

## Tracing Study of Students' Certification Competency Exam at Ministry of Communication and Informatics Indonesia

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### Article History

*Received: 16.03.2018*

*Accepted: 30.03.2018*

*Published: 30.04.2018*

### DOI:

10.21276/sjbms.2018.3.4.6



**Abstract:** The purpose of this paper is to conduct tracing study for students of certification competency exam at Ministry of Communication and Informatics Indonesia. The proposal is based on the concept of college and career readiness in Boston which was used to assess the factors of careers after students taking competency exam for framing the tracing study of certification competency exam in Ministry of Communication and Informatics Indonesia. Majority respondents use the certificate to apply for job vacancy. This is good result, means that the objective of Ministry of Communication and Information to facilitate young workers to get job from this competency exam do satisfied the objectives. The factors identified for not applying jobs are: still finishing study, already working, and taking entrepreneurship path. and are still asking support from their parents. Those who are working in banks, schools, government institutions and private companies, others say they are going to try to propose again, and are going to continue their education before attempting to get job again. Interestingly, there are some respondents are willing to take entrepreneurship instead of continuing their effort to get a job. This means that entrepreneurship is attractive for them.

**Keywords:** tracing study, certification competency exam, ministry of communication and informatics.

## INTRODUCTION

Currently the Indonesian Government has ratified Indonesia against global and regional agreements concerning free trade should be immediately followed up by efforts to improve the competitiveness and productivity of human resources of labor. One such effort is certification based on Indonesian National Work Competence Standards (SKKNI). In the communications and informatics sector, the industrial workforce must also immediately improve the skills that until now still have gaps. Data from the World Bank [1] indicates that local skill gaps are derived from a lack of English proficiency (44%), computer skills (36%), critical thinking (33%), work behavior (30%), and basic skills (13%).

According to head of Center for Literacy Development and Human Resources Informatics in Ministry of Communication and Informatics Indonesia (2017) [2], one of the factors of success in winning the competition in the era of free trade, both in ASEAN and global regional level is qualified and competent human resources. Especially when the development of communication and content industry more rapidly and competitively followed by the increasing availability of

competent human resources. Therefore, efforts to prepare a qualified human resources Indonesia can no longer be done with the usual steps, Ministry of Communications and Informatics [2]

The government has prepared a general strategy of employment in facing the MEA. First, improve the quality and competitiveness of Indonesian workers. Secondly, implement the Acceleration of Implementation of National Work Training System (SISLATKERNAS) which integrates the development of competency standards with competency-based training programs and competency certification. Third, develop and implement equality recognition agreement or MRA (Mutual Recognition Agreements) within ASEAN.

Within the framework of Research and Development Agency, Ministry of Communications and Informatics Indonesia, through the Center for Literacy Development and Human Resources Informatics facilitation training and certification of the young workforce in the field of Informatics. Proof of competence of human resources in the field of Informatics in accordance with Indonesian National

Work Competence Standard (SKKNI) is done with certification exam held by Profession Certification Institution (LSP) of Informatics field at Competency Test Site (TUK) which become partner. SKKNI competency certificates are issued by the National Agency for Certification of Professions Authority (BNSP).

The difference of competence certificate with ordinary certificate to competency test students the young ICT workforce. Certificates can be obtained from everywhere and vary. Can be from training, seminars, activities, from school, university, or can make your own. It's easy for someone to make a certificate.

Regarding employment, certificates that are acceptable in industries other than formal certificates of competence certificates. Therefore the certificate of competence must be different from other certificates circulating in the community. Edwin explains the difference between competence certificates and other certificates.

The purpose of the implementation of training and certification standards-based Indonesian National Work Competence informatics field to improve the competence of human resources in the field of informatics in the world of national informatics industry in particular, and to compete in the international world in general.

Benefits for students to their expertise. Facilitation activities of national certification materialized in the form of introductory material as a refresher material to the topic to be tested, and then continued with the certification exam.

Young workforce of informatics field that will participate in training and certification nationwide as many as 4000 people with minimum quality of high school graduates who are currently not working and are looking for jobs.

However, Reaerach and Development Agency Ministry of Communications and Informatics needs to get the optimum outcome from the certification competency exam. Students who have passed the exam should be able to get jobs using their certificate of competency.

Therefore research question addressed in this paper is: How do tracing study of certification competency exam students of ministry of communication and informatics indonesia?

The outline of this paper is as follows. After developing the theoretical framework, it is applied to the case of tracing study of certification competency

exam in Ministry of Communication and Informatics Indonesia focus on:

- A description and identification of careers after taking the certification competency exam.
- The factors identified to the characteristics of the tracing study of certification competency exam participats.
- The preconditions for career development, have been defined such as career decisions. This is followed by discussion.

### **THEORITICAL FRAMEWORK**

Previous studies of career tracking have been developed by Marshall *et al.*, [3]. The study set out to develop a survey tool to gather information on both program evaluation and subsequent employment experiences and a model of delivery that could potentially be used by all library and information science (LIS) programs. The resulting model includes a shared survey, shared yet customizable methodology, a Web-based data collection tool, program-specific data products, and shared data products.

