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World Building Congress 2022 IOP Conf. Series: Earth and Environmental Science 1101 (2022) 032008 IOP Publishing doi:10.1088/1755-1315/1101/3/032008 1 Competence of Indonesia workforce in facing liberalization A A D P Dewi¹, D Willar², B Trigunarsyah³ and F Makalew² ¹Department of Civil Engineering, Udayana University, Bali, Indonesia ²Department of Civil Engineering, Manado State Polytechnic, Manado, Indonesia ³ School of Property, Construction and Project Management RMIT, Melbourne, Australia anakagungdewi@unud.ac.id Abstract. Quality of the workforce affects the quality of construction projects.

It involves the ability and competence of the construction workforce, which contributes to the success of the construction projects. The paradigm transference toward liberalization leads to opportunities for collaboration between countries, but, on the other hand, it brings about tough competition. A competent workforce will survive facing such a paradigm.

As a developing country, Indonesia faces challenges in improving the abilities and competencies in the construction workforce sector. This paper reviews the existing literature to explore workforce barriers to meeting liberalization. It found that the unreadiness of the construction workforce, the lack of clarification in existing legislation, the language barrier in gaining international certification, and financial problems are the main obstacles in improving workforce competence.

This paper proposes approaches to overcome the barriers: a relook at existing legislation to provide more guidance on improving workforce competency, the need for stakeholder role in improving competence workforce, and giving affordable and accessible training and education and English course to the construction workforce. 1.

Introduction Globalization has been part of the world economy for decades.

As a result of the globalization process, trade liberalization has become a part of the business environment in the local business market. With the impact of globalization and liberalization, there are challenges that the local industries, especially construction industries, are facing [1]. Indonesia is not absent from the liberalization process since it is categorized as a developing country amongst other Asian countries.

This situation attracts other international entities outside Indonesia to enter the Indonesian industries. As Ministry Public Work reports, currently, Indonesia is listed as the largest construction services market in ASEAN [2]. Meanwhile, at the Asian level, Indonesia was listed as fourth in the construction services market with a value of US\$ 267 billion after China (US\$ 1.78 trillion), Japan (US\$ 742 billion), and India (US\$ 427 billion).

If the construction sector growth can fulfill expectations, Indonesia has the potential to be in the top three in Asia, overtaking India. However, the main issue that the Indonesian construction industry faces is an increasingly competitive market, especially in the presence of foreign players. Undoubtedly, this situation is caused by liberalization [3].

In recent years, foreign companies have been winning an increasing number and value of projects in the domestic market. Apart from specialized and highly technical projects, foreign players are also increasingly gaining various projects World Building Congress 2022 IOP Conf. Series: Earth and Environmental Science 1101 (2022) 032008 IOP Publishing doi:10.1088/1755-1315/1101/3/032008 2 in line with the need to enhance the capabilities of local players to remain competitive compared to the foreign construction players [1].

As a country with a very large market in the construction sector, Indonesia needs to be more prepared to face the liberalization of trade in goods and services. This study aims to review the existing literature to explore barriers to liberalization and approaches to improving the competent workforce in the Indonesian construction industry.

It begins with the current condition of Indonesia, however, there are issues of top strategies or approaches that can promote success in improving workforce competencies in Indonesia. 2. The Existing Condition of Workforces in Indonesia The start of the construction service liberalization era could impact the expansion of the construction workforce from ASEAN countries to Indonesia. This can be attributed to the entry of foreign forces into Indonesia in the last three years.

The **use of foreign workers** is certainly due to their higher competence in terms of skills, knowledge, and experience. Conversely, the local construction industry players must determine their role, whether as the main player, extra player or just a spectator [3]. From the previous studies, many problems are encountered regarding competitiveness due to globalization and liberalization.

The construction workforce is one of the important elements that affect the continuity of construction development. The construction work quality can be obtained if the actors **in the construction service** sector have the competence and high professionalism according to the field of work [4],[5]. Competence is **a person's ability to perform a certain activity – quality, skills, and ability to do something competently** [6].

As stated previously, the competence of workforces is becoming an issue of such a paradigm. This circumstance is determined by the **readiness of the construction workforce** in the country. **Moreover, the worker is a key factor in maintaining dominance over the national construction market and penetrating overseas markets.**

Becoming a major player in the construction market can be prepared by improving the quality **and competence of the** workforce. However, from 8 million construction workers available, only 9.6% have been certified, where a certificate is a form of recognition of the competence **of construction workers in** their respective fields [2].

It can be seen **that the construction sector in Indonesia has a** lack of certified skilled workers where this expertise is needed in market competition. **Hence, this is important and needs to be prepared within the framework of the** current workforce in the era of liberalization. Since 1994, through Law Number 7 of 1994, Indonesia has ratified the **establishment of the World Trade Organization (WTO) and become one of the 153 countries that have been registered as WTO members.**

All **WTO and AFTA members** have committed to laying the foundation for mutually beneficial agreements by eliminating various barriers to trade, including trade in construction services, to create efficient trade and fair competition. Liberalization of construction services is unavoidable. Therefore, competition **in the construction service** business is increasingly open and tough.

