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Improving skill's strategies of Indonesian construction labours to have global competitiveness

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ABSTRACT

Labours is one of important element in the continuity and implementation of construction projects. Availability of labours that have good skills is a key factor to get a good quality product. Profile of construction labours in Indonesia showed that 62% of the total construction labours is unskilled labours. This study aims to get appropriate strategies to reduce the amount of unskilled labours and also to improve the skills of construction labours to have global competitiveness. The data were collected through in-depth interviews to the stakeholders involved in the coaching skills of Indonesian construction labours, that are the Construction Services Development Board, Ministry of Public Works and the Ministry of Labours. The data were validited by Delphi method and analyzed descriptively. The results showed that the strategies that must be implemented to improve the skills of construction labours is certification, standards and training, coordination, awareness, clearinghouse and research.

Keywords: Construction labours, skills, strategies, global competitiveness.

1. Introduction

The construction sector has a very strategic role in development, primarily in the provision of infrastructure and facilities and infrastructure that support the development of a country. Currently the construction sector continues to experience rapid growth, these developments affect the increased needs of the elements associated with the construction services sector, one of which is labor. Workforce is one of the important elements that affect the continuity and smooth implementation of construction projects (Adlin, 2005).

Muya et.al (2004) stated that in future the construction industry requires a skilled construction workforce (skilled labor), with specific skills. Availability of skilled labor is a major factor to obtain a quality product. There was also an important factor to gain customer confidence in an industry.

According to Odusami (2002), skills can be defined as the ability to perform the task well or better than average. Skills can also be described as the ability to translate knowledge into action. Katz (1974) proposed three types of skills as an approach to understanding skills. These skills are technical skills, human skills and conceptual skills. Technical skills related to the object, related to human skills and human skills conceptual associated with the idea. These three concepts have implications for skills development implementation. Katz said that the workforce requires the same level of competence in all of skills (Rizwan, 2008). Data from the Department of Public Works stating the amount of labor in the construction sector in 2009 reached 5.2 million people (4.71% of the national workforce). Based on that number,

8% classified as experts, 30% classified as skilled labours, and the rest classified as unskilled labours. Several strategies have been undertaken by the Indonesian government to increase the number of experts and skilled labours in the construction sector, however, several problems causing these strategies have not been going well. This study aims to get better strategies to improve the skills of construction labours in Indonesia.

2 Fundamental theory

2.1 Skills in construction sector

Mulya et.al (2004) stated that the effectiveness of the construction industry in each country in the future will depend on the quality of labours education and training. Availability and need for skilled labor will increase. Several studies (Odusami, 2002; Odusami et al., 2007; Charlesraj et al., 2004; Gushgari et al., 1997; Mulya et al., 2004; Farrell and Gale, 2003) have examined the fundamental skills needed to improve the performance of the construction industry.

Odusami (2002) defines skills as the ability to perform a task well or better than average. It also is defined as the ability to translate science into action. Gushgari, et.al (1997) defines some skills, communication skills is defined as the ability to interact effectively with other people at all levels, administrative skills is defined as the ability to regulate and control the project in relation to cost constraints, while the decision-making skills is defined as the ability to take appropriate actions under the constraints of time, information and resources. Kate (1974) identified three categories of managerial skills are fundamental to achieving the success of management, namely technical, human and conceptual. Technical skills include process, knowledge and expertise, human skills include the ability to interact effectively with others, while the conceptual skills include formulation of an idea. So it can be said that the technical skills to deal with the matter, human skills associated with human and conceptual skills must be done with the idea.

Odusami (2002) suggests that managers levels in an organization is determined by the ability of technical, human and conceptual owned. For example, supervisors need to set the appropriate technical skills or areas of expertise. While the top-level managers need conceptual skills to monitor the organization. At all levels of management need human skills to interact and communicate with others. Construction labours at the level of skilled labours, in desperate need of the kinds of essential skills and technical skills.

2.2 Profile of Indonesian construction labours

The construction sector is one of the main pillars of the national economic development. Developments affecting the construction sector not only to economic life, but also a positive impact on community social life. Social cohesion in society and economic progress can be awakened with a variety of actors working in the construction industry. The existence of various kinds of construction labours, such as schools, business centers, government buildings, bridges, highway infrastructure to create a motion supporting the economy as well as socio-cultural life of a nation.

Data from the Department of Public Works stating the amount of labours in the construction sector in 2009 reached 5.2 million people (4.71% of the national workforce). Viewed from the aspect of education, quality of construction sector employment in Indonesia is still low, with 58.6% under the elementary education, 36.5% of junior school education / high school

education and 4.9% Diploma / University. In the structure of construction services, labours involved grouped into experts and skilled, and unskilled laborers. Study the distribution of the working group provided data that 8% classified as experts, 30% classified as skilled labours, and the rest classified as unskilled labours.

