STUDYING THE TRAINING QUALITY AND STUDENTS' SATISFACTION TOWARDS THE FOURTH INDUSTRIAL REVOLUTION: A CASE OF LAC HONG UNIVERSITY

Dr. Le Thu Thuy[1] and Dr. Phan Thanh Tam[2]

[1]Graduate Faculty, Lac Hong University (LHU)
[2]Faculty of Management - International Economics, LHU

Abstract*: The 4.0 Industrial revolution has grown tremendously throughout the world affecting all sectors and fields of social life. Besides, the training of knowledge and skills for employees is also very different. Previously, LHU trained in-depth technical a branch, but now the boundaries between the branches are becoming increasingly blurred and interdisciplinary tendencies have become associated with information technology becoming popular. Therefore, the article objective is to study the training quality and students' satisfaction towards the industry 4.0 at Lac Hong University, Dong Nai province, Vietnam. The research results surveyed 400 students who are studying at LHU and answered 20 questions. The primary sources of data collected from July 2017 to March 2018 at LHU and simple random sampling technique. Hard copy distributed among 7.000 students of LHU. In addition, the researchers have statically results about the training quality and students' satisfaction.*

KEYWORDS: Training, Quality, Industry 4.0, Students, IT, LHU.

INTRODUCTION

We have been witnessing the rapid development and application of modern technologies from the fourth industrial revolution. The establishment of intelligent factories, digital factories, is managed through virtual systems based on digital technologies and the applications of the Internet. The 4.0 revolution has created a strong and comprehensive transformation of the growth model from width to depth. In particular, the shift from reliance on increased investment, exploitation of resource advantages, cheap labor to growth model with the main motivation is to increase productivity, efficiency production, competitiveness of economic sectors. Besides, the 4.0 revolution, no workers were seen with simple operations on the production and assembly lines, but instead the first Robots artificial intelligence machines. People will only be involved in monitoring and operating the production system and activities that require the skills and knowledge that machines can't replace. Therefore, in order to ensure the goal of providing high quality human resources to meet the requirements of a smart production base in the future. LHU requested education and training improvement activities. Drastically implement the transformation of the training model in the direction of actively grasp and catch up the trend and requirements of the labor market. Renovation of higher education and training to step up the application of information technology and digital technologies to teaching activities. The nature of industry 4.0 is based on digital technology and integrates intelligent and high technologies to create a mass change in technology, management and more. In particular, the Industry 4.0 will create major changes in labor supply and demand, posing challenges to the labor market as well as changes in labor structure. Therefore, training high quality human resources will be a matter of

urgency. LHU continues to improve the capacity and quality of teachers and administrators. Above mentioned things, the researchers chosen topic **"*Studying the training quality and students' satisfaction towards the Fourth Industrial Revolution*"** as a study.

LITERATURE REVIEW

Nowadays, the international integration is deepening, each country has many opportunities for socio-economic development, enhancing its position in the international arena. At the same time, there are many challenges and difficulties, especially challenges in the quality of human resources in the trend of increasing demand. We have to accept the "rules of the game" in general. In order to improve the competitiveness of each enterprise and the economy, the most powerful weapon for each country is to improve the quality of human resources, especially skills of workers to adapt to their needs and new bricks of intelligent plants... constantly increase labor productivity, improve efficiency. Therefore, training quality of human resources for the 4.0 revolution can't use the old "old model" but to renovate and improve the quality of vocational education, must necessarily be prioritized in each country's development strategy. In Vietnam, vocational education and training requires constant improvement of capacity and innovation. Education and training can't still use old methods, lack of interaction, lack of practical models of new production to train human resources. Strongly shift from training mainly to "supply" to "demand" training of enterprises and domestic labor markets; At the same time, it will increase the competitiveness in the international labor market and meet the requirements of integration in order to successfully achieve the objectives of the country's industrialization and modernization and international integration.

