RELEVANCE OF INFORMATION TECHNOLOGY GRADUATES' COMPETENCIES TO THE INDUSTRY NEEDS

A Dissertation Presented to the Faculty of the Graduate School Southern Luzon State University, Lucban, Quezon, Philippines In Collaboration with Thai Nguyen University, Socialist Republic of Vietnam

In Partial Fulfillment of the Requirements for the Degree of **Doctor of Philosophy in Educational Management**

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APPROVAL SHEET

In partial fulfillment of the requirements for the degree of Doctor of Philosophy in Educational Management, this research entitled "RELEVANCE OF INFORMATION TECHNOLOGY GRADUATES' COMPETENCIES TO THE INDUSTRY NEEDS" has been submitted by Bui Ngoc Tuan (Future) and is hereby recommended for oral examination.

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INTRODUCTION

According to international assessment agencies on Information Technology and Communication, Vietnam has informantion technology and communication development index (IDI) ranking at 86 out of 161 nations and rank 4th position in Southern East Asia (2012). Networked Readiness Index (NRI) of Vietnam ranked at 84 out of 144 nations and 5th position in Southern East Asia in 2012. Regarding to information technology industry, Vietnam ranked at 8th worldwide on software processing activities (according to Tholon Corporation, 2011), stays on top ten nations in Pacific Asia and top thirty worldwide (according to report of Gartner Corporation in 2012). Vietnam has been highly considered on public service and application of information technology on State Agencies. For the norms of electronic Administration/Government, Vietnam has been classified at 4th position in South East Asia and 81 out of 190 nations in 2012.

Regarding human resource quality, Vietnam has ranked at 101 out of 161 nations in 2012 and highly considered on education qualification of mathematics and scientific subjects. Nowaday human resource on information technology is not only very limited in number in Vietnam, but it is also lack in the world. Now the world is in shortage of 4 million engineers on information technology (IT). And in Vietnam demand of humand resource on software industry (PM) has been drammatically increasing. From 2011 to 2015, Vietnam is estimated to need about 20.000 - 25.000 engineers on IT. While education and training capacity of human resource on information technology provides about 34.448 engineers, 41.048 ones in 2010 and 2012 respectively. In fact number of qualified IT enginners under employer's requirements are even much smaller.

According to employer's statistics database, Vietnamese IT engineers are very weak in communication skill, professional working style, and English proficiency. Moreover, about 64% of human resource is weak in group working ability. Thus they could not integrate and adapt to employer's standards after being recruited. Up to 71% graduation students have not adapted to technology advance change, 90% foreign language insufficient students. Therefore Vietnamese IT staffs could only utilise 60% their capacity and big obstacles for enterprise's recruitment.