Dominant factors from the positive impact of competency certificate ownership

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Abstract. This study aims to determine the perception of skilled construction workers in the craftsman field regarding the positive impact felt after having a work competency certificate. Based on data, there are a number of skilled construction workers in the craftsman who have a work competency certificate which is still very minimal. Even though work competency certificates can have a positive impact on construction workers who have them. In this study carried out with quantitative methods by analyzing the results of perceptions of respondents. This study was conducted at a highrise building project in the city of South Jakarta, namely the Cithaland Tower project, Alamanda Tower, Dharmawangsa Office Tower. The total number of respondents from the 3 projects to be studied is 44 people. The results of this study indicate that respondents feel that the ownership of a work competency certificate has several positive impacts in working in the construction services sector. In this study respondents' perceptions were measured through four indicators, namely work motivation, work productivity, work ability and competitiveness. Of the four indicators there is one of the most dominant indicators according to respondents, namely the indicator of Work Motivation with a percentage of 26.44%.

1. Introduction

Infrastructure development in Indonesia continues to experience very rapid development. This development has an effect on the increasing need for elements associated with infrastructure development, one of which is a competent workforce [1]. A competent workforce is characterized by the ability to knowledge according to their work, skills or expertise gained from their experience so far, and has a good work attitude or behavior in accordance with Work Competency Standards. In the Law of the Republic of Indonesia Number 2 of 2017 concerning Construction Services, Article 70 Paragraph 1 explains that every construction worker who works in construction services must have a work competency certificate, but the reality on the ground has not been fully implemented. Based on data on the number of construction workers in 2018 there were more than 8.3 million people (Central Statistics
The rapid development of infrastructure has also occurred in DKI Jakarta, one of which is the city of South Jakarta. At this time in the city of South Jakarta has done a lot of infrastructure development, especially high-rise building or high-rise buildings. Based on data taken from The Skyscraper Center in 2009 until 2019 in DKI Jakarta Province there were 479 units of high-rise building, namely for East Jakarta as many as 48 units, North Jakarta as many as 49 units, West Jakarta as many as 62 units, Central Jakarta as many as 123 units and for the city of South Jakarta as many as 197 units. With the development of infrastructure which is increasingly rapid will certainly make employment, especially in the field of construction services to increase, especially at the level of workers [2]. However, the number of craftsmen working in the city of South Jakarta is not accompanied by the number of certified craftsmen.

Based on the results of a survey conducted by interviewing the field supervisor at the high-rise building project that is taking place in the city of South Jakarta, it is found that there are only 20 certified work competency workers from a total of 80 to 100 people. Based on this information, the reason for the study was conducted in the city of South Jakarta. There are several constraints that result in the lack of certified construction workers such as the lack of free time to carry out certification activities due to the high working hours and high work demands and the cost of making certificates which are still considered quite expensive [3]. But behind these constraints, there are benefits for construction workers who have work competency certificates that can improve the quality and quality of one's work [4]. Based on the information above, it can be seen that there is a perception that illustrates that work competency certificates have a positive impact on construction workers who have them but are not widely known, especially to builders [5]. To find this out, we need the perspective or perception of a certified work competent as the object of the certification activity [6]. This perception or viewpoint is expected to be able to encourage more construction workers, especially at the craftsman level, to take part in work competency certification activities organized by the government [7].

2. Methods
This study conducted by quantitative methods by analyzing the percentage of respondents' perceptions. This study was conducted at a high-rise building project in the city of South Jakarta, namely the Cithaland Tower project, Alamanda Tower, Dharmawangsa Office Tower. The total number of respondents from the 3 projects to be studied amounted to 44 people. The sampling technique that will be used is purposive sample.

3. Results and discussion
Based on the results of data collection, there are 4 factors that affect competency certificate ownership, namely:

- Work motivation
- Work productivity
- Work ability
- Competitiveness

In assessing respondents' perceptions of the importance of having work competency certificates for construction construction workers, the importance index is calculated for each category by referring to the Likert scale where scale 4 shows respondents who answered "very important" (4), "important" (3), "not important" (2), so that respondents who answered "very unimportant" (1). This index helps in ranking categories according to their importance.

3.1. Work motivation
Table 1 shows the importance indexes of five main categories of work motivation. From the table, it can be seen that the highest position is the amount of wages and certificate ownership. That is, respondents believe, the amount of wages can be determined from work experience and ownership of work
competency certificates [8]. In addition, respondents believe, his work skills will only be recognized if he already has a certificate of work competency [9]. Thus the certificate of work competency is considered one of the most valuable factors in work motivation [9,10].