Thus, from now to 2020, education and training in Vietnam is in charge of improving the quality of human resources, meeting the requirements of the 4.0 revolution, contributing to improving national competitiveness; applying the training method based on implementation capacity; Training programs are designed mainly under modules and credit, creating favorable conditions for learners in accordance with their conditions and capacities, flexible adaptation of the labor market at home and abroad. We can see the concepts following:

Training quality

There are as many theories of training quality as there are writers. These different views of quality are often confusing and contradictory. For instance, (Abdullah, 2006) viewed training quality as a spectrum between two polar establishing acceptable criteria and standards of good performance. This definition focuses on performance-based and accepted criteria. Besides, the training quality of higher education has always been a top concern for many subjects whether or not they participate in the education process. In addition, (Benešová, 2017) showed that to the increasing number of learners, the decline in quality, the changing societal pressures and the competitive process make recruiters demand high quality education. Training quality is always a problem for governments and agencies, where education policy and educational research are planned. For many reasons, the quality of education has always been a major concern. According to (Abdullah, 2006) showed that the concept of quality is a relative concept. For each person, the concept of quality is different and so we often question the "quality of who". In each position, people perceive quality in different aspects. According to (Lagrosen, 2004) showed that students, employers, teaching and non-teaching staff, government and donor agencies, censors, auditors, assessors have their own definitions.

According to (Yin H. a., 2015) showed that the concept of quality. In fact, there are many ways of defining quality, but it can be grouped into five groups of qualities: quality is superior, is perfection, is fit for purpose, is worth the money, and is worth the conversion.

Students' satisfaction

There are a several findings of definition regarding to the concept or term "satisfaction" in the services and marketing literature. According to (Douglas, 2006) satisfaction is a pleasurable fulfillment which in general consumers are familiar that consumption completes some goal, desire and consequently this completion creates a pleasurable feeling. As for (Douglas, 2006) satisfaction refers to an alternate response that is centered on matching the result of the product with some standard set prior to the purchase and measured during or after consumption. On the contrary, (Ibrahim, 2014) describes satisfaction as a common evaluation based on the result of the product perceived after the purchase and compared with prospects prior to the purchase. Additionally, the term satisfaction has been researched thoroughly in many empirical studies through massive personal interviews and meetings with consumer groups. Satisfaction according to (Truong, 2016) comprises of three crucial elements which are first, a general affective response that varies in its intensity, secondly a focus on the choice of product, purchase or consumption and lastly, the moment of determination that varies according to different situations and duration in time. The term satisfaction itself creates a vast diversity within industry and societal perspectives and varies with regard to the object focus and level of specificity. According to (Douglas, 2006) satisfaction consists of levels of satisfaction with a product or service, purchase decision experience, performance attribute, consumption-use experience, department or store of the business organization, lastly with a pre-purchasing experience.

Human resources

There are a several findings of definition regarding to the concept or term "Human resources" in the human resource management literature. It plays an important part of developing and making a company or organization at the beginning or making a success at the end, due to the labor provided by employees. According to (Debnath, 2012) human resources are intended to show how to have better employment relations in the workforce. Also, according to (Lien, 2017) human resources are to bring out the best work ethic of the employees and therefore making a move to a better working environment. The development of human resources is essential for any organization that would like to be dynamic and growth-oriented. Unlike other resources, according to (Gallifa, 2010) human resources have rather unlimited potential capabilities. The potential can be used only by creating a climate that can continuously identify, bring to surface, nurture and use the capabilities of people. (Brown, 2011) studied that the lecturers and staffs of the university are sufficient soft skills to need for the management of the training and education. According to (Hadullo, 2017) studied that the lecturers and staffs of the university are sufficient major knowledge to need for the management of the training and education. And (Hill, 2003) studied that the lecturers and staffs of the university are sufficient information technology (IT) skills to need for the management of the training and education. (Sackey, 2016) studied that the lecturers and staffs of the university are sufficient research skills to need for the management of the training and education. (Douglas, 2006) studied that the lecturers and staffs of the university are sufficient English skills to need for the management of the training and education.

