The influence of Government’s role and workforce’s competence towards the construction workforce performance in Central Sulawesi

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Abstract. The performance of construction workforce should be enhanced, as it is a form of success of Central Sulawesi government in optimizing its management of construction workforces. The quality of construction workforces is when the proliferation of competence meets the standard. This research aims to identify the relationship between the role of the government and workforce competence in the advancement of construction workforce performance. This research used the quantitative method with the descriptive-correlation approach. The population in this research includes contractors, field observers, and project owner that conduct construction works in Central Sulawesi. The data collection in this research is conducted by distributing questionnaires directly to 42 respondents. The data analysis is done with statistics with the support of SPSS software. The result of the study shows that the role factor of the government has a powerful effect of 0.401 on the performance of local workforce, while the competence of the construction workforce is 0.264 to the labor performance. Based on the research result, it is suggested that the policymakers, particularly in Central Sulawesi, take advantage of the research result as a reference in supervising and enhancing the performance of construction workforce in Central Sulawesi.

1. Introduction
The construction workforce’s performance is one of the processes of working to achieve results. As stated by Armstrong et al. [1] on the definition of performance as work result or achievement. Work performance also has multiple meanings as not only the result of work but also the work process. When the performance of construction workforce increases, it will have a positive impact on the infrastructure construction which nowadays is developing rapidly especially in Central Sulawesi. Infrastructure construction will run smoothly and will not experience failure only when there is effective and efficient management in which one of it is to manage the construction workforce. The current construction workforce’s competence is regulated by the latest construction service regulations where it is expected for the workforce to have competence in the field.

Based on the early study conducted by researchers on construction workforce in Central Sulawesi, it showed that all the construction workforce has good performance. However, most of the construction results are not as expected, experience failures, experience delays and other issues that resulted in poor construction results in Central Sulawesi.

The performance of construction workforce is a process, and the involvement of government is imperative. The role of government is critically important in increasing the performance of the
construction workforce. Under the law no. 2, the year 2017 on Construction Service, it is said that the role of regional government is to be enhanced in which the regional government should form a standard of guidelines and criteria used as the basis for construction guidance in their respective regions [2]. Under this guidance, the construction training for the workforce conducted by the government shall be by the competence requirements of the workforce. As stated by Spencer-Spencer [3], competence is a part of character within an individual with regards to the effectiveness of its work performance.

The current result of field observation showed that the construction workforces in Central Sulawesi are mostly not competent in its field where they only work based on their experiences or work to fill the activities. These things obviously affect the performance of the workforce, such as Wibowo [3], including their productivity, quality, punctuality, cycle time, resource utilization and cost.

Based on the lack and weaknesses of the performance of construction workforce in Central Sulawesi, the researcher is keen to conduct further research on the performance of construction workforce in Central Sulawesi and the factors affecting it. The purpose of this research is to understand the relationship between government's role, workforce competence, and construction workforce's performances.

2. Literature Review

2.1 The Role of Government

The regional government is the head of a region and as an element to run the regional governance. Under the government regulation no. 30 the year 2000 article 7 on the Conduct of Construction Service Training, "Provincial government, regional government and the municipal government shall organize the Construction Service Training" in which one of its duties is on the development of human resources [5]. In the law no. 23 of 2014 on regional government, it is explained about the division of authority on the task of training & coaching between the local and central government with regards to the construction service training. More recently, under the construction service law no. 2 of 217 chapter VIII, the training of construction service is the responsibility of regional government. The role of government includes (a) government support, such as support of infrastructure facilities as well as fund support for the workforce. (b) the implementation of policies from the laws including the implementation of regional regulations regarding wage of construction workforce and their placement by their competence areas. (c) organizational training including cooperation with labor organizations in training the workforce.

2.2. Workforce Competence

Wibowo explained that competence is the ability to conduct a job or task based on skills and knowledge also supported with work attitude demanded by the job [4]. Under the government regulation no. 23 of 2004 on National Agency for Professional Certification (BSNP) Article 1 Paragraph 1 and 2 sub-paragraph B which stated that the Indonesian National Work Competence Standard is a formulation of workability that covers the aspects of knowledge, skills, expertise and works attitude relevant to the completion of duties and position terms set under the current regulations [6].

The workforce can be defined as any person that can work both inside and outside the working relationship to produce service or goods to fulfill their own needs and the society. Ervianto defined workforce as one of the resources difficult to manage [7]. It can be concluded that construction workforce is people that can work in a construction environment.

