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Competency Test Scheme Development to Meet Competency Achievements of Graduates In Industry

Abstract: A competency test scheme at LSP PIP Semarang needs to be developed to increase the competitiveness of graduates and job opportunities. This study aims to formulate a competency test scheme that has the potential to be developed at LSP PIP Semarang in accordance with the needs of industry, the business world, and the world of work (IDUKA) and to determine the impact of competency certificate ownership on labor absorption. Data analysis was carried out descriptively using satisfaction index, GPA, and potential competency schemes to be developed at LSP PIP Semarang. The research was conducted through an online survey involving cadets and graduated users as respondents. The results showed that LSP PIP Semarang had a good competency test service performance. It can be seen from the high achievement of satisfaction index, which is 3.74 - 3.84. Moreover, the GPA also shows the trust level of cadets in the management of competency test services, as indicated by the achievement of an index of 5.57 - 5.68. The investigation results demonstrate that the absorption rate of the PIP Semarang graduates with competency certificates is very high, ranging from 95 - 100%. Several types of competencies are of interest to cadets, which are needed in the job market but are not yet available at LSP PIP Semarang, so they have the potential to be developed, such as K3, PPJK, and logistics. This refers to cadets' interests and the job market's current needs.

Keywords: satisfaction index, performance, HSE, graduated users, scheme template.

INTRODUCTION

Vocational education is a level of school to higher education, including Diploma education programs that support the mastery of applied skills and focus on specific fields to compete in the world of work. The Diploma 4 education program is equal to a bachelor's degree program where vocational education graduates will get a vocational degree. Following government regulations, Vocational Schools must have a Professional Certification Body (Lembaga Sertifikasi Profesi / LSP) in the implementation of their education.

The Professional Certification Body (LSP) is an institution for work competency activities that obtains a license from the National Professional Certification Agency (Badan Nasional Sertifikasi Profesi / BNSP), and BNSP can provide licenses to certification bodies that meet the requirements to be able to carry out their duties. Professional certification is an essential component in the world of work, where it is needed to ensure a person's skills gained during various learning, training, and work experience at the training place (Abazi and Hajrizi, 2018). Certification also guarantees that a cadet has obtained a certain standard of competence. Professional certification

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Arya Widiatmaja Politeknik Ilmu Pelayaran Semarang, Indonesia Email: arya.pip.smg@gmail.com Muhammad Rizky Aditya Nugraha Politeknik Transportasi Sungai, Danau dan Penyeberangan Palembang Email: 47mrizky@gmail.com can increase professional career opportunities and the person's credibility (Çabuk, Erdo**ğ**an, and Cabuk, 2016).

Development of work competencies is needed to answer market needs (Osmani *et al.*, 2019). Related to developing this professional competence, the first-level Professional Certification Body (LSP) (P1) has an essential role as a certification body under an educational institution. The involvement of various stakeholders is needed to adopt work competencies that are following market demand (Drange, Bernstrøm, and Mamelund, 2018). Without conformity with market needs, competency development has the potential to be ineffective in increasing the competitiveness of graduates. Different types of competencies can be encountered in the field that different institutions may issue. In Indonesia itself, there are three recognized competency sources, including SKKI (International Work Competency Standards) issued by multinational organizations and used internationally, SKKNI (Indonesian National Work Competency Standards) issued by the Ministry of Manpower of the Republic of Indonesia, and SKKK (Special Work Competency Standards) issued by organizations for internal purposes (Yudistira, 2022).

The workforce Professionalism requires an agreed standard called a competency standard, which aims to facilitate the suitability of labor skills with the needs of the job owner or company. SKKNI is a working competency formulated as a standard in Indonesia as a reference for testing the skills of prospective workers (Yuniarti, Pramono, and Anggraenni, 2018). Therefore, SKKNI is the primary reference for the development of competency test schemes. The competency recognition (certification) process can be carried out smoothly; an authorized institution is needed in the implementation of competency testing. The institution is a Professional Certification Body or LSP. There are three levels of LSP in Indonesia, namely P1, P2, and P3 (Kraugusteliana and Muliawati, 2021). The three LSP tiers generally have the same function with different scales. LSP P1 serves to provide competency testing services in the internal scope of educational institutions, LSP P2 serves to provide competency testing services in the internal scope of companies or agencies, while LSP P3 serves to provide competency testing services to the general public, both students and workers (Purwadi *et al.*, 2019).