Training facility

There are a several findings of definition regarding to the concept or term "Facility or equipment" in the training services literature. According to (Yin H. L., 2014) showed that a training facility for adult professionals must have flexible and technologically-advanced learning environments that are safe, healthy, comfortable, aesthetically-pleasing, and accessible. It must be able to accommodate the specific space and equipment needs of the training program and curriculum. (Widaryanti, 2016) showed that a training facility for adult professionals must have flexible and technologically-advanced learning environments that are safe, healthy, comfortable, aesthetically-pleasing, and accessible. It must be able to accommodate the specific space and equipment needs of the training program and curriculum. According to (Sackey, 2016) support spaces geared toward adult needs, such as a business station that allows students to carry out some business functions during their training sessions, must be seamlessly integrated into the facility as well. Large-size rooms designed for lecture-style instruction, training and auditorium equipped with partitions to create smaller training venues at the university. (Hadullo, 2017) studied that multiple purpose medium-size instruction rooms and the seating configuration, the rooms may accommodate lecture-style instruction or encourage interaction in the form of roundtable discussions and teleconferences at the university. (Gallifa, 2010) explained that computer training rooms equipped with computer workstations and internet access for each student, staffs and lecturers at the university. Learning using telecommunication technologies like cable television, internet, satellites, and videotapes... at the university (Mtebe, 2014).

Technology capability

There are a several findings of definition regarding to the concept or term "Information technology" in the information technology literature. According to (Parpala, 2011) IT has created a society which expects instant results. This technological revolution has increased the rate at which information is exchanged between stakeholders. A faster exchange of information can benefit businesses as they are able to react quickly to changes within their operating environment. However, an ability to react quickly also creates extra pressure as businesses are expected to deliver on their promises within ever decreasing time scales. (Sackey, 2016) showed that the Internet is having a profound impact on the marketing mix strategy of organizations. Consumers can shop 24 hours a day from where ever they want and however they want via smart phones, laptops and tablets. Technology has become an indispensable tool for business, industry, and education. Many training courses are specifically designed to enhance a trainee's competency with new software and hardware. According to (Meštrović, 2017) explained that technology has even changed the way instruction is provided: from traditional live instructor-led courses to self-directed learning and individualized instruction. Distance learning using telecommunication technologies like cable television, Internet, satellites, and videotapes, is popular because it allows students from across the nation to participant in courses remote from the point of instruction. (Ibrahim, 2014) studied the pace of technological change is so fast that the average life of a computer chip is approximately 6 months. According to (Shah, 2012) studied that technology is utilized by all age groups, students are exposed to technology from birth and a new generation of technology savvy pensioners known as "silver surfers" have emerged. Technology will continue to evolve and impact consumer habits and expectations, organizations that ignore this will hinder their success. According to (Li, 2017) showed that many training facilities provide IT connection in only a few areas, like computer training rooms, working stations, research rooms and media

centers at the university. Internet access, and local area Networks, Wide-Area Networks, Wireless fidelity provided adequate equipment rooms and conduit runs for them at the university. According to (Mayoka, 2012) analyzed computer and internet connectivity at desks, as appropriate equipping fixed desks with under-top computers to ensure adequate sightlines between trainers and trainees at the university. All educational facilities, including training facilities have high-quality indoor environments to promote learning as well as training at the university (Sackey, 2016).

There are a several findings of factors regarding to the concept or term training quality in the services of educations. According to (Masoumi, 2012) a great deal of effort is required to make sure that skills development systems deliver both the quantity and the quality of training needed. Factors that are critical to supporting these aims include: IT, facilities, initial training, in-service learning, and working conditions for teachers, trainers, and directors of training institutions and master crafts persons to take on apprentices; up-to-date training courses, methods, facilities and materials; combining classroom and work-based training through formal apprenticeships and other learning ships; and, involving stakeholders in setting standards and assessing training results.