Based on Law Number 2 of 2017 concerning Construction Services, business entities and foreign professional workers in the construction sector are not prevented from operating and working in Indonesia [7]. This poses a challenge when most national business entities do not have sufficient competitiveness and ability to carry out efficient

and effective construction work.

The implications of the liberalization of trade in services mean opening the national market for foreign service providers and the beginning of the international market for national service providers. To date, Indonesia is still busy with debates about readiness and defensive efforts to limit the entry of foreign construction service providers into the national market.

Attention to developing national service providers' competitiveness in the face of competition with foreign business entities, both in the national market and offensive efforts to penetrate the international market, is still lacking. As a country that participates in international agreements in the service sector, Indonesia will benefit from and also feel a threat.

There is no other choice for actors in the national construction service sector to keep up with existing developments. The previous protection policy as a protector for service providers in the federal construction sector is no longer appropriate for developing trade in services in international trade. The World Building Congress 2022 IOP Conf. Series: Earth and Environmental Science 1101 (2022) 032008 IOP Publishing doi:10.1088/1755-1315/1101/3/032008 3 trade liberalization in the construction services sector must be seen as a challenge or a test for the ability and quality of the national professional workforce in this sector. The aim is to expand employment opportunities for Indonesian construction workers.

National construction service providers with a workforce are expected to take advantage of liberalization opportunities through the development of international construction market penetration. In addition, penetration of construction services in other ASEAN member countries can be used as an arena for promotion of national construction and as a benchmark for competitiveness for local construction service providers, as well as to gain experience that will later be needed in facing competition with foreign service providers in the national construction market. Trade liberalization in the service sector can run well if it is supported by competitive domestic regulations.

Various restrictions on access to the provision of services from abroad to the national market cause high market barriers. In improving the competence of the Indonesian workforce, based on literature review and observation, therefore several main obstacles to the achievement of a competent and certified workforce identified, including the following [3],[8],[2],[9]: ? Qualification procedures.

Qualification procedures are procedural requirements that an individual must meet to

demonstrate that he or she has met the qualification requirements to provide a service.
? Qualification requirements Qualification requirements are substantive requirements related to the competence of an individual to provide a service, which must be proven through examinations, work experience requirements, or language requirements.

? Financial problems when some workers participate in the training, wages from their place of origin are stopped during the training. ? Awareness of the importance of having legal and academic competence. ? Lack of international standards and certificates of expertise. From the description above, the obstacles that become the main issue in improving the competence of the Indonesia workforce must be overcome by formulating approaches that can overcome problems related to the competence of the workforce in the face of liberalization. 3.

Approaches to Overcome the Problems of Labor Competence in Facing Liberalization National construction service providers are expected to take advantage of liberalization opportunities through the development of international construction market penetration. It aims to expand employment opportunities for Indonesian construction workers. In addition, penetration of construction services in other ASEAN member countries can be used as an arena for promotion of national construction as well as a benchmark for competitiveness for local construction service providers, and to gain experience that will later be needed in facing competition with foreign service providers in the national construction market.

However, there are problems related to the competence of the workforce; the first thing to do is to ensure support from the government in helping to improve the competence of the construction workforce. Support and commitment from the government should be seen from realistic, legal, and academic aspects to improve the ability and quality of the national construction workforce [10],[11],[12].

The Construction Services Development Agency (LPJK), both at the national and regional levels, also plays an important role in the development of the construction workforce through the implementation of the accreditation functions of professional associations and educational and training institutions, as well as labor registration [13]. The competence of construction workers is academically carried out after they have gone through education for a certain period, both formally and non-formally.

Formal education is generally held by universities, polytechnics, vocational high schools, and others, while non-formal education can be done through job training programs. Given the large number of construction workers in Indonesia, while the World Building Congress 2022 IOP Conf. Series: Earth and Environmental Science 1101 (2022) 032008

IOP Publishing doi:10.1088/1755-1315/1101/3/032008 4 number of formal education providers is very limited, non-formal education in the form of job training is expected to play a larger role.

The government, through the Ministry of Public Works and the Ministry of Manpower, needs to encourage and help facilitate training that can improve the competence of workers both on a national and international scale such as job training and English course. In job training, all activities must provide, improve and develop skills, productivity, discipline, work attitudes, international language and work ethic of the workforce at certain skill levels based on certain job requirements, the implementation of which prioritizes practice over theory [14].

In this job training, a job training program should be provided, which is a written statement containing the objectives and ways to achieve the goals systematically arranged according to the vocational field, level and or level, training standards, methods, participants, instructors, facilities, financing, certification. and work license.

The method used in job training must be provided and able to present knowledge, skills, and work attitudes to participants by the instructor using available facilities [15]. The second effort is improving the quality of competence and professionalism from the legal aspect through adjustment of current regulation and a quality assurance system in the form of certification [16], [17].

