2012 to 2017) prepared by Ministry of Higher Education of Malaysia mentioned the challenges identified by employers relation to their employees which “mismatch of skills” consisted of 30.2%, “inability to solve problems” 25.9% and “insufficient dept of skill knowledge” 23.8%. The concerns about the ability of graduates to work in organization has significantly increased in recent years due to some factors such as the competitive environment, rapid changing marketplace, production cost and resources scarcity. Therefore, there is the need to design and develop industry driven education to meet the employer's expectations.

Besides, the educational developers and academics need to understand the factors that contribute to the marketability of industry driven education and their implication for institutions, organizations and academic practice in order to develop better qualified graduates (Mills, 2009). The expansion of higher education affects the labor market especially the concerns about level of graduate unemployment (Ismail, 2011). The design of doctoral study in ODL education is very important to address this issue since more people are pursuing doctoral studies. Employers are preferring industry driven doctoral graduates and DBA has become a trend for many working adult especially senior executives and managerial personnel. This kind of doctoral education is aim at producing graduates who are prepared for challenges of real world by applying industry knowledge.

Objective and significance of this study

This study is important to address the significant factors of industry driven doctoral education to its marketability. It has been proven that higher education can lead to better national transformation. It also can improve the economic performance to enhance the global competitiveness. Employers are looking better talents by expecting graduates are able to apply industry knowledge. Therefore, the DBA graduates are becoming the good human resource for any organization. By understanding the factors that contribute to the marketability of doctoral graduates, it will be able to produce sustainable DBA graduates through the design of an innovative industry driven doctoral education curriculum. Gradually, the findings from the study can provide fundamental information and hopes to lay the groundwork for future research while also offering practical recommendations to educators and academics on how to deal with better curriculum design.

LITERATURE REVIEW

Industry driven doctoral education curriculum

Industry driven doctoral gives opportunity for researchers to resolve work related issues. This kind of postgraduate studies brought positive results to organizations by addressing the problems and come out with solutions for real situation. It also provides movement for sustainable growth of economy by contributing doctoral knowledge in problem solving. Besides, it is more application oriented to current industry and more inclined to knowledge enhancement. Industry driven doctoral may result in
better organization performance, effectiveness, efficiency and long term competitiveness (UUM, 2013). This doctoral education also focuses on the studies and research on industrial issues. Education development toward industry driven gets intention for most employers. Employers look at graduates’ contribution to concrete business problems and generate model that explain and apply into the specific problem (Graf, 2015).

**Doctor of business administration (DBA) and its marketability for graduates**

University of Liverpool (2015) stated that DBA is a professional doctorate and equivalent to PhD where it is more to advance professional practice. This doctoral program addresses practical business problem which is more preferable by employers. DBA has a very good career outlook in diverse sectors including private and public organizations, higher education, and research institutions etc. Graduates can involve senior managerial positions, academics, consultants and practitioners. According to the United States Department of Labor, Bureau of Labor Statistic (2015), DBA employment is expected to grow 11% from year, 2012 to year, 2022 in global market. This phenomenon is also applied in Malaysia employment (UNESCO, 2012). Besides, when looking into salary expectation, DBA graduate salaries depends on the industry and duties and can generally earn higher income. This survey is done by PayScale.com who focuses at global marketplace. DBA graduates are in high demand due to the leadership skills, business theories and decision making ability (Cadiz, 2015). Graduates also have wide job opportunities and better career improvement by applying the knowledge acquired from course.

**Independent variable (IV₁): Program structure**

**H₁₁:** Program structure is significantly influenced by the marketability of doctoral graduates.

Education providers applied product development strategy by modifying the product to meet with the expectations of industry. This modification is referred to the design of the program structure. Program structure always affects the quality of a particular course or study. The design of the program determines the standard and level of knowledge obtained by graduates. It decides the graduate’s ability to apply the knowledge into real industry. Therefore, the program structure is related to the marketability of DBA graduates. Industry driven education is also the road to success for all industries including manufacturing which has been a priority for the National Asphalt Pavement Association (Slater, 2013).

Employers believe that graduates can help the organization to change and enhance innovation to keep competitive. Some well known multinational corporations even sponsor their senior managerial personnel to pursue DBA or other industrial doctorate program (Bureau of Labor Statistic, 2015). They agree that DBA can help the organization to solve business issues and the solutions can lead to long term benefits. However, employers are looking for those graduates who can apply the industry knowledge but not just theoretical knowledge when dealing with business matters. It is also about the demand driven education and training for employability needed by graduates in order to possess strong knowledge for developing industry issue solutions that can enhance their marketability (UNIDO, 2011).

Program structure of industry driven education has strong relationship with marketability of graduates. There is a shift to develop industry based curriculum which can fulfill the requirements of business stakeholders at all levels in many advanced countries such as United States (Baumann et al., 2014). It also refers to the developing of competency based education from providers to help DBA graduates to be employed. Besides, in order to increase the marketability of graduates, many employers engage in curriculum development to help educators design better program structure that meets the industry requirements (United States Department of Education, 2012).