Table 1: Coding of the observed variables

Code	Human resources (HR)
HR1	LHU' lecturers and staffs are sufficient soft skills to need for the management of the training and education.
HR2	LHU' lecturers and staffs are sufficient major knowledge to need for the management of the training and education.
HR3	LHU' lecturers and staffs are sufficient IT skills to need for the management of the training and education.
HR4	LHU' lecturers and staffs are sufficient research skills to need for the management of the training and education.
HR5	LHU' lecturers and staffs are sufficient English skills to need for the management of the training and education.
Code	**Training facilities (TF)**
TF1	Large-size rooms designed for lecture-style instruction, training and auditorium equipped with partitions to create smaller training venues at LHU.
TF2	Multiple purpose medium-size instruction rooms and the seating configuration, the rooms may accommodate lecture-style instruction or encourage interaction in the form of roundtable discussions and teleconferences at LHU.
TF3	Computer training rooms equipped with computer workstations and internet access for each student, staffs and lecturers at LHU.
TF4	Learning using telecommunication technologies like cable television, internet, satellites, and videotapes... at LHU.
Code	**Technology Capabilities (TC)**
TC1	Many training facilities provide IT connection in only a few areas, like computer training rooms, working stations, research rooms and media centers at LHU.

TC2	Internet access, and local area Networks, Wide-Area Networks, Wireless fidelity provided adequate equipment rooms and conduit runs for them at LHU.
TC3	Computer and internet connectivity at desks, as appropriate equipping fixed desks with under-top computers to ensure adequate sightlines between trainers and trainees at LHU.
TC4	All educational facilities, including training facilities have high-quality indoor environments to promote learning as well as training at LHU.
Code	**Training quality (TQ)**
TQ1	The human resources affecting the LHU' s training quality.
TQ2	The training facilities affecting the LHU' s training quality.
TQ3	The technology capabilities affecting the LHU' s training quality.
Code	**Students' satisfaction (SS)**
SS1	The human resources affecting the students' satisfaction at LHU.
SS2	The training facilities affecting the students' satisfaction at LHU.
SS3	The technology capabilities affecting the students' satisfaction at LHU.
SS4	The training quality affecting the students' satisfaction at LHU.

(Source: The researchers' collecting data and SPSS 20.0)

Table 1 showed that there are 20 the observed variables: Human resources (HR) has 5 observed variables, training facilities (TF) has 4 observed variables, technology capabilities (TC) has 4 observed variables, training quality (TQ) has 3 observed variables and students' satisfaction (SS) has 4 observed variables.

METHODS OF RESEARCH

The research process is to find factors affecting training and students' satisfaction conducted in two phases following.

Phase 1: The researchers applied the expert methodology and based on 10 experts' consultation and based 10 lecturers as group discussions are to improve the scale and design of the questionnaire. The results of surveying 10 experts and 10 lecturers showed that the training quality affecting students' satisfaction. If LHU improves the training quality, students' satisfaction will increase. This study was conducted in the first phase, we created a list of possible factors gathered from the literature reviews as mentioned in the above studies.

Phase 2: This phase surveys samples 30 students in order to check the content and form of questionnaire. Hard copies of the refined questionnaires were directly delivered to on-site students during their studying times. The researchers took them less than 15 minutes to finish the survey. There are 400 students surveyed by hard copy distributed among 7.000 students of LHU. All data collected and coded, processed by SPSS 20.0. Finally, the researchers continued to analyze the descriptive statistics results about the training quality and students' satisfaction following:

RESEARCH RESULTS

The first step in turning data into information is to create a distribution. The most primitive way to present a distribution is to simply list, in one column, each value that occurs in the population and, in the next column, the number of times it occurs. It is customary to list the values from lowest to highest. This simple listing is called a frequency distribution. A more elegant way to turn data into information is to draw a graph of the distribution. Customarily, the values that occur are put along the horizontal axis and the frequency of the value is on the vertical axis. The frequency statistics results of students' information following:

Table 1: The frequency results of gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	181	46.5	46.5	46.5
	Female	208	53.5	53.5	100.0
	Total	389	100.0	100.0	

(Source: The researchers' collecting data and SPSS 20.0)

Table 1 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. The frequency results of genders showed 181 males with 46.5 percent and 208 females with 53,5 percent.