The purpose of certification is to provide objective information to service users that the competence of the workforce concerned meets the competency standards set for their classification and qualifications. Therefore, all construction workers, both those working at home and abroad, should be obliged to have a certificate. All construction industry workers must have a labor certificate issued by a professional association or training institution and then must register at the LPJK.

Based on Law Number 2 of 2017 on Construction Services, every construction building must be built by a company that meets the requirements, one of which is competent workforce/techniques which are authentically proven through a certificate of engineering personnel [7]. Furthermore, in Government Regulation No. 28 of 2000 concerning the Business and Role of the Construction Service Society, it is stated that construction workers must take work skills certification or work expertise certification carried out by the Construction Services Development Agency (LPJK).

Another thing that needs to be done is to improve the capability and quality of the construction workforce who can take part in national and international roles. With a

strategy in the form of ensuring support and commitment from the government regarding readiness to face liberalization from legal and academic aspects, the government's readiness also needs to be realized in **the establishment of the National Professional Certification Agency (BNSP)** which is tasked with implementing work competency test certification for Indonesian workers. Operated in 2005, its implementation is still considered less than optimal.

This is caused by a lack of socialization and interest from the community concerned. This agency will also provide final-level examinations for the training process carried out by training centers. For example, at the welder's training center, BNSP will test at the final level and issue a certificate for welders.

The certificate issued is expected to apply at least in the ASEAN region. With this certificate, if the qualifications for a field of workers already exist, user can refuse foreign workers who will enter the field. Thus, Indonesian workers will be protected even though the Indonesian labor market is also open to **the entry of foreign** workers.

Competency qualifications will be opened in various fields and there will be no high labor or low labor. Even though there is liberalization, Indonesia workforces are ready to face it. Likewise, other countries can also refuse foreign workers if they already have workers who have the certification of these professional qualifications.

Work competency standards are very important for the development of professional and expert staff.. Therefore, there is a need for standardization and professional certification, especially work competency certification and **Indonesian national work competency** standards, which must refer to national and international work competency standards.

In this competency test, several test methods are applied to prove that a construction worker has competence by **the Indonesian National Work Competency Standards (SKKNI)**, including practice tests, interview tests, and written tests. In recent years, in line with the policy of **accelerating the certification of construction** workers, a competency test method called observation has been pioneered.

Observation is a method of collecting data/evidence of competence through observation/review at the location where construction workers work. What needs attention is that the observation method has different criteria **World Building Congress 2022 IOP Conf. Series: Earth and Environmental Science 1101 (2022) 032008 IOP Publishing doi:10.1088/1755-1315/1101/3/032008** 5 for conditions from other test methods.

Perfect conditions are needed for carrying out competency tests with the observation method, namely when construction workers carry out their work at the project site, for example, projects carried out by business entities or community-based infrastructure projects. In these conditions, assessors can more easily assess and prove competence, because what is being observed is people who are working, so that the data on participants' abilities are more accurate.

The government's commitment also needs to be carried out by reviewing the rules that are felt to be confusing for construction workers related to training and certification, such as which institution organizes it, or what is the mechanism. It is necessary to clarify the training or certification that must be passed by a workforce of many variations.

Likewise, there is a need for a more intense national socialization in the provision of training and labor certification [18],[19]. The success of a competent construction workforce cannot be achieved solely by relying on the government or the construction workforce itself, but the private sector or stakeholders who **are involved in the** construction sector, such as contractors and material suppliers, are also expected to play a large role and improve their competence. For example, some cement producers commit to significantly **improving the competence of** craftsmen.

One of the cement producers cooperates with the university in carrying out training to improve competence labor. Likewise for the contractor, training can be carried out by conducting a material test involving prospective construction workers who will carry out a job that is considered quite complex, and the test will have several advantages, for example (1) it will increase competence in artisans, (2) find out whether a method can be carried out by existing labor and equipment.

The private sector should permit their workers to join courses or training to obtain their legal and academic competence without deducting their salaries. 4. Conclusion and Further Research From the description of the competence of workers in the service sector of **the Indonesian construction industry** in the face liberalization era, **it can be concluded** as follows: ? Competence of construction workers must be demonstrated in legality, and academically ? Construction workers must be competent and certified.

? **Improving the competence of** construction workers can be done by conducting many pieces of training such as **giving affordable and accessible training** and education and English course to the construction workforce. ? Apart from the government, the role of all stakeholders in the construction sector is very important. It is expected that this will increase **the competence of the construction workforce** ? To stimulate the workforce to

have competence, it is necessary to relook at existing legislation, to provide more guidance on improving workforce competency, and to develop an incentive system such as different income or getting remaining operating results, if the contractor earns a higher profit due to very good workforce performance.

For further research, the recommendation can be proposed, namely investigating the necessary actions and strategies for bridging the perceived gap between the education and practice of construction management and formulating clear strategies for applying these actions. It recommends that the research strategy be implemented over an estimated period by mixed methodology, including further in-depth interviews with industry, academia, and graduates. Case study analysis of selected construction management courses is also recommended.

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