

**Human Resources Development Through Scholarship: A Case Study of Ministry of  
Public Works and Housing of Indonesia**

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**ABSTRACT**

The objective of this research was to evaluate human resources development through scholarship in the Ministry of Public Works and Housing of Indonesia (MPWHI). The study investigated the planning, implementation, and output of the MPWHI scholarship program by method of document analysis, and personal interviews with employees directly involved in the scholarship program at MPWHI. The program evaluation model known as 'Context, Input, Process, and Product' (CIPP) was employed to analyze and evaluate the scholarship program. The 50 participants of the study included policy makers, scholarship students, and other stakeholders. Results indicated that while the purpose of the program has been outlined in formal documentation, it is not currently well implemented. Furthermore, the national education regulation (UU No. 20/2003), states that the curriculum of official education should be designed as a professional skills program, while the study concluded that in practice, it focuses on knowledge, rather than skills. Also, it appeared challenging to assess graduates' competencies and professionalism in the workforce. Improvements in planning, implementing, monitoring and evaluation of scholarship programs would be beneficial. Despite these shortcomings, the results showed that the scholarship program at MPWHI has contributed significantly to enhancing the quality and competencies of human resources. This research is intended to contribute to the improvement of scholarship programs in government organizations.

**Keywords:** evaluation program, CIPP Model, scholarship, government organization

**Introduction**

The scholarship program is important to the development of human resources in many government organizations. Scholarships aim to increase the Human Development Index (HDI) (Ngasuko, 2015). In 2018, Indonesia's HDI of live expectancy, literacy, education and standard of living, was lower than Singapore, Malaysia, Thailand and The Philippines. The Indonesian government has implemented legislation to improve the quality of human resources, including regulating the use of scholarship programs. Scholarship programs are allocated funding; however, the effectiveness of these programs must be evaluated in order to improve their effectiveness.

The Ministry of Public Works and Housing of Indonesia (MPWHI) is one government organization that provides a scholarship program to improve the quality of its human resources. The scholarship consists of financial aid for employees to further their education. The limited of study of program evaluation in the MPWHI need to be explored, to provide the comprehensive information of the program. A previous study evaluated the MPWHI scholarship program over a period of five years, from 2010 to 2015 (LAEPKV, 2015). The results concluded that the program has a positive impact on students, and the organization (LAEPKV, 2015). However, the study had a limited focus, and did not elaborate on the competencies obtained by those who undertook the scholarship program. Therefore, a more comprehensive evaluation of the scholarship program was required.

Since 1952, the MPWHI, has awarded scholarships to employees. The scholarship namely as official education and vocational program, designed to staff of the MPWHI and public works of provincial or district employees. However, the program has encountered multiple issues in recent years. First, government regulation stipulates that scholarships are intended as professional education, however in practice, employees receive academic education relevant to work practices. Professional education aims to provide student to undertake special profession (UU NO. 14/2010). Second, the monitoring and evaluation of the students' study progress has been reported as ineffective. Third, the benefits of the program remain unknown, as this aspect

has not been explored in detail. No specific actions were undertaken by the MPWHI to improve the scholarship program. Therefore, this study focused on evaluation of the program, to highlight the issues, and to investigate the use of the CIPP Model of evaluation.

## Research Methodology

This research used a qualitative case study as the method of inquiry. A case study is an in-depth exploration of a 'bounded system' (e.g. an activity, event, process, or group) based on extensive data collection (Creswell, 1998). A bounded system approach acknowledges that the case study is separated for research, in terms of time, place, and physical boundaries. Creswell (2009) noted that a case study based on the qualitative method, must select a specific location, and include documents, visual materials and participants. Furthermore, the study used purposeful sampling means selected information who understood the problems of research (Cresswell, 2017). This study selected a group of participants who entered the MPWHI scholarship program in 2014. Output of research was evaluation of the whole of program components using CIPP Model: context, input, process and product. Context - model evaluated background, vision and mission of program's objectives. Input - model analysis human resources planning and objective of program. Process – model to review implementation and product - model measuring the results of study. Participants included thirty (30) Master's degree students, and 1 Diploma student. The data was analyzed by identifying common themes in data collection, interviews, and related documents. The data was presented through the use of detailed descriptions, and quotes from data collection forms.

## Results and discussion

The study results many issues, but this paper focus 3 key areas: human resources planning, legislation and policy, and competencies.

