The Role and Function of Mandor in Construction Project Organization in Indonesia

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Abstract

In a typical construction project organization in Indonesian, mandors are positioned as personnel responsible for leading a group of workers in the construction industry, who are also often regarded as the most important agent in the construction operation. Having the status of being the key linkage between the management and the construction workforce, mandors are expected to play important role in influencing workers’ performance and productivity, as well as the safety and quality of construction works. Traditionally, mandors functioned as the supplier of workers to the construction project. Mandors, many of whom are also relatives or having closed tie to workers, are responsible to bring the workers from the village to the construction sites in the cities. As informal leaders with strong social and emotional binding with their fellow workers, mandors played important role in reshaping workers attitude toward work.

In recent years the role and function of mandors have shifted from traditional supplier of workers to become foremen who lead group of workers that do not necessarily possess the traditional closed bonding with them. With the shifting from traditional to a more modern construction method and technology, many believed that the industry can make use mandors’ key role for the improvement of the construction industry in Indonesia. This paper discusses result of research involving survey to both the management and construction workers that seeks to determine the shifting role and function of mandors in construction project organization, as well as finding ways for improvement that are more appropriate to the new setting of the construction industry.

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Selection

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1. Introduction

Construction worker plays a great role in shaping the industry. Not only because worker constitutes a large part of construction cost and numbers of worker hours, it also more susceptible to the influence of management than those of material and capitals (Kho ramshahi et al. 2006). As the national economic grows, recent study by the BPS-Statistics Indonesia shows steady growth of construction employment, that this industry currently employs more than 5 million people which representing about 5.3% of all workers in all industries (BPS. 2010). With such an important role Indonesian construction workers should have received more attention in order to better promote its role in the industry.

Despite the promising growth of the industry, little has changed that reflects the improvement of worker management in the Indonesian construction industry. For instance, the education of construction worker remains low, where more than 50% of all construction workers are only elementary school graduates of less. Even worse, 1.5% of them had never received any formal education at all (Soemardi, et al. 2009). What is more, the poor quality of construction worker is also reflected in the number significantly low number of skilled trade workers who have been registered and certified (LPJKN. 2010). Indeed, elevating such problem is a very difficult task for both the government and the industry, and perhaps a strategic approach will be to identify and utilize the most influential elements of the construction worker management. In this case, the industry can make the most of role and function of construction foreman as the key to improve worker management.

Embarking from the above-mentioned issue, this paper has the objective of determining the role and function of foremen in Indonesian construction industry. Such issue is considered important to address the characteristics and unique position of foremen in the Indonesian construction project organization.

2. Construction Worker Management in Indonesia

In Indonesia, construction workers are not workers by trade, but traditionally, especially in Java, came from agriculture sectors. A seminal study by Sjahir (1995) drew attention to the transformation of construction workers from the traditional agricultural profession. After harvesting their crops, most farmers would leave their fields to look for temporary jobs in the city while waiting for next planting seasons. When construction work was over, they then returned to their farming in the villages. Like most villagers, they only had little or no formal education, and because possessed no other skill but farming, their construction skill was limited to hard workers in excavation or other simple task, such as server for skilled (trade) workers. While the majority remained as unskilled hard workers, through years of apprenticeship some of these workers managed to climb up become skilled workers, such as mason, carpenter, or even steel workers. Typically those village-based construction workers were recruited by mandors from village. Mandor is similar to those of construction first-line manager or foreman, whose job responsibility includes managing and supervising a group of construction workers. These mandors, many of whom were also relatives or having closed tie with the workers, were responsible to bringing the workers from the village to the construction sites in the cities. Within this arrangement workers did not have direct or formal contract with the construction company. Instead, mandors signed contract on behalf of his fellow workers, either on the forms of lump sum or unit price contract. Therefore, the method of works and productivity would depend on a type of agreement between mandors and the construction companies.

A slightly different situation found in the construction area outside the island of Java. Due to inadequate supply of local workers, skilled and experienced workers from Java Island were often hired for work in projects outside Java Island. In recent years, where most of rice fields are depleting due to conversion into other land use, the number of farmers who chose to return to farming was reduced
considerably. Worse yet, due to their lack of education and skill, most of the construction workers remained as free workers, who worked from one project to another as hard worker.

2.1. Mandor Position in Indonesian Construction Industry

In Indonesian construction industry organizational structure, mandor is positioned as foreman responsible for a group of workers. Traditional emergence of mandors makes them informal leaders, with a very strong social and emotional bind with their fellow workers, which in turn play important role in reshaping their workers attitude toward work. Despite such importance, mandors are still considered lack of high awareness to enhance their technical capabilities in the field. This is presumably related to the level of basic education that the majority of mandors tend to be still low. Yet, in today’s construction industry mandors are still regarded as the most important agent in the construction operation.