Table 1. Work motivation.

| Work motivation                                      | Importance index | Ranking |
|-----------------------------------------------------|------------------|---------|
| The amount of wages by having a certificate of work competency | 3.16             | 1       |
| Work experience without having work competency certificate | 2.04             | 4       |
| Work experience by having work competency certificates | 3.07             | 3       |
| Work skills by having a work competency certificate | 3.11             | 2       |

3.2. Work productivity
In table 2 it can also be seen, respondents place the greatest emphasis on three aspects aimed at increasing work productivity, namely, ownership of work competency certificates and work discipline, with important index = 3.04. This means that the respondent considers, by having a work competency certificate, work discipline will also increase [11–13]. In addition to increasing work discipline, respondents also considered that ownership of work competency certificates could increase cooperation (important index = 2.95) [14]; and passion for work (important index = 2.89) [3,15].

Table 2. Work productivity.

| Work productivity                                           | Importance index | Ranking |
|-------------------------------------------------------------|------------------|---------|
| Ownership of certificates of work competency and passion for work | 2.89             | 3       |
| Passion to work without having a work competency certificate | 2.25             | 4       |
| Ownership of work competency certificates and work discipline | 3.04             | 1       |
| Ownership of work competency certificates and group collaboration | 2.95             | 2       |

3.3. Work ability
Table 3 shows important indexes of five categories of work ability. It can be seen that the top three skill categories, namely ownership of work competency certificates and speed of receiving instructions (importance index = 3.02). Respondents believe that if they already have a work competency certificate, they will more quickly receive instructions given by the foreman or supervisor [16]. In addition, the respondent considers, by having a certificate of work competence can increase responsibility for their work (importance index = 2.93) [17]. Likewise, respondents consider the operation of work equipment can increase if they already have a work competency certificate (importance index = 2.86) [18]. However, ownership of work competency certificates and speed of receiving instructions are considered the most valuable in the work and are considered as important work abilities [11,19].
### Table 3. Work ability.

| Work ability                                                                 | Importance index | Ranking |
|------------------------------------------------------------------------------|------------------|---------|
| Work certificate ownership and work instruction receipt                       | 3.02             | 1       |
| Work certificate ownership and work equipment ownership                       | 2.86             | 3       |
| Work competency certificates do not guarantee work quality                    | 2.25             | 5       |
| Ownership of work competency certificates and work responsibilities           | 2.93             | 2       |
| Ownership of work competency certificates and work problem solving           | 2.84             | 4       |

3.4. Competitiveness

When asked to rate competitiveness, respondents stress the ownership of work competency certificates and the ease of getting a job in the top position with importance index = 3.00 [20,21]. In this case, the respondent believes that if he already has a work competency certificate, he will be more likely to get a job. In addition, the respondent believes, if he already has a work competency certificate, the client's trust will increase (importance index = 2.91) [3,22].

### Table 4. Competitiveness.

| Competitiveness                                                                 | Importance index | Ranking |
|--------------------------------------------------------------------------------|------------------|---------|
| Ownership of work competency certificates and client trust                     | 2.91             | 2       |
| Ownership of work competency certificates and career paths                     | 2.79             | 3       |
| Experience is more important than work competency certificates                 | 2.16             | 5       |
| Ownership of work competency certificates and ease of getting a job            | 3.00             | 1       |
| Ownership of work competency certificates and project handling                 | 2.77             | 4       |

3.5. Comparative analysis of the four factors

In a comparative analysis of four factors, this study will take the average of each factor with the appropriate module then to see factors that are relatively more interesting. This study will also discuss each factor.

In Diagram 1 we can see the factor "work motivation" containing 4 modules, "work productivity" containing 4 modules, "work ability" with 5 modules, and "competitiveness" containing 5 modules. The average score for work motivation is 2.908 which is a high enough score and which shows an important factor for respondents to do with ownership of work competency certificates.

If we compare the average score of work motivation factors with work ability and work productivity, the average score of work ability and work productivity is lower than work motivation. The average score of work productivity is 2.782 and work ability is 2.780. This score also shows that respondents rated ownership of work competency certificates as the most interesting factor influencing respondents' work motivation.

The competitiveness factor has an average score of 2.726. Although it has the lowest score of all factors, the competitiveness factor is still a positive score and shows that ownership of a work competency certificate can affect competitiveness in work productivity.
4. Conclusion

Overall, the survey findings show that respondents agreed on the importance of having work competency certificates to improve work motivation, work productivity, work ability and work competitiveness. Nevertheless, of these four factors, work motivation is considered the most dominant factor in relation to ownership of work competency certificates.

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