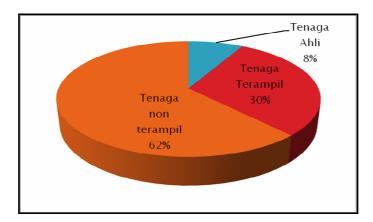


Figure 1: Construction Labours Profile depend on their skills

3. Research methodology

The data in this study obtained through literature review and in-depth interviews with stakeholders involved in the skills development of construction labours that are the Ministry of Public Works, Ministry of Labours and Construction Services Development Board. Research instruments used were questionnaires. At the final stage the Delphi method was applied for confirmation and validation of the proposed strategy to increase skills of construction labours.

4. Result and discussion

4.1 Currently skills improvement strategy

Increasing the skills of construction workers, will have an impact on increasing the bargaining power and welfare of construction labours, while improving productivity and quality of construction. Skills development of construction labours involving the Ministry of Public Works, Ministry of Labours and Construction Services Development Board, as shown in Figure 2.

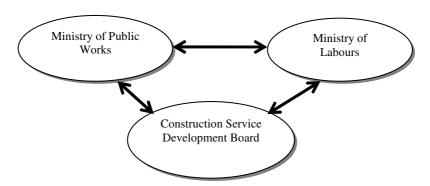


Figure 2: Stakeholder in Skills Development of Construction Labours

Since 2008, strategies to improve the skills of construction workers in Indonesia have been carried out through three-in-one program that is integrating training, certification and coordination. The strategy is expected to increase the competence and competitiveness of Indonesia's labours (Kirmanto, 2008). Figure 3 following is the scheme of current strategies to improve construction labours skills.



Figure 3: Current Strategies to Improve Construction Labours Skills

4.2 Evaluation of current skills improvement strategy

Implementation of three-in-one strategy was still far from the expected. The following are the evaluation of three-in-one strategy implementation.

a. Results Evaluation of Certification Strategy

The material in the process of skills certification just to accommodate the needs of technical skills, while the essential skills has not been accommodated. The certification process is considered too complicated and expensive. Moreover there is no rule of law for labours who do not have a certificate of skills.

b. Results Evaluation of Standard & Training Strategy

Construction labours awareness of skills training is lacking. It's caused by the high cost of training and there is no guarantee to get a job with better salary. Skill standards that are used in the training of construction workers, has been unable to meet the needs of service users.

c. Results Evaluation of Coordination Strategy

Despite the Memorandum of Understanding between the Ministry of Labours, Ministry of Public Works and Construction Service and Development Board, but in practice there is no coordination to improve the skills of construction labours. In addition there has been no information center that provides information about the standard of skills required by service users.

4.3 The proposed strategy to improve construction labours skills

This study tried to assess strategies to improve the skills of construction workers. Types of skills that will be improved is the essential and technical skills. The efforts to improve labours skills can be done by six alternative activities, namely certification, research,

awareness, clearinghouse, coordination, standards and training. Figure 4 following is a schematic of proposed strategy in construction labours skills development.

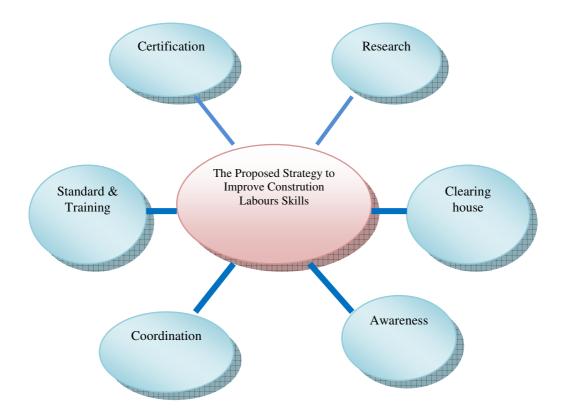


Figure 4: Proposed Strategy to Improve Construction Labours Skills

4.3.1 Certification Strategy

Certification is the assessment process to gain recognition of competence and ability of a person, to meet regulatory requirements through competency testing. The purpose of certification is to provide a guarantee of skill, quality and work ability of construction labour, so as to produce construction products that meet established quality standards (Cahyono, 2005).

All construction labours must have employment certificates issued by professional associations or training institutions, and then obliged to register in Construction Service Development Board. The strategy should be undertaken to increase the number of construction labours who are certified, is to organize construction labours certification which includes essential and technical skills. It also provides a subsidy cost of construction labour certification for beginners and require a minimum education level in construction labours certification. Another important thing is to seek recognition from other countries towards Indonesia certificates skills so when the Indonesian construction labours working in other countries are recognized at the same skill level.

4.3.2 Standards and training strategy

Preparation of standards based on job title skills in construction is necessary for construction training can be implemented properly. Standard of skills and expertise in construction that are

currently used in Indonesia is Indonesia's National Work Competence Standards. Strategies that should be done on standards and training aspects is to review the training curriculum. It was also necessary to set skills standards appropriate to labours users needs both inside and outside the country. Another important thing is to optimize training center of construction skills in Indonesia.

