Review Article

Satisfactions of Employers with Graduates from Thainguyen University

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Abstract - *Competitive pressure due to the increase of higher education institutions in both central cities and in localities, causing many difficulties in recruitment for regional universities in Vietnam. Therefore, making employers satisfy with graduates plays more and more important for the development of regional universities. Empirical research with 400 employers employing recent graduates from Thainguyen University, one of the biggest regional universities in Vietnam, was conducted to evaluate employers' satisfaction with graduates. This is an important basis for the university to evaluate the quality with market orientation and seek solutions to improve training quality. The research results show that all of the graduate' skills did not meet the requirements of employers. Especially, adaptive skills and Technical skills are required higher while they assess low satisfaction than other skills.*

Keywords – *Employers, Quality, Satisfaction, Skills.*

I. INTRODUCTION

In the context of today's world, the impact of the globalization process, the transition to a knowledge-based economy, the 4th revolution in information technology and communication has been creating pressure for the education system to change in training - training and provide the human society with labor force who are capable of teamwork, citizenship, leadership, energy dynamic and creative ... in accordance with the needs of modern society. In addition, Education 4.0 will require universities to change in thinking and approach to the university model: Universities are not only a place for training, research but also a center for innovation to solve practical problems, bring value to society.

Thainguyen University is one of the biggest universities in North Vietnam, with about eight thousand to ten thousand graduates each year (2017: 9,770; 2018:9,837; 2019: 8,451). By the end of 2019, TNU had 19 members, including 07 universities, 01 colleges, 02 belonging faculties, 01 Division, 08 supporting units for training and scientific research. TNU has a total of 4,146 staff, including 2,621 lecturers, with 154 professors and associate professors, 712 PhDs.

The decreasing trend of annual enrolment rate in most of the members recent years has a great impact on the prestige, the development of the university, and its current position in the system of training establishments of the whole country. To cope up with the challenges of change in the current context of integration, improving the quality of training, ensuring that graduates are best met the needs of the society.

Satisfaction surveys can be used as a quality management mechanism to generate data and information as a "factual approach to decision-making" to continually improve universities quality (Manatos et al., 2016). Therefore, this research is done to aim at analyzing the employer's viewpoints in assessing their satisfaction with graduates from Thainguyen University.

II. LITERATURE REVIEW

In particular, with education and training services, employers often consider as customers of training courses and users of graduates and seldom as co-operators in education and training programs. Therefore, when studying employers' satisfaction, researchers often mention satisfaction with courses for enterprise and satisfaction with graduates.

According to Harvey and Green (1993), employers place importance on five broad areas of graduate attributes: knowledge, intellectual ability, ability to work in a modern organization, interpersonal skills, and communication.

Murray and Robinson (2001) argue that employers need graduates to have three sets of skills: academic skills, personal development, and working skills.

Salleh, Yusoff, Harun, and Memon (2015) focused on identifying the soft skills of graduate architects deemed important by the industry and gauging their satisfaction with the level of skills possessed by the graduates. The results of a survey of professional/senior architects from 65 architectural firms suggested that proficiencies in the English language (in terms of oral, written, oral presentation, and written presentation) were rated as the most important skills for graduate architects. The findings further revealed that the employers were least satisfied

with the graduates' negotiation skills and analytical and critical thinking. These results were very useful in recognizing employers' expectations of soft skills and identifying gaps that exist in the quality of soft skills among graduate architects.

Randy A. Tudy (2017) study aimed to determine the satisfaction of employers on the performance of new college graduates of Cor Jesu College, Philippines. It employed a descriptive research design. Results revealed that all 19 skills (Specific job-related knowledge, Specific job-related skills, Oral communication, Written communications, Comprehension, Math skills, Computer skills, Critical thinking, Problem-solving, Research and analysis, Teamwork, Organization and planning, Time management, Quality of Work, Productivity, Creative and Innovative, Adaptable, Responsible and Character) received the highly satisfactory rating. Moreover, it can be argued that technical skills, such as computer skills and soft skills (character), were among the top skills that the employers recognized among the graduates of Cor Jesu College. The results affirmed the effectiveness of the school's rigid training in response to the skills needed in the industry.

At the national level, there are also a number of countries with developed education conducting surveys on the satisfaction of stakeholders with the quality of training services. For example, Australia's annual national survey assesses students' and employers' perceptions of the training quality in comparison with recruiting requirements and strong or weak skills in recruiting students in Australia. Thousands of employers have interviewed about their satisfaction with graduates for five groups of skills: i) foundation skills – general literacy, numeracy, communication skills and the ability to investigate and integrate knowledge; ii) adaptive skills – the ability to adapt and apply skills/knowledge and work independently; iii) collaborative skills – teamwork and interpersonal skills; iv) technical skills – application of professional and technical knowledge and standards; employability skills – the ability to perform and innovate in the workplace.