Based on the description above, it can be inferred that workforce competence is a set of knowledge, skills, and work attitude that must be owned by the people who works in a construction environment. The competence in this research covers the competence of knowledge, skills and work attitude.
2.3. The Performance of Construction Workforce
Rifai & Basri brought multiple definitions of work performance by many management experts [8] including: (1) work performance as a set of result achieved and refers to the execution of requested work [9]; (2) performance is one of the total set of work within a worker [10]; (3) performance is motivation function and the ability to work in which a person must have a degree of willingness and a certain label of ability [11]. Suntoro (in [12]) stated that performance is a description of the achievement level of the conduct of a program or implementation of policy in achieving organization’s aims, visions, and missions which are within the organization’s strategic planning [12]. Rue & Bayars (in [12]) defined performance as a degree of accomplishment. Wibowo defined performance as a process of work to achieve work results [3].

Amstrong also classified few measurements of work including [1]: (1) money measurement, it is used to maximize income, minimize outcome and increasing income level; (2) time measurement, to work as scheduled; (4) influence measurement, including standard accomplishment, changes in behaviours, physical complementary work, and level of service acceptance; and (4) reaction, showing how others value the workers and therefore is objective. Wibowo also classified performance measurement including (1) productivity; (2) quality; (3) punctuality; (4) cycle time; (5) utilization of resources; and (6) cost [4].

Based on the above explanation elaborated by experts, we can conclude that the measurements of construction workforce performance that can be used are (1) work result; (2) working activities; and (3) competence possessed (certified).

2.4. Previous Researches
1. This research is titled “Supply Demand resources on construction in Central Sulawesi” [13]. It concludes: (1) There is still no conformity between the supply and the demand for human resources of construction supporting the implementation of construction works in Central Sulawesi Province, and there are still some of the less competent and professional road experts in their work; (2) the result of the supply and demand in road construction human resources in Central Sulawesi showed that there is only 24.6% (318 people) compared to the needs (1292 people) in 2012.Meanwhile, seeing from the graduation of the Faculty of Engineering in Central Sulawesi, the average number of graduates per year is about 25.3% (246 people) compared to the need (974 people), assuming all graduates work according to their field.

2. The research is titled "The Role of Government in Increasing Community Participation in the Development of Toundanou Village of Toluaan Sub-district of Southeast Minahasa Regency" [14]. The conclusions are: The role of government in implementing policy about increasing community participation in the implementation of development play well importance.

3. Research entitled "The Influence of Public Participation and Government Participation in Land Acquisition Process for Toll Road Development Project in Surabaya" [15]. The conclusion is: the influential factor of the government's role is the timeliness of service.

3. Research Method
3.1. Research Location
The research took place in Central Sulawesi, the largest province in Sulawesi island with the land area of 68,033,00 km2. The northern part of Central Sulawesi Province is bordered by the Sulawesi Sea and Province of Gorontalo, the eastern part is adjacent to Maluku Province, the southern border with South Sulawesi and Southeast Sulawesi provinces, and the western part is limited by the Makassar Strait. The data in this research was taken from all districts including Banggai Kepulauan, Banggai, Banggai Laut, Morowali, Morowali Utara, Poso, Donggala, Tolitoli, Buol, Parigi Moutong, Tojo Una Una, Sigi, dan Palu city.
3.2. Research Design
This research is descriptive-correlation research. It is said to be descriptive because the researcher is trying to obtain information that is in accordance current condition [16]. The researcher tries to describe the data. The population in this research are the contractor, field supervisor and project owner who carry out construction work in Central Sulawesi Province. The primary data collection used direct questionnaire technique with 42 respondents while the secondary data regarding the number of current construction projects and regional (district) data on construction works are obtained from the data of Ministry of Public Works. Data on the number of construction workers are taken from the Provincial Construction Services Development Agency (LPJK). Data analysis technique is done after the questionnaire collected that is as much as 42 respondents and calculated by using statistic with the support of SPSS software.

4. Results and Discussion

4.1. Instrument Validity and Reliability
To test the instruments’ validity and reliability, the analysis is conducted with the help of SPSS. The following is the result of validity test. For the level of validity, the significance is tested by comparing the value of r arithmetic with r value.

| No | Code | Questions                                                                 | Correct Item Total Correlation | r table | Valid |
|----|------|---------------------------------------------------------------------------|--------------------------------|---------|-------|
| 1  | P13  | The government always supports the facilities and infrastructure of the implementation activities of the competency test of construction workers. | 0.596                          | 0.3044  | Valid |
| 2  | P14  | The government always supports the implementation of the training of construction workers | 0.618                          | 0.3044  | Valid |
| 3  | P15  | The government always provides funds for the empowerment of workers in proportion to the number of construction services work in Central Sulawesi | 0.541                          | 0.3044  | Valid |
| 4  | P16  | The government always implement the policy with regards to the current laws related to the placement of the competence of construction workers | 0.559                          | 0.3044  | Valid |
| 5  | P17  | The government always implement the policy with regards to the current laws related to the wages of construction workers in Central Sulawesi | 0.627                          | 0.3044  | Valid |
| 6  | P18  | The government makes local regulations for the benefit of empowerment, protection of construction workers by national laws | 0.658                          | 0.3044  | Valid |
| 7  | P19  | The government conducts cooperative activities with the organization of labor in carrying out guidance for construction workers | 0.641                          | 0.3044  | Valid |
| 8  | P1   | The construction workforce can understand                                   | 0.683                          | 0.3044  | Valid |
job descriptions

