The Impact of Work Ability and Work Attitude on Employers' Satisfaction: A Case Study of Verification for Topping Course

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ABSTRACT: *In recent years, as Topping Course has been widely adopted in Taiwan's university of science and technology, schools have been able to enable students to give full play to their working abilities and work attitude in their internships, with a view to increasing employer satisfaction and enabling students to" graduate and take up employment".*
This study mainly aims to verify the influence of students' working ability and work attitude on employers' satisfaction, to adopt the senior students of a certain university of science and technology in Taiwan as the population, and then to sample the population by means of Purposing Sampling method; to construct the model by using Llinear Structural Equation Modeling (SEM), and to verify whether the model fits to achieve the best matching model.
The results show that a certain science and technology university in Taiwan, of which (1) Working Ability has a positive and significant impact on employers' satisfaction; (2) Work Attitude has a positive and significant influence on employers' satisfaction; and (3) Both Work Ability and Work Attitude have a positive and significant interaction effect on Employers' Satisfaction.
The results of this study can be provided to the relevant sectors of domestic institutions of decision-makers and employers for reference.
KEY WORD*: Work Ability, Work Attitude, Employers' Satisfaction, Topping Course*

I. INTRODUCTION

In recent years, the progress of science and technology and the change of industrial structure have made the talents cultivated by technical and vocational education and the needs of enterprises for which have difference/ gap resulting in the learning outcomes cannot be fully applied or brought into play. How to make students understand the current direction of employment, adapting to the future working environment and work connotation in advance, so that after graduation, the students can smoothly enter social employment. This maybe the reason that the school urgently need to overcome the subject. However, does the student's ability to work and attitude have an impact on the satisfaction of the trainee employers? The mentioned-above is one of the important subjects to worth studying.

Therefore, this study mainly aims to verify the impact of students' working ability and work attitude on employer satisfaction. Taking the senior students of a Taiwan University of Science and Technology as the study population in 2019; sampling the population by means of the method of purposing sampling; using Linear Structural Equation Modeling (SEM) to construct the model, and verifying whether the model reaches the goodness-of-fit.

The main purpose of this study is briefly described as follows: Whether (1) the Work Ability of senior students at a certain science and technology university in Taiwan has a positive and significant impact on Employers' Satisfaction; (2) Work Attitude has a positive and significant effect on Employers' Satisfaction; and (3) Work Ability and Work Attitude have significantly interactive effect on Employers' Satisfaction or not.

II. LITERATURE REVIEW

2.1 Conceptual definition of Work Ability

The conceptual definition of Work Ability in this study is "the basic ability of students to work, including: professional knowledge and skills, communication and expression skills, continuous learning ability, teamwork ability, problem solving ability, innovation and development ability and information technology application ability." The above definition is based on the following literature.

Kanungo & Misra (1992) divided Work Ability into (1) Emotional ability: ability to control emotions and challenge under work pressure; (2) Intelligent ability: work out problem- solving strategies and have good performance; and (3) Mobile-oriented ability: effective execution strategy to achieve the goal.

Li (2001) pointed out that the ability to work is the knowledge, technology, ability, qualities and attitudes that an individual needs to achieve excellent job performance, not only the knowledge, skills and traits that an individual currently has, but also the potential abilities that may develop in the future and the abilities available through learning, covering from explicit movement skills to implicit values, emotions and attitudes.

Rich, Lepine & Crawford (2010) considered work ability to be an employee's behavioral attitude to creating value for the organization and to achieve work goals directly or indirectly.

Huang (2012) pointed out that an individual's ability to work is measured by setting standards and improving his or her ability to work through training and knowledge transfer to predict high-performance output by applying knowledge, skills, attitudes and traits related to job performance in an appropriate environment.

Mei (2018) believed that a person can use the knowledge, values, skills, etc. learned by the individual to successfully perform a specific job function.

2.2 Conceptual definition of Work Attitude

The conceptual definition of Work Attitudes in this research is "the internal and external behaviors that students need to have during internships, including active professionalism, stress resistance and emotional management, job responsibility and discipline, interpersonal interaction, and workplace ethics and moral integrity, coordination and stability, and self-management, etc". The above definition is synthesized with reference to the following documents.