In the past, although this practice remains widely exist, mandors were usually hired to supervise the construction of simple housing or other simple structures. In a typical housing construction, mandor entered an agreement with the homeowner-to-be to deliver the house. Mandor will lead, manage, and supervise a group of different trade workers to work in harmony to complete the project. It is also not uncommon that mandor also is responsible for purchasing materials. In short, mandor plays the role of contractor. Today, the involvement of mandors in construction industry has changed considerably.

With the shifting of construction practices from traditional to a more modern construction method and technology, the role and responsibility of mandors have changed as well. Today most mandors’ works are not limited to individual simple housing construction, but expanding to more complex constructions, such as high-rise building or other complex structures. Here, they are no longer acted as independent contractors but be part of the overall contractor workforce. Mandor no longer function as the center of the whole construction process but becoming foremen for a group of construction workers. In spite of everything, many continue to believe that the industry can make use mandors’ key role for the improvement of the construction industry. As the key linkage between the management and the workforce, mandors are expected to manage the work and the workforces in achieving the project goals at the operation levels, such as improvement of productivity, and play important role in workers’ performance, as well as safety and quality of works, where a well planned accident prevention program shall also lead to increase in construction productivity (Soemardi et al. 2009)

2.2. Mandors’ Role and Competence in Indonesian Construction Industry

Leadership has been regarded as one of the aspects that influence project success. While the leadership at project management level has proven to contribute to project team trust and success, the impact of leadership at lower level has yet to be determined. At the national level, the industry and government must also recognize the strategic position of mandors and to make use of them as agent of change for the construction workers.

Due to this very important role of mandor, it is necessary to increase mandor competency of both the hard competencies (hard skills) and soft competencies (soft skills). Meanwhile, nowadays more attention is giving to increase hard skills competency. However, the effectiveness of improvement mandors’ hard skill is influenced by their soft skills. So effort to increase the hard skill must be accompanied by improvement their soft skills too. To do this, profile of mandor competency is needed to obtain information about the current description of their soft skills. Measurement of mandor competency can be initiated by developing competency model first. Competency model is a collection or a combination of the competencies required to perform a role in the organization effectively and may become as a standard reflecting the expected level for performance (Spencer and Spencer 1993).
A study on mandor’s role and competence (Soemardi et al. 2010) profiles of competence required for mandors, which is grouped into the following categories: achievement and action, helping and human service, impact and influence, managerial, and cognitive competences. Result from this study indicated that the most demanded competence for mandor position is the dimension of information seeking. Playing as central role in construction project, a mandor is expected to excel in communication in a variety of information through top-down and bottom-up structure.

In mandors’ opinion, the study concluded that the previously regarded important role of mandors as an informal leader and protector of the group has slightly shifted to the quality of leadership that requires strong technical and managerial competence. This view was shared by their workers who valued their superior in terms of the cognitive competence rather than impact and influence. Quite contrary, though, was the view of managers. The project managers and contractors agreed that mandor’s competence in helping and human service is the most important characteristic of mandor’s role as informal social leader amongst workers.

3. Study Methodology

This study aims at identifying the role and function of mandor in construction project organization by way of soliciting response from mandor and contractors. This study was started by identifying scope of work and responsibility of a mandor, which was first developed by combining return from a preliminary survey to contractors, mandors, and construction workers with the Indonesian Occupation Classification (Depnaker and BPS 1982). Once the scope of work and responsibility was developed, the next step is to determine the expected kind of role and managerial function, as well how often, should a mandor play to accommodate those scope and responsibility. The questionnaire about mandor’s role consisted of 34 questions that were grouped into 10 main role categories: figure head, leader, liaison, monitor, disseminator, spokesman, entrepreneur, disturbance handler, resource allocator, and negotiator. These ten roles of mandor then are grouped into three major managerial roles. Interpersonal role is reflected by the roles of mandor as figure head, leader, and liaison. Informational role is reflected in monitor, disseminator, and spokesman, whereas major managerial role of decision maker is reflected in entrepreneur, disturbance handler, resource allocator and negotiator.

The questionnaire about mandor’s function consisted of 33 questions that were grouped into five managerial main functions: planning, organizing, actuating, and controlling.

At the same time another set of questionnaire was also distributed to contractors to determine how satisfy they are with the role and function currently play the by mandors. Result from this set of questionnaire will then be combined with the result from contractors’ expectancy to determine level of satisfaction to mandors’ performance.