Table 2: The frequency results of studying major

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Economic students	104	26.7	26.7	26.7
	Other students	285	73.3	73.3	100.0
	Total	389	100.0	100.0	

(Source: The researchers' collecting data and SPSS 20.0)

Table 2 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. The frequency results of genders showed 104 economic students with 26.7 percent and other students with 73.3 percent.

Table 3: The frequency results of studying years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The first year	97	24.9	24.9	24.9
	The second year	148	38.0	38.0	63.0
	The third year	86	22.1	22.1	85.1
	The final year	58	14.9	14.9	100.0
	Total	389	100.0	100.0	

(Source: The researchers' collecting data and SPSS 20.0)

Table 3 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. The frequency results of genders showed studying year of students is from 25 percent for the first year, 38 percent

for the second year, 22 percent for the third year and the final year has 58 students with 15 percent.

Table 4: The frequency results of Human resources (HR)

Human resources (HR)	HR1	HR2	HR3	HR4	HR5
	Percent	Percent	Percent	Percent	Percent
Completely disagree	3.6	3.1	3.9	4.4	3.6
Disagree	9.3	9.5	11.6	10.3	12.6
Neutral opinion	32.9	30.3	30.8	32.9	34.2
Agree	45.5	43.4	43.4	45.5	43.7
Completely agree	8.7	13.6	10.3	6.9	5.9
Total	100.0	100.0	100.0	100.0	100.0

(Source: The researchers' collecting data and SPSS 20.0)

Table 4 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. The frequency results of human resources (HR) showed HR2 is 3.1 percent for completely disagree, HR1 is 9.3 percent for disagree, HR2 is 30.3 percent for neutral opinion, HR2 is 43.3 percent for agree and HR5 is 5.9 percent for completely agree.

Table 5: The frequency results of Training facilities (TF)

Training facilities (TF)	TF1	TF2	TF3	TF4
	Percent	Percent	Percent	Percent
Completely disagree	5.7	7.2	10.8	7.7
Disagree	12.1	13.4	13.1	13.4
Neutral opinion	35.7	35.7	35.0	35.5
Agree	41.6	39.3	37.3	39.3
Completely agree	4.9	4.4	3.9	4.1
Total	100.0	100.0	100.0	100.0

(Source: The researchers' collecting data and SPSS 20.0)

Table 5 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. The frequency results of training facilities (TF) showed TF1 is 5.7 percent for completely disagree, TF1 is 12.1 percent for disagree, TF3 is 35.0 percent for neutral opinion, TF3 is 37.3 percent for agree and TF3 is 3.9 percent for completely agree.

Table 6: The frequency results of Technology Capabilities (TC)

Technology Capabilities (TC)	TC1	TC2	TC3	TC4
	Percent	Percent	Percent	Percent
Completely disagree	4.6	3.6	4.4	6.4
Disagree	51.7	8.5	49.1	5.4
Neutral opinion	43.4	48.6	42.9	48.8
Agree	0	39.3	1.3	38.8
Completely agree	3	0	2.3	.5
Total	100.0	100.0	100.0	100.0

(Source: The researchers' collecting data and SPSS 20.0)

Table 6 showed that the frequency results of technology capabilities (TC) showed TC2 is 3.6 percent for completely disagree, TC4 is 5.4 percent for disagree, TC3 is 42.9 percent for neutral opinion, TC1 is 0.0 percent for agree and TC4 is 0.0 percent for completely agree.

Table 7: The frequency results of Training quality (TQ)

Training quality (TQ)	TQ1	TQ2	TQ3
	Percent	Percent	Percent
Completely disagree	6.7	7.7	6.2
Disagree	18.5	17.7	19.8
Neutral opinion	33.9	33.9	33.9
Agree	37.5	36.8	36.8
Completely agree	3.3	3.9	3.3
Total	100.0	100.0	100.0

(Source: The researchers' collecting data and SPSS 20.0)

Table 7 showed that the frequency results of training quality (TQ) showed TQ3 is 6.2 percent for completely disagree, TQ2 is 17.7 percent for disagree, TQ3 is 33.9 percent for neutral opinion, TQ2 is 36.8 percent for agree and TQ1 is 3.3 percent for completely agree.