Robbins (2001) pointed out that attitude is the evaluation response to various people, things, and things. The content will vary from person to person, including the evaluation of right and wrong.

Zhuang (2009) found that work attitudes are the perception, feelings or behavioral manifestations of individuals that are affected by environmental culture.

Huang (2015) believed that work attitude is a personal evaluation response to work.

2.3 Conceptual definition of Employers' Satisfaction

The conceptual definition of Employers' Satisfaction in this study is "Satisfaction is a psychological feeling, which is the gap between a prior expectation and actual experience. If the expectation is satisfied, it will produce a feeling of satisfaction for the employers." The above definition is synthesized with reference to the following documents.

Vroom (1964) believed that when an individual gets what he or she needs, he or she will feel satisfied; when the intensity of the needs is high, the more satisfied they are when they are achieved, and the more dissatisfied they are when they cannot be achieved.

Franken & Van (1981) pointed out that satisfaction is a relative index, usually between the gap between expectations and actual conditions. If the expectation is not met, it will produce a feeling of dissatisfaction; if the expectation is met, it will produce a feeling of satisfaction.

Zeithaml, Parasuraman & Berry (1990) stated that satisfaction is a gap between expectations and actual experience.

Cai & Li (2015) pointed out that satisfaction is a kind of psychological feeling, which can be interpreted as satisfying needs or fulfilling expectations. It is an inner psychological level that is gradually formed through the process of learning. Therefore, what cannot be directly observed must be through It can be judged by the expressions of external behavior, words and expressions.

2.4 The relationship between the two main constructs

2.4.1 Work Ability versus Employers' Satisfaction

Regarding the literature on Work ability and satisfaction of this research, the aspect of this research has not been found so far. In order to make the hypothesis of this research more rigorous, a questionnaire survey method is used and the following hypotheses are proposed as follows:

Hypothesis 1 (H$_1$): The Work Ability of senior students from a certain university of science and technology in Taiwan has a positive and significant impact on Employers' Satisfaction.

2.4.2 Work Attitude versus Employers' Satisfaction

Hong (2011) showed that the work attitude and learning satisfaction of students in higher vocational cosmetology department rotating construction and teaching cooperative classes are significantly correlated.

Chen (2014) pointed out that work attitude has a direct and positive influence on the path coefficient of job satisfaction.

Luo (2015) proposed that there is a significant correlation between work attitude and job satisfaction.

Guo (2016) showed that corporate culture, employee empowerment and work attitude have a positive impact on job satisfaction, and work attitude has a significant impact on job satisfaction.

Xie (2017) pointed out that there is a significant correlation between the work attitude and learning satisfaction of students in higher vocational catering and travel rotation construction classes.

Based on the above, this study proposes the following hypothesis as follows:
Hypothesis 2 (H₂): The work attitude of senior students at a certain university of science and technology in Taiwan has a positive and significant impact on employers' satisfaction.

2.4.2 Interactive effect for both Work Ability and Work Attitude on Employers' Satisfaction
Combined with Hypotheses 1& 2, this study extends the following Hypothesis 3 as below.
Hypothesis 3 (H₃): Both Work Ability and Work Attitude have a positive and significant interaction effect on Employers' Satisfaction.

III.   RESEARCH METHOD

Based on the above main research motivation, purposes, literature review and hypotheses, the framework of this research is constructed, as shown in Figure 1.
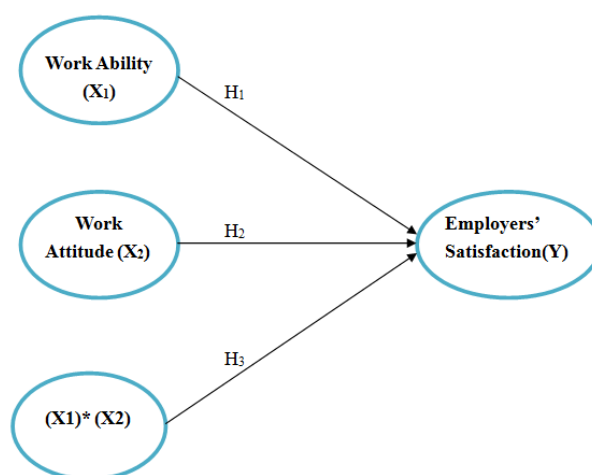