4.3.3 Coordination strategy

Stakeholders involved in construction labours skills development includes of the Ministry of Labours, Ministry of Public Works and Construction Services Development Board. Efforts should be done is to coordinate between government agencies involved in the construction labours skills training. It was also necessary to empower training centers, vocational schools and department in university who organized the training of construction in order to function as a certification agency. Another effort that should be done by Construction Service Development Board is making foreign relations unit to accommodate the needs of construction labours users abroad.

4.3.4 Awareness strategy

Awareness strategy for construction labours on the importance of having the skills to improve the wages and competitiveness needs to be done. Awareness can be done in the form of campaigns and socialization. The strategies that should be done is to do with the socialization of labours certification at the time of construction labours recruitment and provide an explanation of the skills standard needed by the user.

4.3.5 Clearinghouse strategy

Information about the skills required by service users is very important to know. It is necessary to make the standards and skills training in accordance with user needs. Strategies that should be done is to establish a clearinghouse or information center that provides information about the skills needed by users of construction workers. The clearinghouse should also provide information about the standard of skills required by construction labours users in other countries, so it can open up opportunities for labours to work abroad.

4.3.6 Research Strategy

Research activities needed to support the government to make policy. Strategies should be done is to do research colaboration between the government and research institutions about the construction skills needed by construction labours users. Research is also needed to learn the skills standards set by other countries, so that the Indonesian construction labours who will work to other countries can prepare themselves.

5. Conclusion and recommendation

The evaluation of current strategy to improve construction labours skills show that the certification process is too complicated and expensive, awareness of construction labours for skills training is lacking and there is no coordination the between government and the institution related toiImprove construction labours skills. This causes skills quality and competitiveness of Indonesian construction labours is low. The proposed strategies to

improve construction labours skills are certification, standards and training, coordination, awareness, clearinghouse and research.

6. References

- 1. Adi, H. P., Ni'am, M. F. and Wibowo, M. A., (2009), Construction Labours Management Model for Migrant Labours Based on Qualification and Competency, Hibah Bersaing, Report Research, Universitas Islam Sultan Agung.
- 2. Adi, H. P., (2009), Investigating of Indonesian Construction Labours Skills Standard to Fulfill Malaysian Construction Sector Requirement, Proceeding of International Symposium On Construction in Developing Economics: Commonalities Among Diversities, Penang-Malaysia, ISBN: 978-967-5417-34-4.
- 3. Adi, H. P., (2009), Investigation of Influencing Factors in Construction Labour Management of Indonesian Migrant Labour in Malaysia, Proceeding of The 1st International Conference on Sustainable Infrastructure and Built Environment in Developing Countries SIBE-2009, Bandung, ISBN: 978-979-98278-2-1.
- 4. Barker, M., Hipkins, R. and Bartholomew, R., (2004), Reframing the Essentials Skills: Implications for and from the Science Curriculum, A commissioned research report for the Ministry of Education, Wellington, New Zealand.
- 5. Enshassi, A., Mohamed, S. and Ekarriri, A., (2009), Essential Skills and Training Provisions for Building Project Stakeholders in Palestine, Journal of Construction in Developing Countries, 14(1), pp 31–50.
- 6. Farooqui, R., (2008). Assessment of Critical Skills for Project Managers in Pakistani Construction Industry, Proceeding of Conference on Construction in Developing Countries, August 4-5, Karachi, Pakistan.
- 7. Gushgari, S. K., Francis, P.A., and Saklou, J.H, (1997), Skills Critical to Long Term Profitability of Engineering Firms, Journal of Management Engineering, 13(2), pp 46–56.
- 8. Keputusan Menteri Pekerjaan Umum No 340, (2007), Penetapan Standar Kompetensi Kerja Tenaga Terampil dan Tenaga Ahli, Departemen Pekerjaan Umum.
- 9. Liimatainen, M. R., (2002), Training and Skills Acquisition in the Informal Sector, International Labour Office, Geneva.
- 10. Nova Scotia Construction Sector Council, (2005), Essential Skills-Construction Related, Human Resources and Skills Development Canada (HRSDC).
- 11. Nursyirwan, Iwan, (2006), Tenaga Kerja Konstruksi Indonesia Perlu Pengakuan, Buletin BPKSDM, Departemen Pekerjaan Umum.
- 12. Odusami, K.T., Oyediran, O.S. and Oseni, A.O, (2007), Training Needs of Construction Site Managers, Emirates Journal for Engineering Research, 12(1), pp 73–81.

- 13. Odusami, K.T, (2002), Perception of Professionals Concerning Important Skills of Effective Project Leader, Journal of Management in Engineering, 18(2), pp 61–67.
- 14. Overtoom, C. G., (2000), Project Build: Integrating Technical and Employability Skills in Construction Industry, Information Analysis, Ohio State University.
- 15. Pritz, S. G., (1995), Building Essential Skills for The Ohio Building and Construction Industry, Final Report Center on education and Training for Employment The Ohio State University & Ohio State and Construction Trade Council.
- 16. Tong, L. F., (2003), Identifying Essential Learning Skills in Student's Engineering Education, The Higher Education Research and Development Society of Australasia (HERDSA), Conference Proceeding.