| 9 | P2 | Construction workforce can process job directions clearly | 0.753 | 0.3044 | Valid |
| 10 | P3 | Construction workers can think according to their competence | 0.557 | 0.3044 | Valid |
| 11 | P4 | Construction workers have skills according to their competence | 0.627 | 0.3044 | Valid |
| 12 | P5 | Construction workers have work-related experience | 0.777 | 0.3044 | Valid |
| 13 | P6 | Construction workers can quickly accept the use of renewable technology in jobs | 0.570 | 0.3044 | Valid |
| 14 | P7 | The construction workforce has a high discipline in working | 0.570 | 0.3044 | Valid |
| 15 | P8 | Construction workers can communicate well in the field | 0.556 | 0.3044 | Valid |
| 16 | P9 | Construction workers have ethics & good behavior in work | 0.559 | 0.3044 | Valid |
| 17 | P10 | The construction workforce is responsible for the work | 0.508 | 0.3044 | Valid |
| 18 | P11 | Construction workers never give up in work | 0.680 | 0.3044 | Valid |
| 19 | P12 | Construction workers appreciate working time | 0.579 | 0.3044 | Valid |
| 20 | P20 | Construction workers are skilled in carrying out work by the standards specified. | 0.525 | 0.3044 | Valid |
| 21 | P21 | Workforce performs work following the result targets | 0.727 | 0.3044 | Valid |
| 22 | P22 | Workers are active in carrying out work following work procedures | 0.674 | 0.3044 | Valid |
| 23 | P23 | The workforce works according to the planned schedule of the work. | 0.679 | 0.3044 | Valid |
| 24 | P24 | The workers have competence in accordance with the skills needed in the field work | 0.606 | 0.3044 | Valid |
| 25 | P25 | Workers have competency certificates according to their skill levels. | 0.631 | 0.3044 | Valid |

From the table above it can be seen that each question item has a count > of 0.325 and positive value. Thus, the item in question is declared valid. Also from the description of the table above, it can be seen that each variable has Cronbach Alpha > 0.60, meaning that the variable of Competency, Government Role and Performance can be said as reliable.

**Table 2. Cronbach Alpha**

| Variable                  | Cronbach Alpha | Information |
|---------------------------|----------------|-------------|
| Role of government (X1)   | 0.628          | Reliable    |
| Competency (X2)           | 0.678          | Reliable    |
| Performance (Y)           | 0.645          | Reliable    |

4.2. Correlation and Determination Coefficient

Multiple linear correlation coefficients are the index number used to measure the relationship between two variables. The coefficient of determination has a function to explain the extent to which the ability of the dependent variable (Performance) to independent variables (Role of Government and...
Competence). The processed statistical results of the program assisted by SPSS 16.0 for windows shows that:

### Table 3. Summary Model

| Model | R  | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | Durbin-Watson |
|-------|----|----------|-------------------|-----------------------------|------------------|--------------|
| 1     | .911\(^a\) | .830    | .821              | .73046                      | .830             | 94.936       | 2            | 39           | .000         | 1.785       |

The correlation coefficient (R) test between Performance (Y) variable with Competence variable (X1) and Government Role variable (X2) obtained the result of 0.830 meaning that the independent variable can explain the dependent variable equal to 83%, while the other 17% is explained by other variables that are not included in this model (not researched).

### Table 4. Coefficients

| Model       | Unstandardized Coefficients | Standardized Coefficients | Collinearity Statistics |
|-------------|-----------------------------|---------------------------|-------------------------|
| (Constant)  | .274                        | 1.871                     |                         |
| GOVERNMENT  | .401                        | .075                      | .506                    | .484                  | 2.066       |
| COMPETENCE  | .264                        | .053                      | .477                    | .484                  | 2.066       |

The result of the regression equation is:

\[
Y = 0.264X_1 + 0.401X_2 + 0.274, \tag{1}
\]

the regression coefficient interpretation is as follows:

1. The value of \(c = 0.274\) meaning that other factors other than competency and government’s role influence performance. The contribution of other unpredictable factors is 0.274.
2. The value of \(A = 0.264\) meaning that if the competency increases by one unit then there will be a performance increase of 0.264.
3. The value of \(b = 0.401\) meaning that if the government’s role increases by one unit, then there will be an increase of 0.401 in work performance.
4. \(R = 0.911\), meaning that there is a strong correlation between the independent variables of \(X_1\) and \(X_2\) with the dependent variable \(Y\).
5. \(R^2 = 0.830\) meaning that about 83.0% variation of independent variables \(X_1\) and \(X_2\) can explain the variation of \(Y\) independent variable. Based on the above regression formula it can be concluded that the performance of construction workers depends on competence factors and the role of government.