III. RESEARCH MODEL

Basing `on factors in the literature review, the study used the model in Fig 1 to investigate the satisfaction of employers with graduates from Thainguyen University.
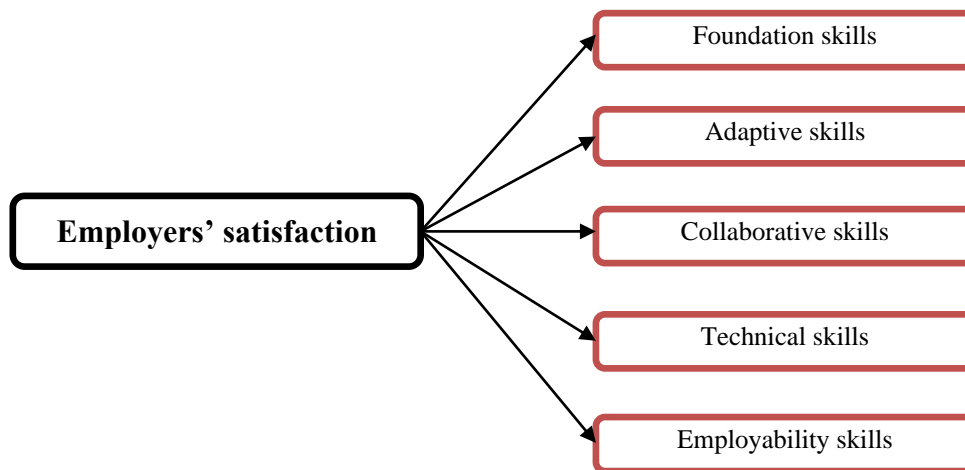

Fig. 1 Research model

IV. METHODOLOGY

Sample respondents:

Employers who recruitment graduates in recent 2 years from 5 universities members of TNU: Thainguyen University of Education (TNUE), Thainguyen University of Technology (TNUT), University of Medicine and pharmacy (TNU- UMP), University of Agriculture and Forestry (TNUAF), University of Economics and Business Administration (TUEBA).

Sample size

Because the size of the employers that using graduates from TNU was not available, the sample size of the recruiter group was calculated using the following formula:

n is the sample size
e is the accepted error (5%)

$$n = \frac{z^2(p.q)}{e^2}$$

z is the distribution value with chose reliability level. If the reliability level is equal to 95%, the z value was 1.96.
p is the estimated percent of the sample in population
q=1-p
It is usually estimated with 50%/50%, and this is the biggest probability of sample in the population

Using this formula for computing sample size, the number of samples is 385. With a backup probability of 10% of questionnaires can be rejected due to unsatisfactory requirements, the authors decided to use 420 questionnaires in the official investigation to prevent situations where some questionnaire sheets had to be removed due to the lack of information.

Due to the fact that the number of the employers that using graduates from each university in TNU can't be count exactly, 85 employers using graduates from 5 universities of TNU were chosen randomly according to managed list of the universities.

Instruments: A questionnaire was used as the research instrument. The first part collects general information of employers (including individual and organization information of respondents). Secondly, employers were requested to assess the importance of 5 main skills and their satisfaction with graduates across five Likert scales: (1) Foundation skills – general literacy, numeracy and communication skills and the ability to investigate and integrate knowledge; (2) Adaptive skills – the ability to adapt and apply skills/knowledge and work independently; (3) Collaborative skills – teamwork and interpersonal skills; (4) Technical skills – application of professional and technical knowledge and standards; (5) Employability skills – ability to perform and innovate in the workplace.

Data processing: The collected data was coded, entered, and analyzed by Excel and SPSS 22.0.

Sample characteristics

After encryption and data filtering, 8 answer sheets were deleted because of a lack of lots of answers, and answer sheets of 412 respondents were retained. The characteristics of the sample are shown in Table 1.

Table 1. Sample characteristics

Legal status	Frequence	Ratio (%)
Limited Co.	121	29.4
Joint stock Co.	86	20.9
State owner enterprises	43	10.4
State organization	86	20.9
Private	42	10.2
Foreign enterprise	26	6.3
Others	8	1.9
Total	412	100.0
Field	**Frequence**	**Ratio (%)**
Business and commercial	95	23.1
Education	72	17.5
Health care	41	10.0
Agriculture and environment	43	10.4
Architecture and Building	24	5.8
Society and culture	16	3.9
Technology	41	10.0
State management	57	13.8
Sciences	18	4.4
Others	5	1.2
Total	412	100.0

Source: Research result

Most of the employers' respondents are from Limited companies (29.4%); Joint-stock Companies (20.9%), State organizations (20.9%), and DTS and DTY have more graduates working in State organizations than others because they work in education and healthcare services, two services which are supplied mostly by State Organizations.