4. Data Analysis and interpretation

The questionnaire and interview involving 17 project managers representing contractors, and 19 mandors involved in 17 construction projects was conducted at two major comparable cities. The respondents were asked to state their expected frequency of each role and function of mandor in the scale of 1 to 5, with 1 for never, 2 for seldom, 3 for sometimes, 4 for often, and 5 for always. In similar way, contractors were then asked to evaluate current role and function of mandors in the scale of 1 for highly dissatisfied to 5 highly satisfied. Summary of the result are presented below.
### Table 1: Expected Role of Mandor

| Role         | Contractor | Mandor | Difference | Major Managerial Role | Contractor Satisfaction Rate | Distance from Highly Satisfied | Remarks |
|--------------|------------|--------|------------|-----------------------|-----------------------------|-------------------------------|---------|
| Figurehead   | 4.38       | 4.50   | -0.12      | Interpersonal         | 3.32                        | 1.68                          | Lower   |
| Leader       | 4.27       | 4.20   | 0.07       | Interpersonal         | 2.93                        | 2.07                          | Lower   |
| Liaison      | 4.53       | 4.32   | 0.21       | Interpersonal         | 3.48                        | 1.52                          | Lower   |
| Monitor      | 4.78       | 4.60   | 0.18       | Informational         | 3.15                        | 1.85                          | Lower   |
| Disseminator | 4.37       | 3.53   | 0.84       | Informational         | 2.97                        | 2.03                          | Lower   |
| Spokesman    | 4.74       | 4.39   | 0.35       | Informational         | 3.36                        | 1.64                          | Lower   |
| Entrepreneur | 3.65       | 3.47   | 0.18       | Decision maker        | 2.68                        | 2.32                          | Higher  |
| Disturbance Handler | 4.62 | 4.75 | -0.13       | Decision maker | 3.18 | 1.82 | Lower |
| Resource Allocator | 4.52 | 4.64 | -0.12       | Decision maker | 3.25 | 1.75 | Lower |
| Negotiator   | 4.65       | 4.08   | 0.57       | Decision maker        | 3.48                        | 1.52                          | Lower   |
| Average      | 4.49       | 4.52   | -0.03      | Indifferent           | 3.14                        | 1.86                          | Lower   |

In general there is no significant difference between contractors’ expectation and what mandors acknowledged as their role in a construction project. The average value for mandor’s role in contractors’ point of view is 4.49. This means that altogether contractor agreed that mandors are expected to always play all those main roles. Both respondents, however, seemed to agree that mandors are not expected to play significant role of entrepreneurship. Comparing the two points of view, one can conclude that contractors seem to expect mandor to be more active in playing the role of representative of contractor in communicating or conveying work order to the workers.

### Table 2: Expected Function of Mandor

| Main Function   | Score by Contractor | Score by Mandor | Difference | Contractors’ Satisfaction Rate | Distance from Highly Satisfied | Remarks |
|-----------------|---------------------|----------------|------------|-------------------------------|-------------------------------|---------|
| Planning        | 4.31                | 4.70           | -0.39      | Mandor                        | 3.10                          | 1.21    | Lower   |
| Organizing      | 4.80                | 4.78           | 0.02       | Indifferent                   | 3.11                          | 1.69    | Lower   |
| Actuating       | 4.37                | 4.31           | 0.06       | Indifferent                   | 3.01                          | 1.36    | Lower   |
| Controlling     | 4.65                | 4.47           | 0.18       | Indifferent                   | 3.08                          | 1.57    | Lower   |
| Average         | 4.57                | 4.68           | 0.11       | Indifferent                   | 3.07                          | 1.50    | Lower   |

Table 2 indicates that a general agreement was reached between the two sides, which mandors are expected to fully function in all four aspects of management. However, mandors seem to believe that they should function more in planning than what was expected by the contractors. This can be interpreted as the demand for greater role of mandor in planning the field work within their respective group.

On average, contractors were only fairly satisfied with how mandors playing different roles and functions in construction project. In particular, contractors expected mandor to perform much better in playing the role of leader, monitor, disseminator, spokesman, disturbance handing handler, resource
allocator and negotiator. Equally low satisfaction was reflected in all managerial functions that mandors are currently performing.

5. Conclusions

Despite all equally high expectation in mandors’ roles and functions, in particular the study has shown that contractors tend to expect mandor to play high informational role. Such a notion was reflected on high degree of expectation on mandors’ role as monitor, disseminator and spokesman. Contractors seem to expect mandors be their subordinates that play important role as the key person who will convey all top-down flow of information to the workers. This expectation is in contrast with what the mandor think. This study suggests that strong interpersonal role seems to be consistent with mandors’ traditional role as the informal leader and work-provider for their men.

In can be concluded that mandors’ competence profile would have a great influence in helping the Indonesian construction industry to shift from a traditional simple construction work to a more complex construction project, which calls for mandors to change their perspective on roles and functions. While traditional roles of mandors may remain unchanged in much of urban area, in the modern cities the trend is changing. In a modern construction area, where mobility of workers is high, mandor can no longer play the role of supplier of workers or sub-contractor but are expected to become part of the contractor’s project organization. This position enables mandors to be assigned as true professional foremen that lead a group of workers whom they do not have closed traditional relationship.

Further, the industry must then realize that expecting mandor to become a professional foreman entails enhancement on both technical and managerial skills, as well as fulfillment of registration and certification. Therefore, it is for the best interest of the industry and government that they bear the responsibility to provide adequate support through training and education.

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