Another study by Jeffreys [4] In the escalating nursing shortage, nursing student retention and success (graduation and licensure) is a priority. The entry, progression, graduation, and licensure characteristics of culturally diverse associate degree nursing students (n = 112) were assessed to gain insight into nursing student progress and success. In this retrospective study, data collection included student profile characteristics, academic outcomes, type of retention or attrition, program completion length, and licensure.

Welch *et al.*, [5] conducted research by searching online databases for evidence of indicators that predict college and career readiness. The databases were searched for peer-reviewed articles: Academic Search Premier, ERIC, JSTOR, PsycINFO, and SAGE Journals, along with the collection of AIR's own published information.

The search terms were chosen by identifying key skills from different frameworks that were developed with the input of employers, educators, and researchers, such as the Employability Skills Portfolio, Stemmer [6]. The inclusion of studies in their review focused on work published in the last 15 years, though a small number of foundational studies in each area were cited as well.

### **RESEARCH METHODS**

Methodology of this paper was based on the concept of college and career readiness in Boston, Welch *et al.*, [5] which was used to assess the factors of careers after students taking competency exam for framing the tracing study of certification competency exam in Ministry of Communication and Informatics Indonesia.

From 4000 students nation-wide, reserched spread questionnaire to 500 respondents who took exam held by Computer Profession Certification Institution (LSP Komputer). The results of submitted questionnaire were 264 respondents. Descriptive analytics and Chi Square test were conducted to obtain significant difference among respondents' charecteristics.

The questionnare was developed using Google Form to 500 respondents during periode of research December 2017 – January 2018. Only 264 respondents did submit or returned the questionnaires which consist of simple questions as follow:

First question was to identify career path wheter they apply for job or not.

- Is the Competence Certificate used to apply for a job?
  - a. Yes
  - b. No
- If you answered No, state the reason:
  - a. entrepreneurship
  - b. follow the parents
  - c. housewife
  - d. others, mention .....

Second question identified to the characteristics of the tracing study of certification competency exam participats.

- Is it because Certificate of Competence, you have been accepted a job?
  - a. Yes
  - b. No
- If you answered Yes, please fill in your receiving institution .(mention name .....

- If you answered No, what's your next move?
  - a. trying to apply again
  - b. entrepreneurship
  - c. continue education
  - d. stop trying

The results of questionnaire gathered from Google Form then analyzed to get descriptive analysis and non-parametric analysis using Chi Square

**RESULTS AND DISCUSSION**

**RESULT**

The indicators of certification competency exam were tested in three categories:

- KNOWLEDGE - Academic indicators
- SKILL - Soft skills, or employability skills
- ATTITUDE - Social and life experience indicators

Collectively, these indicators show a wide variety of ways that high schools, school districts, and community agencies might consider monitoring—and ultimately supporting their students for greater likelihood of success after high school. These various indicators describe a set of cognitive abilities, noncognitive skills, experiences, and dispositions that might predict students’ ability to thrive in a number of different circumstances in postsecondary life, though research literature generally focuses on these indicators being predictive of success in two realms: college readiness and career readiness, Conley [7].

Table-1 to 5 show the result from the answers of 264 respondents after passing certification competency exam.

**Table-1: Is the Competence Certificate used to apply for a job?**

Statement	Frequency	Percent	Valid Percent
Yes	202	76.5	77.1
No	60	22.7	22.9
Sum	262	99.2	100.0
Missing system	2	.8	
Total	264	100.0	

The result from 264 respondents 77.1% use the certificate to propose for job vacancy. Oly 22.9% respondents do not use the certificate to propose job vacancy. This is good result, means that the objective of

Ministry of Communication and Information to facilitate young workers to get job from this competency exam do satisfied the objectives.

**Table-2: If you answer No, state the reason:**

Statement	Frequency	Percent	Valid Percent
Entrepreneurship	8	3.0	13.3
Follow the parents	2	.8	3.3
Others, specify	5	1.9	8.3
Still finishing study	28	10.6	46.7
Already working	15	5.7	25.0
Not necessary	2	.8	3.3
Sum	60	22.7	100.0
Missing system	204	77.3	
Total	264	100.0	

From previous Table-1, from 22.9% respondents answer why they do not take job vacancy. Most of respondents 46.7% are still finishing high school or bachelor degree. While 25.0% they are already working and the certificates are used to get reference for higher position,

There are small number of 8 respondents or 13.3% will take entrepreneurship path rather than getting job. The remaining 2 respondents are still asking support from their parents, and 2 other respondents say that certificates are not yet necessary. There are 204 07 77.3% missing system means that they have answered "Yes".

**Table-3: Is it because Certificate of Competence, you have been accepted a job?**

Statement	Frequency	Percent	Valid Percent
Not to apply for a job	60	22.7	22.7
Yes	71	26.9	26.9
No	133	50.4	50.4
Total	264	100.0	100.0

Table-3 indicates that there are still more than half of respondents 50.4% not yet accepted for a job, while 26.9% they are already accepted a job from various institutions. Respondents who were accepted mention that they are now working in banks, schools,

government institutions and private companies. This is not bad result, since the certification exams were conducted in 2017 and respondents have not tried more efforts to get job. Therefore researcher asked another question shown in Table-4.