Table 8: The frequency results of Students' satisfaction (SS)

Students' satisfaction (SS)	SS1	SS2	SS3	SS4
	Percent	Percent	Percent	Percent
Completely disagree	3.6	2.8	1.5	5.4
Disagree	13.9	12.6	11.8	16.7
Neutral opinion	30.8	33.2	31.4	30.6
Agree	46.0	44.5	41.9	36.2
Completely agree	5.7	6.9	13.4	11.1
Total	100.0	100.0	100.0	100.0

(Source: The researchers' collecting data and SPSS 20.0)

Table 8 showed that the frequency results of students' satisfaction (SS) showed SS3 is 5.4 percent for completely disagree, SS3 is 11.8 percent for disagree, SS4 is 30.6 percent for neutral opinion, SS4 is 36.2 percent for agree and SS1 is 5.7 percent for completely agree.

The descriptive statistics results of variables. Table 9 showed how a distribution is created, table is ready to learn how to describe one. There are two main things that need to be described about a distribution: its location and its shape. Generally, it is best to give a single measure as the description of the location and a single measure as max, min, mean and std. deviation following:

Table 9: The Descriptive Statistics results

Code	N	Min	Max	Mean	Std. Deviation
HR1	389	1.00	5.00	3.4653	.90926
HR2	389	1.00	5.00	3.5501	.94742
HR3	389	1.00	5.00	3.4473	.95810
HR4	389	1.00	5.00	3.4036	.92172
HR5	389	1.00	5.00	3.3573	.90436
TF1	389	1.00	5.00	3.2802	.93948
TF2	389	1.00	5.00	3.2031	.97515
TF3	389	1.00	5.00	3.1028	1.04028
TF4	389	1.00	5.00	3.1877	.98350
TC1	389	1.00	5.00	2.3959	.58994
TC2	389	1.00	4.00	3.2365	.75341
TC3	389	1.00	5.00	2.4807	.70912
TC4	389	1.00	5.00	3.2159	.82152
TQ1	389	1.00	5.00	3.1234	.97399
TQ2	389	1.00	5.00	3.1131	.99874
TQ3	389	1.00	5.00	3.1131	.96728
SS1	389	1.00	5.00	3.3625	.91648
SS2	389	1.00	5.00	3.4010	.89592
SS3	389	1.00	5.00	3.5373	.92043
SS4	389	1.00	5.00	3.3085	1.04657

(Source: The researchers' collecting data and SPSS 20.0)

Table 9 showed that there are 400 students surveyed by hard copy distributed among 7.000 students of LHU in Dong Nai province but only 389 students processed. Min value is 1.0; Max is 5.0; Mean is around 3.0 and std. deviation is around 1.0.

CONCLUSIONS

The researchers surveyed 400 students (389 processed) studying full time at LHU and answered 20 questions. Data collected from July 2017 to March 2018 at LHU. The students' responses measured through an adapted questionnaire on a 5-point Likert scale (Conventions: 1: Completely disagree, 2: Disagree, 3: Normal; 4: Agree; 5: completely agree). The researchers had the frequency statistics results of students' information and the description of the location and a single measure as max, min, mean and std. deviation. Besides, Min value is

1.0; Max is 5.0; Mean is around 3.0 and std. deviation is around 1.0. This Data is very good for the next steps such as the analysis of the Cronbach's Alpha and the exploratory factor analysis (EFA), which used for Structural Equation Modelling (SEM). The next research is to test SEM and recommendations to renovate and raise the quality of education and training for human resources for the fourth industrial revolution. Besides, LHU should be contributing to enhancing the competitiveness of the quality of education and training in the context of deepening international integration.