LSP P1 is provided to prepare prospective graduates with working competencies to find a job more manageable and is generally formed by vocational education institutions. Thus, students/cadets/students find it easier to take the test to get a competency certificate (Safitri, 2018). The development of competency test schemes should refer to recognized schemes listed in SKKNI, SKKI, or SKKK. Stakeholder involvement is one of the crucial parts of the development of competency test schemes in LSP (Lim *et al.*, 2016), specifically LSP P1. The main stakeholders related to work competencies are graduate users and students/cadets. Each stakeholder can have a different perspective on the level of importance of the type of competence (Lim *et al.*, 2016). Students' perspectives tend to specialize in nature, where they will choose the competencies they need to get a position in a particular field of work. On the other hand, graduate users tend to adjust to factual needs and actual conditions in the company (Carnevale and Smith, 2013). Graduate users are the ones who hold the most relevant information about competency needs in the job market, so their role is indispensable in the development of competency test schemes (Wowczko, 2015; Qomariyah *et al.*, 2016). Thus, the adopted competency test scheme is relatively more acceptable in the job market, making graduates more accessible to enter the workforce.

A competency certificate is a form of recognition from the assessor of the skills or work competencies tested. Judging from other perspectives, the competency certificate proves that a person has mastered the competence. This is because a testing process is needed to prove that the person in charge has fully understood and/or practiced the competency to obtain a competency certificate. An essential degree of competence is required in a particular field of work (Sharma and Kim, 2022). From the point of view of the certificate owner, he will have a higher bargaining position than the one who does not have one. At the same time, from the company's perspective, it will be easier to choose prospective workers based on predetermined qualifications.

METHOD

The research was conducted to develop a competency test scheme at LSP PIP Semarang involving graduate users and PIP Semarang cadets. This research is a type of exploratory descriptive research. To collect data, this research used a survey that was conducted through a questionnaire of cadets and graduate users. Questionnaire materials for cadets include service performance,

perceptions of corruption, and the need for competency test schemes based on cadets' interests and/or needs. Questionnaire materials for graduate users include identifying and evaluating work competencies following market needs.

Data collection is carried out through online surveys through Google Forms. Researchers compile survey instruments electronically to be disseminated to predetermined respondents. Thus, respondents can respond quickly and flexibly. On the other hand, using online survey instruments facilitates the data tabulation process. The descriptive data analysis method uses the Public Satisfaction Index and the Corruption Perception Index (GPA) as data analysis instruments. The development formulation of the competency test scheme is carried out descriptively by considering several aspects, namely: work competencies needed by the market, work competencies needed by the market but the level of certificate ownership is low, and work competencies that are not/less needed by the market but high certificate ownership. Recommendations for developing new competency test schemes are decided after checking between potential and existing competency schemes.

RESULTS AND DISCUSSION

Based on the survey results, the level of public satisfaction with implementing the competency test at LSP PIP Semarang is in the very good category. The assessment of the nine components of the Satisfaction Index showed a high value, which ranged from 3.74 – 3.84 (scale 4). Based on the analysis results, the behavioral aspect of the implementer obtained the highest satisfaction index, while the cost aspect obtained the lowest index. The analysis results of the Public Satisfaction Index from each aspect of the competency test are shown in Table 1.

Table 1. Satisfaction Index Assessment Components

No	Satisfaction Index Component	Score	Rank
1	Requirement	3,84	2
2	Procedure	3,79	7
3	Time	3,78	8
4	Cost	3,74	9
5	Product Specifications	3,80	6
6	Competence of Implementers	3,83	3
7	Implementer Behavior	3,84	1
8	Infrastructure	3,82	4
9	Complaint Handling	3,81	5

Referring to the analysis results above, all components of satisfaction index to the competency test services provided by LSP PIP Semarang are in a good category. This indicates that respondents are generally satisfied with the services provided by LSP PIP Semarang. Thus, it can be concluded that LSP PIP Semarang has good service performance in implementing competency tests. Furthermore, The Corruption Perceptions Index (GPA) is an essential indicator for an institution, especially state institutions, since it is an indicator of the public trust level in the management staff practices of an institution. The results of the GPA analysis show that LSP PIP Semarang is believed to be very clean from corruption. The analysis results showed an index range between 5.57-5.68 (scale 6) from the seven indicators with an index average of 5.62. The results of the GPA analysis in detail are shown in Table 2.