### 4.3. Role of Government

The role of Government is the most influencing factor on the performance of construction workers. From the calculation results, indicating that if the role of government increases by unit then there will be a performance increase of 0.401. So the role of government in Central Sulawesi is very necessary
for improving the performance of its workforce. This is following Act No. 2 of 2017 concerning Construction services, which states that the role of local government determines in progress in the field of construction services [14].

The results of the research indicate that the government's role is among others: government support, policy implementation of the applicable law, and organizational development. In the provision of paragraph (1) section b, the governor as the representative of the Central Government in the regions has the authority to (a) organize supervision on the selection of service providers in the implementation of Construction Services; (b) to organize supervision of construction and contract activities to conduct an orderly supervision of the implementation and orderly utilization of Construction Services in the province. In article 7, it states that the authority of the Provincial Government in the sub-affairs of Construction Services includes: (a) the holding of training of construction experts; And (b) Provision of the information system of Construction Services coverage of the provincial area.

Due to the immense importance and influence of the government, it is expected that the government will be able to support the training of construction workforce, the government provides funds for empowerment of workers in proportion to the number of construction services work in Central Sulawesi, the government implements the policies related to the placement of competence of construction workers, the government makes local regulations for the benefit of empowerment, and the government carries out cooperation activities with the organization of labor in carrying out guidance for construction workers.

4.4. Construction Workforce’s Competency
Competence of construction work also influences the performance of construction workers in Central Sulawesi but less than the influence of the government's. The competence of construction workers here is measured by the components of knowledge, skills, and attitudes, and in other words, these components have a high validation in reflecting the competence of construction workers. The calculation results showed the value of $a = 0.264$ which means that if the competence increases by one unit then there will be a performance increase of 0.264. This is in line with the Construction Services Act no 2 2017 in Chapter VII section 70 stating that every construction worker working in the field of Construction Services must have a Work Competency Certificate, and each Service User and/or Service Provider shall employ the workforce Construction that has a work competency certificate as referred to in paragraph (1). Work competence certificates as referred to in paragraph (1) shall be obtained through a competency test following the standard of work competence.

It is also in line with the Regulation of the Minister of Public Works Number: 09 / PRT / M / 2013 about the Competency Requirements for Sub communication of Experts and Skilled Workers in the Ministry of Public Works Construction Services, in Article 4, Paragraph 1 states that an individual who provides construction services or an individual employed by a business entity providing construction services must have a certificate in accordance with the qualification level.

4.5. Construction workforce’s performance
The performance of the construction workforce is measured by the approach of the work achieved, including the results of work, work activities and the level of competence possessed. Based on the result of the research, the role of government is very influential compared with competence factors. It can be concluded that the role of government in increasing work performance includes: (a) support in infrastructure facilities in every activity related to the conduct of labor competency test;(b) support in construction workforce training activities;(c)fund support in any construction empowerment activities; (d) it is expected that local governments can implement the current laws relating to the placement in accordance with competence, remuneration, protection of construction workers as well as in the development of appropriate regional regulations; and (e) the government may cooperate with existing labor organizations in carrying out its workforce development.
Wibowo stated that performance is a process how the work takes place to achieve the results of work [4]. Similarly, as stated by Wibowo, that competence is an ability to perform or perform a job or task based on skills and knowledge and supported by the work attitude demanded by the job [4]. So the competence of the workforce is also needed in improving the performance of the workforce, although the influence of competency is not as tight as the role of government. So it can be concluded that although a region has a lot of competent workforces but no support at all from the local government can impact to the workers seeking for appreciation outside the province or even abroad. Therefore, the local government must pay attention in handling this issue.

From the description above, it can be concluded that the workforce that has high performance are:
(a) have the work results in accordance with the what has been planned; (B) having a good work activity which are the attitude and behavior in carrying out the work; and (c) and has competencies appropriate to its field of work and may be indicated by the certificate it holds.

5. Conclusion and Recommendations
Based on the results of the research analysis it is concluded that the role factor of the government has a strong influence of 0.401 on the performance of local workforce if the role of government increases by unit then there will be a performance increase of 0.401. While the competence of construction workers has an effect of 0.264 on labor performance, meaning that if the competence increases by one unit then there will be a performance increase of 0.264. This shows that the role of government in Sulawesi Province is very necessary for improving the performance of its workforce.

5.1. Recommendations
- Both the central and regional government is recommended to fully support the workers' empowerment to achieve the increased level of work performance.
- It is recommended for the policymakers to take the benefits of this study as a reference in observing and increasing the performance of construction workforce.

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