REFERENCES

Abdullah, F. (2006). Measuring service quality in higher education: HEdPERF versus SERVPERF. Marketing Intelligence & Planning, 24(1), 31 - 47.

Benešová, A. (2017). Requirements for Education and Qualification of People in Industry. Procedia Manufacturing, 27, pp. 2019 - 2022. Modena, Italy.

Brown, S. (2011). Bringing about positive change in the higher education student experience: A case study. Quality Assurance in Education, 19(3), 195 - 207.

Debnath, R. M. (2012). Improving service quality in technical education: Use of Interpretive Structural Modeling. Quality Assurance in Education, 20(4), 387 - 407.

Douglas, J. D. (2006). Measuring student satisfaction at a UK university. Quality Assurance in Education, 14(3), 251 - 267.

Gallifa, J. &. (2010). Student perceptions of service quality in a multi-campus higher education system in Spain. Quality Assurance in Education, 18(2), 156 - 170.

Hadullo, K. (2017). A model for evaluating e-learning systems quality in higher education in developing countries. International Journal of Education and Development using Information and Communication Technology, 13(2), 185 - 204.

Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). Multivariate Data Analysis with Readings. US: Prentice-Hall: Upper Saddle River, NJ, USA.

Hill, Y. L. (2003). Students' perceptions of quality in higher education. Quality Assurance in Education, 11(1), 15 - 20.

Ibrahim, M. Z. (2014). Determining Factors of Students' Satisfaction with Malaysian Skills Training Institutes. International Education Studies, 7(6), 9 - 24.

Lagrosen, S. S.-H. (2004). Examination of the dimensions of quality in higher education. Quality Assurance in Education, 12(2), 61 - 69.

Li, I. W. (2017). Factors Influencing University Student Satisfaction, Dropout and Academic Performance: An Australian Higher Education Equity Perspective. Australia: The University of Western Australia.

Lien, P. T. (2017). Training Service Quality and its Effects on Student Satisfaction: Case of a Vietnam University. International Journal of Academic Research in Business and Social Sciences , 7(4), 99 - 102.

Masoumi, D. &. (2012). Quality in e-learning: a framework for promoting and assuring quality in virtual institutions. Journal of Computer Assisted Learning, 28(1), 27 - 41.

Mayoka, K. &. (2012). An analysis of eLearning Information System adoption in Ugandan Universities: Case of Makerere University Business School. Information Technology Research Journal,, 2(1), 1 - 7.

Meštrović, D. (2017). Service quality, students' Satisfaction and behavioural intentions in stem and ic higher education institutions. Interdisciplinary Description of Complex Systems , 15(1), 66 - 77.

Mtebe, J. a. (2014). A Model for Assessing Learning Management System, Success in Higher Education in Sub-Saharan Countries. The Electronic Journal of Information Systems in Developing Countries, 61(7), 1 - 17.

Parpala, A. S.-Y. (2011). Students' conceptions of good teaching. Assessment & Evaluation in Higher Education, 36(5), 549 - 563.

Sackey, S. (2016). Industrial engineering curriculum in industry 4.0 in a south african context . South African Journal of Industrial Engineering, 27(4), 101 - 114.

Shah, M. (2012). Ten years of external quality audit in Australia: evaluating its effectiveness and training quality. Assessment and Evaluation in Higher Education, 37(6), 761 - 772.

Truong, H. V. (2016). Service Quality and Students Level of Satisfaction in Private Colleges in Vietnam. International Journal of Financial Research, 7(3), 121 - 128.

Widaryanti. (2016). The Students Satisfaction Oriented: Academic Service Improvement Strategy, Department of Aquatic Resources Management, Bogor Agricultural University, Indonesia . Journal of Education and e-Learning Research , 3(3), 98 - 105.

Yin, H. a. (2015). Assessing and improving the quality of undergraduate teaching in. Assessment and Evaluation in Higher Education, 40(8), 1032 - 1049.

Yin, H. L. (2014). Unmasking the teaching quality of higher education: students' satisfaction. Assessment and Evaluation in Higher Education, 39(8), 949 - 970.