Table 2. Corruption Perception Index Analysis on Competency Test

No	Satisfaction Index Component	Score	Rank
1	The service procedures are adequate and do not cause corruption,	5,57	7
	collusion, and nepotism (KKN).		
2	Officers/Educators/Service employees do not provide services	5,58	5
	outside the procedures in exchange for money/goods		
3	No unauthorized brokering practices.	5,58	5
4	Non-discriminatory service officers/ educators/ employees	5,62	4
5	No illegal levies.	5,68	1
6	Service officers/educators/employees do not ask for monetary	5,62	3
	/goods related to the services provided.		

No	Satisfaction Index Component	Score	Rank
7	Officers / Educators / Service employees refuse to provide	5,68	1
	money/goods related to the services provided.		
·	Average 5,62		

The results of the GPA analysis, as presented in Table 2 show that the implementation of the competency test at LSP PIP Semarang does not indicate unprofessional actions or corrupt practices. Respondents judged that LSP staff acted professionally and objectively in their duties and functions. Based on the results of the data analysis, respondents are generally satisfied with the competency test services carried out by LSP PIP Semarang. However, there are some inputs to improve the service. Some were related to the performance and procedures of the services provided. Referring to the results of the satisfaction index analysis as presented in Table 1, performance problems and service procedures are related to costs, time, implementation procedures, and product specifications in the form of competency test schemes.

LSP PIP Semarang strives to answer these challenges by innovating to present competency schemes that are in accordance with the job market's needs. Currently, there are six competency test schemes available at LSP PIP Semarang: Managerial Marketers, HR Management Managers, Freight Forwarding, Administrators, Consolidators, and Export Imports. In 2021, two new competency schemes were provided: Loading and Unloading Manpower and Pipe Welders. In 2022, one more competency scheme has been proposed, namely Mooring-Unmooring. The results of the survey of cadets' interests show that there are several types of competencies of interest to cadets, but no testing scheme is available at LSP PIP Semarang. The development of competency test schemes should involve graduate users. The data collection related to graduate competencies based on the perspective of graduate users in this study includes several aspects, namely the competencies needed by the job market, the types of competencies needed but rarely owned by graduates, and the types of competencies that are not needed but are often encountered by graduates. The results of such data collection are presented in Table 3.

Based on the analysis of the interests and needs of competencies obtained from cadets and graduate users, the development of potential competency test schemes includes K3, PPJK, and logistics. In addition, the development of cadets' skills in computer operations, especially the use of Excel software. Respondents' participation in competency tests is expected to increase their acceptance in the job market. A graduate is expected to have skills recognized with the ownership of a certificate of competence. This must be proven empirically by evaluating certificate ownership and its absorption rate in the job market. Based on the results of the graduates distribution in 2019 – 2021, it is known that the absorption rate of TALK PIP Semarang graduates ranges from 95-100%. This indicates that the possession of a competency certificate can increase labor absorption.

Table 3. Work competencies by graduate user

No	Competency Categories	Types of Competency
Α.	Competencies required in the	1. K3
	job market	2. Import Export
		3. Logistics
		4. Computer Expertise and Technology
		5. Consolidation Expert
		6. IMBS Code
		7. IMDG Code
		8. HSE
		9. PPJK
		10. BST
B.	Competencies required but	1. K 3
	rarely encountered	2. Consolidation Expert
		3. Taxation / PPJK

No	Competency Categories	Types of Competency
		4. Loading Master
		5. Excel Expert
		6. Reporting Analyst
		7. Logistics
		8. Freight Forwarding

CONCLUSION

The development of competency test schemes is needed to answer the job market's needs and increase job opportunities for PIP Semarang graduates; the recommended schemes are K3, PPJK, and logistics, as well as improving the skills of cadets in computer operations. Certification has a role in supporting labor absorption, so it needs to be improved to increase job opportunities for PIP Semarang graduates further.

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