The employer respondents of this study are in Business and commercial (23,1%), Education (17.5%), and State management (13,8%). It's a result of the real situation that many graduates have to work in positions that are not suited with their major in university.

V. RESULTS AND DISCUSSIONS

A. Importance of graduate's skills

In five groups of skills, Adaptive skills and Technical skills are assessed as more important than other skills. Collaborative skills and Foundation skills are assessed as less important than other skills.

Table 2. Importance of graduate's skills

Variable	Mean	Std. D
Foundation skills	4.06	.59085
Adaptive skills	4.50	.67813
Collaborative skills	4.04	.53361
Technical skills	4.61	.51594
Employability skills	4.23	.46175

Source: Research result

B. Satisfaction with graduate's skills

In five groups of skills, Technical skills are assessed as the best skills of graduates from TNU (3.73). Employability skills and Adaptive skills are assessed less satisfaction than other skills.

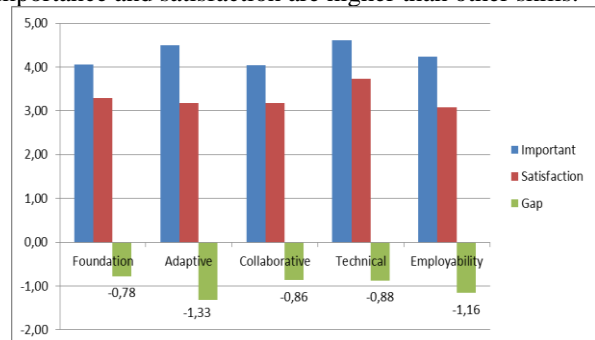**Table 3. Satisfaction with graduate's skills**

Variable	Mean	Std. D
Foundation skills	3.28	.58317
Adaptive skills	3.17	.76004
Collaborative skills	3.18	.61998
Technical skills	3.73	.74103
Employability skills	3.07	.81324

Source: Research result

C. Difference in assessing the importance and satisfaction with graduates' skill

Results of the research show that all of the graduate' skills did not meet the requirements of employers (Fig 2).

Technical skills are required highest (4.61) and also have been assessed higher than other skills (3.73). Adaptive skills and employability skills are required rather high but have been assessed low, so the gap between the importance and satisfaction are higher than other skills.

Fig. 2 Difference in assessing the importance and satisfaction with graduates' skill

Source: Research result

Table 4 shows that most employers require more about Adaptive skills and Technical skills than other skills. Employers hiring graduates from TNUE and TUEBA ask for Foundation skills higher than others. Employers hiring graduates from TNUE and TNU-UMP ask for Adaptive skills higher than others. Employers hiring graduates from TNU-UMP and TNUAF ask for Technical skills higher than others. Employers hiring graduates from TNU-UMP and TUEBA ask for Collaborative skills higher than others. Employers hiring graduates from TNUAF and TUEBA ask for Employability skills higher than others.

Table 4 also shows that employers who require more skills often assess satisfaction more strictly than others.

Adaptive skills and employability skills are two skills that employers assess less satisfaction than others skills and have a bigger gap to the requirement of them (in all members of TNU, the gap are bigger than 1.0). Members of TNU need to discuss with employers more and take care of improving these skills in their programs in the near future.

Table 4. Employers' satisfaction with skills of graduates from TNU members

	Univ	TNUE	TNU-UMP	TNUT	TNUAF	TUEBA
Foundation skills	Important	4,18	4,02	4,09	3,94	4,11
	Satisfaction	3,25	3,30	3,21	3,31	3,30
	Gap	-0,92	-0,72	-0,88	-0,63	-0,81
Adaptive skills	Important	4,58	4,58	4,45	4,36	4,50
	Satisfaction	3,03	3,35	3,27	3,10	3,17
	Gap	-1,55	-1,23	-1,18	-1,26	-1,33
Technical skills	Important	4,08	4,06	4,02	3,98	4,17
	Satisfaction	3,31	3,19	3,09	3,16	3,20
	Gap	-0,76	-0,87	-0,92	-0,82	-0,97
Collaborative skills	Important	4,55	4,86	4,52	4,65	4,44
	Satisfaction	3,71	3,70	3,86	3,78	3,59
	Gap	-0,84	-1,16	-0,65	-0,87	-0,86
Employability skills	Important	4,16	4,22	4,14	4,36	4,29
	Satisfaction	2,93	3,17	3,12	3,05	3,06
	Gap	-1,24	-1,05	-1,02	-1,31	-1,23

Source: Research result

VI. CONCLUSION

The research results show that all of the graduate' skills did not meet the requirements of employers. Especially, adaptive skills and Technical skills are required higher while they assess low satisfaction than other skills.

Adaptive skills and employability skills are two skills that employers assess less satisfaction than others skills and have a bigger gap to the requirement of them. Members of TNU need to discuss with employers more and take care of improving these skills in their programs in the near future.

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