### Human Resources Planning

The MPWHI scholarship program aims to develop personnel to become professional, effective and efficient. The program is conducted through collaboration with selected domestic universities. Some domestic universities have a partnership with international institutions through a double degree program. The program is designed for employees to undertake either a master's program, or vocational programs, such as a diploma, or high diploma. The study revealed that the scholarship program was lacking in quantitative targets, such as identifying the development needs of professional personnel, and the required competencies. The Head of Staff described the program as follows:

*"Pre 2016, the program was implemented sporadically, with no comprehensive objectives. In 2016 tailor-made approaches were implemented, which continued until 2019. Now the program has been regulated by Government legislation (Interview of Official, 18 April 2018)*

Since 2019, the study program has included the prerequisite that in order to be eligible for the scholarship program, employees must have an adequate educational background. This study focused on students who commenced the scholarship program in 2014, prior to these requirements. Aramatunga (2012) noted that the primary function of human resources planning is that the organization has sufficient employees to complete all work required, to meet the organization's objectives. Furthermore, Anya et.al (2017) stated that human resources planning has a strong impact on organizational performance, by forecasting and managing future requirements for human resources. Cakar (2012) stated that effective human resource planning meets the organizations' need for a quality workforce, and that an effective human resources plan reduces labor costs substantially, by maintaining a balance between the demand for, and supply of, human resources. Anticipating human resources requirements encompasses the estimation of the number and type of human resources required, at different levels of an organization, in different departments (Pradeesh, 2011). Ghazala & Habib (2012) concluded that the process of human resource planning should ensure that an organization's employees have the required skills and competencies for it to

succeed. Therefore, organizations should undertake human resources planning to meet organizational needs.

## **Legislation and Policy**

The legislation for scholarship education states that it should be designed as professional education, and can be conducted internally or externally. The following legislation and policies relate to the scholarship program, and were reviewed as part of this study:

- Constitution Act No. 20/2003 relates to the National Educational System
- Government Regulation No.14/2010 regarding Official Education
- Government Regulation No.12/2012 regarding Higher Education.
- MPWHI Policy No.13/PRT/M 2014 regarding Apparatus Developments

Higher education programs beyond Bachelor or Diploma IV level, are intended to enhance the capacity and skills of government personnel. However, this study revealed that the program's curriculum was implemented by the MPWHI as academic education, modified to suit work practices. As the Chief of Study Program, and the Chief of Educational National Standard stated:

*"The curriculum is designed as academic education, however the content is adjusted to suit the needs of the Ministry of Public Works" (Interview with the Chief of Study Program 6, 2 May 2019).*

*" In the case of professional education, students undertake a certification test, however for official education such as a master's program, students undertake a competency test (Interview with the Chief of Educational National Standard, 24 April 2019).*

Therefore, the implementation of the scholarship curriculum appears to be modified to suit the specific needs of the organization, and may not necessarily follow the certification requirements of professional education. Moreover, the program suggests to have a differentiating factor within its curriculum such as a basic value and characters of apparatus (Analysis and Evaluation Center of National Laws, 2017). Wheelahan & Moodie, (2011), stated that, "the balance of theoretical knowledge and the practices of work is necessary". However, they also stressed that if this balance leans too far to either side, the program will fail. Furthermore, Barnett (2006) noted that the current Vocational and Training program focuses only on practice of works, and as a result does not address the complexities of work environments. Schon, (2018) argued that professional education should continue for life, with learning by doing and problem-solving. Support from the government is important to enhance the learning process of professional and vocational education. In the USA for example, the Perkins Act, has directed \$1.3 billion in federal funding towards career and technical education programs (Peckham, 2006).

## **Competencies**

Technical competencies relate to functions, processes, and roles within an organization, and relate to the knowledge and skill required for the successful performance of a specific job or task. The MPWHI introduced a total of 20 studies programs in 2014. An additional 3 programs were added in 2018 (See Table 1).