**Table-4: If you answered No, what's your next move?**

Statement	Frequency	Percent	Valid Percent
Trying to apply again	82	31.1	61.7
Entrepreneurship	12	4.5	9.0
Continue education	38	14.4	28.6
Stop trying	1	.4	.8
Sum	133	50.4	100.0
Missing system	131	49.6	
Total	264	100.0	

The result from the questionnaire also show the consequences after not successfully get job, most of respondents 61.7% say that they are going to try to propose again. And 28.6% are going to continue their education before attempting to get job again.

continuing their effort to get a job. This means that entrepreneurship is attractive for them. Only one respondent or less than 1% will stop trying to apply for a job.

Interestingly, there are some respondents 9% are willing to take entrepreneurship instead of

Furthermore, researcher summarize the above four tables using Chi Square to check the significance of the result, shown in Table 5 below.

**Table-5: Chi Square Result**

	Table 1	Table 2	Table 3	Table 4
Chi-Square	76.962 <sup>a</sup>	50.600 <sup>b</sup>	35.205 <sup>c</sup>	117.015 <sup>d</sup>
Df	1	5	2	3
Asymp. Sig.	.000	.000	.000	.000

- a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 131.0. Chi-Square test indicates that the result shows significant different between respondents who wish to take job vacancy are more than not taking job vacancy.
- b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0. Chi-Square test indicates that the result shows significant different between respondents who are still finishing study are more than other reasons.
- c. 0 cells (0.0%) have expected frequencies less than

- 5. The minimum expected cell frequency is 88.0. Chi-Square test indicates that the result show significant different between respondents are not because Certificate of Competence have been accepted a job more than getting job vacancy.
- d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3. Chi-Square test indicates that the result shows significant different between respondents who wish to continue education are more than other reasons.

## DISCUSSION

We can not deny that the quality of our workers is low enough that our workforce is still less competitive with workers from Malaysia, Singapore and Thailand. This is further exacerbated by the existence of MEA (ASEAN Economic Community) where our workers have to compete with workers from ASEAN countries.

MEA itself is a free trade system between ASEAN countries where the MEA region requires to free the flow of skilled labor. Therefore, now many people are competing to get a higher academic degree. But is it correct? The way is actually quite true if for the academic environment. But for the work environment is certainly not true. So what's needed in a work environment? The answer is professional certification of competency.

Advantages of professional certification:

- Gain recognition of competence nationally and internationally.
- Increase professional career opportunities and improve the credibility of the person
- Adding new insights that are not obtainable during formal education.
- Can improve the position and also the professional's reputation when working in a company.

Disadvantages of professional certification:

- Difficult to get (although it has been a test but the level of graduation is still small)
- The cost is quite expensive
- The cost is quite expensive
- The certification shall be renewed periodically or in effect within a certain period of time
- The certification organizers are mostly in Jakarta and Java

Therefore Research and Development Agency, Ministry of Communications and Informatics Indonesia, through the Center for Literacy Development and Human Resources Informatics facilitation training and certification of the young workforce in the field of Informatics is very much appreciated and should be continued for next fiscal year ahead with higher budget value.

## CONCLUSION

To summarize, This paper has answered the research questions of how do tracing study of certification competency exam students of ministry of communication and informatics indonesia.

- A description and identification of careers after taking the certification competency exam. Majority respondents use the certificate to propose for job vacancy. This is good result, means that the objective of Ministry of Communication and Information to

facilitate young workers to get job from this competency exam do satisfied the objectives.

- The factors identified to the characteristics of the tracing study of certification competency exam participats. Such factors are: still finishing high school or bachelor degree, they are already working and the certificates are used to get reference for higher position, will take entrepreneurship path rather than getting job, and are still asking support from their parents.
- The preconditions for career development, have been defined such as career decisions are: that they are now working in banks, schools, government institutions and private companies, others say they are going to try to propose again, and are going to continue their education before attempting to get job again. Interestingly, there are some respondents are willing to take entrepreneurship instead of continuing their effort to get a job. This means that entrepreneurship is attractive for them.

Finally, researcher recommend to be successful in tracing study, it is important to have a more intensive interview students stressed that just as important as the need to measure students' soft skills, academic readiness, and contextual indicators is the need to establish systems to track students' progress over time as well as any interventions put in place to support those students and any progress they might make over time. Although interview students stressed that college and career readiness indicators should be considered as important milestones for all students, the ability to acquire certain skills and characteristics will differ by familial, social, environmental, peer, community, and economic influences, Phillips, Brooks-Gunn, Duncan, Kelbanov, & Crane [8]. Students may need additional or varying levels of support in reaching various milestones based on personal circumstances, and tracking mechanisms and systems of intervention—are important tools to support the preparation of all students to pursue their own postsecondary paths.

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