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Perceived Value of ICT Skills within New Zealand Organisations

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Abstract

Today, information and communication technology (ICT) plays a critical role in economic growth. The ever changing technology and heavy investment in ICTs has resulted in increased demand for various ICT skills. In the last few decades, numerous studies have attempted to address issues related to ICT skill needs. However, a lack of standard classification of ICT skills has made the research outcomes inconsistent and difficult to compare. The research reported in this thesis seeks to overcome this lack of consistency by using a standard skills framework (SFIA, Skills Framework for an Information Age) to establish the demand for ICT skills within New Zealand. This study is intended to benefit the education sector and industry training organisations in planning their educational programs to align the industry needs. The research findings can also benefit the economic development agencies in assessing and resolving the ICT skill needs within New Zealand.

A questionnaire survey was adopted as the research instrument. The aim of the survey was to identify the demand for various ICT skills by ascertaining the perceived value of those skills to organisations in both the short and longer term. In total, 590 questionnaires were distributed to the organisations, randomly selected from Kompass Database via Massey University's website, with 100 or more employees nationwide. The total of 90 responses achieved a response rate of over 15%. With 16 not being considered due to the respondents being unable to answer the questions or incomplete questionnaires, 74 valid questionnaires were used in the analysis of the results. The research findings reveal that, in both the short and longer term, there is moderate to high demand for the majority of skills examined in this study. The top 3 skills that were rated as being the most valuable in both the short and longer term are "Managing the ICT function", "Application support" and "IT operations, network operation & network support". The 2 skills rated as being the least valuable in both timeframes are "Solution safety design and safety assessment" and "Marketing, sales & sales support". The skills that are directly related to technological specialties are in higher demand in the short term than the non-technological knowledge/skills. However, the non-technological knowledge/skills are seen as being more important than the direct technological skills in the longer term.

This study did not address the supply side of ICT skills in the industry. Therefore, the demand measured by ratings of values cannot be used as an indication of skills shortage. It is recommended that a study on supply of the same skills (preferably using the same standard skills framework) will be beneficial as it identifies the areas of shortage that should be planned for.

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