**Independent variable (IV₂): Employer readiness**

**H₂₁:** Employer readiness is significantly influenced by the marketability of doctoral graduates.

Employer readiness as regards hiring has strong relationship with marketability of DBA graduates. Employers decide the graduates’ employment by looking into several important factors. A survey done by the University of Washington (2012) as regards graduate level employment on global firms show that about 20% employers are likely to consider doctoral degree candidates. Besides business, most of the employers look for the doctoral graduates with major business ideas. In other words, DBA graduates are most likely to be chosen by global employers as compared to other doctoral majors. It was proven that the marketability of DBA graduates depends on employer readiness on the quality and industry knowledge acquired by graduates. When compared to other majors, business administration seems to have the largest contribution to employers due to its abilities to solve business and organizational issues.

Besides, the graduates’ marketability is also influenced by employers’ perception on return on investment (ROI) (Alton and Van Fleet, 2009). Graduates employment is viewed as high cost for employers in terms of high salary.
compensation. Therefore, employers make careful selection on doctoral graduates and this can affect their readiness. Many employers have the experience of selected graduates who are not capable to match their expectation. It has created a strong impact on graduates’ marketability.

According to the report prepared by St. John's University (2013), employee engagement in student career readiness is useful in enhancing employer’s readiness to hire graduates. Employees are encouraged to assist graduates in becoming more career oriented during internship. This will increase their career readiness and ability to meet with employers’ expectation. DBA is designed for organization senior executives by focusing on industry driven knowledge and skill. Research done by DBA graduates is useful in addressing industry issues and the solutions developed are useful to enhance organization performance. Therefore, this curriculum is preferred by the employer. The higher readiness of employer can lead to better marketability of DBA.

**Independent variable (IV	extsubscript{3}): Academic Performance**

\(H_{31}^{\text{3}}\): Academic performance is significantly influenced by the marketability of doctoral graduates.

Academic performance can affect the marketability of DBA graduates by looking at the graduates’ knowledge and applied skill requirements for employees’ readiness (Conference Board, 2006). The increase in educational level in labor force led to higher requirement and expectation from employers. Employers viewed professionalism, critical thinking, problem solving and applied skills as the criteria for employment.

Graduates academic performance can link to their analytical skills. DBA is a mix mode doctorate study whereby students are needed to go through some business related subjects and conduct a research that address the industry issues. It is a design of an innovative industry driven doctoral education curriculum. Therefore, all the subjects and research project are designed to understand and solve business problems. Graduates need to have strong problem solving skills to go through the assignment and research. If the graduates can achieve good academic performance, it can be concluded that they are exercising excellent problem solving skills in answering the assignments (Poropat, 2011). In other words, graduates with outstanding academic performance shows good analytical skills in contributing to develop solutions for business issues (Keister and Hall, 2010). Employers perceive that graduates can meet with their expectations by applying knowledge to enhance organization performance.

Besides, DBA graduates with good academic performance shows good self discipline. They need to go through some tough projects and research in order to complete the whole study. This hardship provided an opportunity to train their ability skills on problem solving, critical thinking, time management and other soft skills. It can enhance their marketability because employers might perceive these kinds of graduates are talents and beneficial to organization. Wenz and Yu (2010) found that graduates with higher academic performance are better for career specific skills. They are employers’ choice by having stronger marketability as compared to those with lower academic performance when there is lack of industry experience.

**PROPOSED CONCEPTUAL FRAMEWORK**

This framework identifies the relationship between the Independent Variables (IV) \(\text{IV}_1: \) Program Structure, \(\text{IV}_2: \) Employer Readiness, \(\text{IV}_3: \) Academic Performance\) and Dependent Variable (DV) \(\text{DV}: \) Marketability of DBA graduates\) (Figure 1).

**Figure 1. Proposed conceptual framework.**
**Table 1.** Multiple regression analysis: Model summary.

<table>
<thead>
<tr>
<th>Regression statistics</th>
<th>Variable</th>
</tr>
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<tbody>
<tr>
<td>Multiple R</td>
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<tr>
<td>R Square</td>
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<td>Adjusted R square</td>
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</table>

**RESEARCH METHODOLOGY**

Quantitative research was conducted in this study as it is often used to collect and analyze based on numerical data and generalize the results from large samples (Lodico et al., 2010). The target population for the study was employers hiring DBA graduates to fill up managerial positions. 100 companies from Kuala Lumpur, Malaysia are selected as the primary setting for this study due to higher concentration of companies in Kuala Lumpur. By using these relevant sampling locations, more accurate information could be generated from this survey. Questionnaires are given to the targeted respondents. Probability sampling was applied for this research and multiple regression analysis adopted to test the relationship between the independent variables and dependent variable by using SPSS (Table 1).

**DISCUSSION AND CONCLUSION**

The value of correlation coefficient (R value) for this study is 0.776 which fall under the range of ± 0.71 to ± 0.90. Therefore, the relationship between independent variables and dependent variable is high. Besides, independent variables can explain 59.7% of the variations in dependent variable.

Findings showed that program structure, employer readiness and academic performance have significant relationship with the marketability of DBA graduates. Therefore, ODL education providers considered those mentioned variables when designing their doctoral programs. Previous research found that the learning system is important in affecting the ODL students’ qualities (Musingafi et al., 2015). Therefore, in order to enhance the competitiveness of industry-focused doctoral studies, education providers can improve the learning environments such as ICT infrastructures, online supporting learning materials and getting more corporates’ feedbacks from various industries.

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