Figure 1 Research Framework

3.1 Sampling method
        In this study, the population was sampled by Purposive Sampling method, and this study was aimed at the population of senior students at a certain science and technology university in Taiwan in 2020. In this study, 30 expert questionnaires were issued as pilot-test for the research population. After corrections were made according to the improvement suggestions put forward by scholars and experts, post-tests were carried out. 400 questionnaires were formally distributed. The valid samples were 291 copies, the effective sample recovery rate was 72.75%.

3.2 Questionnaire design
        The questionnaire of this study is designed according to the main constructs of this study, although the questionnaire is designed according to the "sub-measurement" method, and the questionnaire measures the seven-point scale by Likert Scale, according to the degree of consent and the degree of disagreement to give a score of 7 to 1, 7 points represent extreme consent, 1 point represents extremely disagree. The higher the degree of consent, the higher the score; on the contrary, the lower the score.

3.3 Questionnaire data and measurement system
        To verify the research framework proposed by this study, a Linear Structural Equation Modeling (SEM) is used to validate the study model architecture (Confirmatory Factor Analysis, CFA). In addition to the questionnaire is divided into three potential variables (Latent variables) such as (1) Work Ability; (2) Work Attitude; and (3)employer satisfaction. The questionnaire questions were designed according to the above three potential variables, measured by AMOS software, and the measurement results are shown in Figure 2.

IV.   RESULTS AND ANALYSIS
4.1 Analysis of Linear Structure Equation Modeling
        Confirmatory Factor Analysis (CFA) is an analysis method relative to Exploratory Factor Analysis (EFA). This study is based on the population of senior students from a certain university of science and

technology in Taiwan. Purposive sampling method is adopted, and using the Linear Structure Equation Modeling (SEM) to verify whether the "goodness- of- fit" of the Structural Model and Measurement Model, and the Overall Model of this study are matched or not.

4.2 Analyzing fit of Structure Model
4.2.1 Path analysis results of Structure Model
       After the group model has passed the fitness test, this study uses the estimated values (Estimates) of the parameters between the potential variables, the standard error (SE) and the critical ratio (CR) between the potential variables, as shown in Table 1.

Table 1 Path analysis results of Structural Model

Path coefficient between latent variables			Estimate	S.E.	C.R.	P	Label
Work Ability (X_1)	→	Employers' Satisfaction (Y)	.663	.121	5.479	***	H_1
Work Attitude (X_2)	→	Employers' Satisfaction (Y)	.612	.122	5.016	***	H_2
$X_1 * X_2$	→	Employers' Satisfaction (Y)	.694	.203	3.419	***	H_3

Note: * means P<0.05; ** means P<0.01; *** means P<0.001

4.2.2 Coefficient of Determination
       The degree of interpretation of the "independent variable" of each potential variable to the "dependent variable" of each potential variable is the R square value (Squared Multiple Correlation, SMC). Therefore, the R square value shown in Table 2 indicates that the implicit independent variable has adequate explaining ability on the implicit dependent variable respectively.

Table 2 Path determination coefficient

Coefficients of Determination	R^2
Work Ability (X_1) → Employers' Satisfaction (Y)	.713
Work Attitude (X_2) → Employers' Satisfaction (Y)	.722
$X_1 * X_2 →$ (Y)	.731

4.3 The indices of fit of the Overall Model
       Using the linear structural equation modeling (SEM), as the analysis method of modeling in this study, is to verify the relationship between the unobservable variables in the Structural Model, and whether the Measurement Mode has quantitative Test reliability, and measure the fitting effect of the overall fitness of this study. The indicators to measure the overall fitness of this study are χ2, df, GFI, AGFI, NFI, CFI, RMR, RMSEA, etc., usually χ2/df < 5; 1>GFI>0.9; 1>NFI>0.9; 1>CFI>0.9; RMR<0.05; RMSEA<0.05 (Bagozzi & Yi, 1988) Overall, the appropriateness of the overall model of the group in this study is χ2/df < 5; GFI, AGFI and NFI are all greater than 0.90, while the RMR value is less than 0.05, indicating that the overall goodness-of-fit of the research model is good, as shown in Table 3.

