

Exploring Employer Expectations in the Software Development Industry in Sri Lanka

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Introduction

The sustainable development process needs the establishment of basic economic and social institutions necessary for economic growth (Rutherford, 2002). Higher education plays a critical and prevailing role. UNESCO (2005) mentions that ‘education for sustainable development’ has become a hot topic and it “empowers people to change the way they think and work towards a sustainable future”. Furthermore, higher education gives knowledge and understanding along with competencies, where graduates will learn how to work towards sustainable development while achieving all their goals and targets. With the growth of globalization, new development approaches incorporate software development around the world and encourage engineering and management practices. In the global software development environment, employability of new IT graduates always depends on the knowledge and competencies they learn through information technologies. There are several studies conducted regarding gap between the expectations of employers and employees, but no studies have been done to explore how these competencies affect the performance expectations of employers in the Sri Lankan context.

In contrast to individual learning, team work is seen as a vital aspect of the software development industry. Noll et al. (2016) examined a global teaming model for the governance of global software development, which focuses on a system of governance for working teams. They highlighted how team integration can be influenced by the practices of each team. Mukhtar et al. (2009) found that there is a close relationship between employability and

employers' general performance expectations. There is always a mismatch between the qualification of computing graduates and the expectations of computer industry. Akman and Turhan (2018) suggest that expectations of employers in individual and teamwork settings have a significant effect on general performance expectations of the employers and this study investigate employers' performance expectations of new IT graduates' competencies in individual and teamwork settings for software development (Akman and Turhan, 2018). The study revealed that employers perceive significant diversity existing in competencies within individual and teamwork settings in terms of adapting to new software development methods, using time and experiences gained in undergraduate projects effectively (Akman and Turhan, 2018).

Objectives

The objective of this study is to examine the influence of individual work expectations and team work expectations on employers' general performance expectations for new IT graduates in the software development industry in order to achieve quality IT education for sustainable development in Sri Lanka.

Methodology

A sample of 120 employers such as IT unit/project managers or senior IT professionals were selected and 8 outliers were removed. Simple random sampling method was used to select the research participants for the study. A structured questionnaire was developed to gather primary data from employers in the software development industry and for the purpose of examining how individual and teamwork expectations influence employers' general performance expectations. A 5 point Likert scale was used with 1 = "strongly agree" and 5 = "strongly disagree". Descriptive analysis was used, as was Multiple Regression analysis using General Performance Expectation (GPE) as the dependent variable (Y). Sample size was 112 for multiple linear regression and the equation can be given as follows:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 D_i + u_i \quad (1)$$

Where, Y: General Performance Expectation (GPE), X_1 : Individual Work Expectation (IWE), X_2 : Teamwork Expectation (TE), u_i : error term. The study included one qualitative variable as a dummy variable in the multiple regression model. D is preference for specific university (Preference), preferred = 1, otherwise 0.

Results and Discussion

The model summary of the multiple regression analysis shows that R^2 is 0.63 and explains the overall model fit of the variables. That can be interpreted as 63% of the variance in GPE can be explained by the combination of individual work expectation, teamwork expectation and preference of specific university. The ANOVA results yields that the level of significance and multiple regression model is significant at the 5% significant level ($p < 0.05$), which indicates that model is a right fit for the data. Furthermore, the findings yield that individual work expectation and teamwork expectation are statistically significant at the 5 % level. However, employers’ preference for specific university is not significant at the 5 % level.

Table 1: Results of multiple regression analysis

Variable	Coefficient	Std. Error	t	P value
Constant	0.416*	0.184	2.259	0.026
X_1	0.267*	0.084	3.168	0.002
X_2	0.570*	0.088	6.469	0.000
D_1	0.097	0.159	0.609	0.544

Note: * 5 % significance level

As indicated in Table 1, using unstandardized coefficients, the regression model can be generated as below:

$$\hat{Y}_i = 0.416 + 0.267X_{1i} + 0.570X_{2i} + 0.097D_i$$

The results from the analysis shows that 71% (80 employers) of the sample shows preference for specific universities, while 29% (32 employers) of the sample is do not prefer specific universities. Using five-point Likert-scale, among the 80 employers, 67% of employers preferred graduates from local public universities. Furthermore, 61% of employers responded as preferring graduates from local private universities. However, employers’ preference for

graduates from foreign universities is neutral. It represents 43% and 42% respectively. Moreover, out of 32 employers, which means employers who do not prefer a specific university also responded as preferring graduates from local public universities by representing 75%, and 56% preferred graduates from local private universities. Employers' preference for graduates from foreign universities is neutral at 50% and indicates that 16 of employers' preference for foreign university graduates is moderate while other 16 responded as preferred and least preferred.

Conclusion

The findings indicate that IWE and TE tend to be vital for the employers' GPE regarding new IT graduates in the software development industry. As the objective of this study is to examine the influence of individual work expectations and team work expectations on employer's general performance expectations regarding new IT graduates, in order to achieve quality IT education, it is clearly visible that employers are paying keen attention on the new IT graduates' competencies in order to hire them. Higher education should be of quality in order to create a graduate full of potential and competencies so that they can be hired by employers which will support the the country's development. Consequently, as UNESCO (2005) mentioned that quality of education "empowers people to change the way they think and work towards a sustainable future"; so employers will work towards a sustainable future while supporting the development of the country.

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