This research concluded that each study program attained a satisfactory level of competence. The latter means reach of the level fourth or fifth level of the whole grades. The fourth level means able to evaluate the practices, making solutions and recommend better implementation. However, MPWHI's Letter No. 02/SE/M/2019 stated that the "grand design" of competencies achieved through study programs needed to be raised in 2019. The document stated that 34 programs of study at master or doctoral levels are required by MPWHI. Moreover, due to succeed of study programs develop the target competencies within this research. This study hypothesized that the scholarship program contributed at least 23 of 34 of the required competencies. Therefore, 68 % of required competencies are

supported by the program. Table 2 outlines the technical competencies obtained as result of the scholarship program:

**Table 1. List of Studies Programs in 2014 -2018**

No	Master Of	University
1	Water Resources	Univ. Syiah Kuala
2	Transportation	Univ. Syiah Kuala
3	Civil Engineering	Univ. Andalas
4	Water Resources Management	Institut Teknologi Bandung
5	Civil Engineering	Institut Teknologi Bandung
6	Road Engineering System	Institut Teknologi Bandung
7	Water Infrastructure Management	Institut Teknologi Bandung
8	Developments Studies	Institut Teknologi Bandung
9	Project Construction Management	Univ. Katolik Parahyangan
10	Law	Univ. Katolik Parahyangan
11	Accountancy	Univ. Padjadjaran
12	Urban Development	Univ. Diponegoro
13	Management Infrastructure Engineering	Univ. Diponegoro
14	Maintenance and Infrastructure Engine	Univ. Sebelas Maret
15	Technical Management of Disaster	Univ. Gadjah Mada
16	Facilities and Material Technology	Univ. Gadjah Mada
17	System and Transportation Technic	Univ. Gadjah Mada
18	Infrastructure Asset Management	Institut Teknologi Sepuluh November
19	Water Resources	Univ. Brawijaya
20	Diploma 3, Diploma 4	Politeknik Negeri Kupang
21	Geology	Univ. Gadjah Mada
22	Hydro informatica	Institut Teknologi Sepuluh November
23	Construction Safety Engineering	Univ. Hasanuddin

**Table 2. List of Technical Competencies**

Master's Program	University	Competencies	Level of Ability
Accountancy	Universitas Padjadjaran	Finance Report	Evaluate financial reports.
Infrastructure Management	Universitas Diponegoro	Strategic Decision Making	Anticipate the impact of policy and identify mitigation measures.
System and Transportation Engineering	Universitas Gadjah Mada	Planning in the transportation system. Technical Planning of Roads and Bridges. Construction (Roads & Bridges), Maintenance (Roads & Bridges), Supervision (Roads & Bridges).	Evaluate and make recommendations for methods, materials, and equipment used in the design, construction, and maintenance of roads and bridges. Design skills in planning a transportation system
Civil Engineering	Institute Teknologi Bandung (ITB)	Technical Planning of Roads and Bridges, Construction (Roads & Bridges), Maintenance (Roads	Evaluate methods, materials, and equipment used in the design, construction, and maintenance.



			& Bridges), Supervision (Roads & Bridges).	
Management Engineering Disaster	of of	Universitas Gadjah Mada	Overcome disaster	Evaluate and recommend disaster management programs.
Management Construction Project	of	Universitas Katolik Parahyangan	Construction Management	Evaluate and resolve construction issues.
Management Infrastructure Asset	of	Institute Teknologi Sepuluh November.	Asset Management	Evaluating and resolve asset management issues.

It appears that each study program succeeded in developing competencies to a satisfactory level. A study undertaken by Wijaya & Irianto (2018), indicated that technical and strategic competence of personnel positively affected a firm's performance with moderate ties, however managerial competence negatively affected a firm's performance with weak ties. Firms that incorporate technical competence into their implementation model, achieve superior business performance (Madapusi & Ortiz, 2014). However, Kaspersma, Alaerts, & Slinger (2012) argued that even if a particular professional has a "technical" orientation, they may have a strong interest in obtaining other competencies, specifically learning meta competence and aggregate competence for management.

Juhdi, Pa'wan, & Hansaram (2015) emphasized that employers attribute the highest value on employees who were customer-service oriented. Three major competencies were identified: results-orientation, interpersonal competence, and technical competence. Universities have recognized the importance of becoming more adaptable to industry needs, while increasing the focus on competencies for innovation (Di Gropello, Kruse, & Tandon, 2011).

## Conclusion

The scholarship program for official and vocational education within the MPWHI, is designed to improve the quality of personnel in delivering public services, through collaboration with selected domestic universities. However, this research found that the human resources planning is not define comprehensively includes the professional staff needed and its competencies objective. Moreover, according to legislation and policy the program as scholarship or official education should be designed as professional education, however, its curriculum is modified as academic education and design to suit the requirements of the workplace. Fortunately, the results of the study demonstrate that satisfactory improvements especially in technical competencies were achieved by the program. As a result, the study suggested that the program could be improved by undertaking comprehensive human resources planning and promote to change government regulation that academic and or applied master education are alternatives within official education.

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