Table 3 Overall model suitability scale

Determination index	χ^2	DF	GFI	NFI	AGFI	CFI	RMR	RMSEA
Fit value	18.361	5	0.901	0.923	0.901	0.932	0.011	0.023

Source: this study & Bagozzi & Yi (1988)

4.4 Standardized results of SEM analysis)
The Overall structure of the Standardized results performed by the computer software is shown in Figure 2.
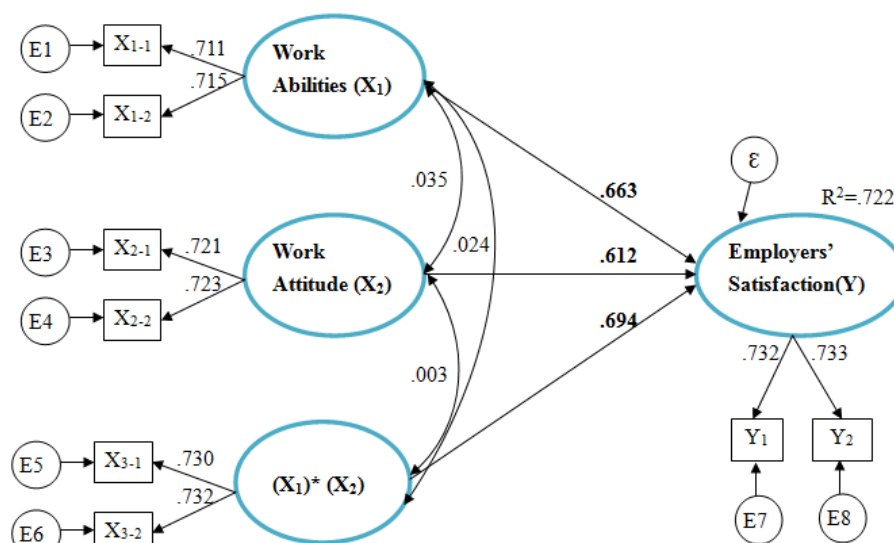
Figure 2 Standardized results of SEM analysis

V.   CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

Through the above results and analysis, the following conclusions can be drawn:

5.1.1 As far as the SEM model verification is concerned, the Linear Structure Equation Modeling (SEM) constructed by this research has a goodness-of-fit with the Measurement Model, Structure Model and the Overall Model of this study, showing that this model fits well (Table 3).

5.1.2 As far as practical verification is concerned: seniors from a certain university of science and technology in Taiwan are the population, we are able to realize the following results.

(1) Work Ability has a positive and significant impact on Employers' Satisfaction;

(2) Work Attitude has a positive and significant impact on employers' Satisfaction;

(3) Both Work Ability and Work Attitude have a positive and significant interaction effect on Employers' Satisfaction.

From the above, it can be seen that both Work Ability and Work Attitude have a positive and significantly interactive effect on Employers' Satisfaction, indicating that students must have good working abilities before internship, including professional knowledge and skills, communication skills, and continuous learning ability, teamwork ability, problem-solving ability, innovation and development ability and information technology application ability, etc., and during the internship, a good working attitude, including proactive professionalism, stress resistance and emotional management, work responsibility and discipline, interpersonal interaction, workplace ethics and ethics, cooperation and stability, and self-management, etc.

5.2 Suggestions

(1) When implementing Topping courses, schools should incorporate the skills required by companies that are representative of a certain industry into the courses. Students who have the abilities of these courses should be given priority to become interns in these companies. These selected interns have the ability to work in the company and can put what they have learned into practice, thereby closing the gap.

(2) Strengthen students' innovative development ability, international perspective and foreign language ability.

(3) Cultivate students' active professionalism, stress resistance and emotional management etc.

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