

Research Article**Human Resources Development via Higher Education Scholarships: A Case Study of a Ministry of Public Works and Housing Scholarship Program ***Abdullatif SETIABUDI ¹  Muchlis. R. LUDDIN ²  Yuli RAHMAWATI ³ **Abstract**

This study aims to assess human resources development through a scholarship program in the Indonesian Ministry of Public Works and Housing (IMPWH). The study used document analysis methodology and personal interviews to identify the circumstances and objectives used by IMPWH in implementing the scholarship program. A program evaluation model, known as 'Context, Input, Process, and Product' (CIPP), was used alongside case study methodology to elaborate on and assess the scholarship program. Fifty participants, including employees, alumnus, lecturers and policymakers were involved in the study. The results showed that the scholarship program at MPWHI contributed significantly to enhancing the quality and competencies of human resources despite some shortcomings. Whilst the implementation of monitoring and evaluating the program was effective, the process of digital monitoring was insufficient and needs to be reconsidered for future iterations. This research has promoted a model for Human Resources Development (HRD) that will contribute to the improvement of scholarship programs used in government organizations.

Keywords: Evaluation, program, CIPP model, scholarship, government organization

1. INTRODUCTION

Human resource development is a significant undertaking in government organizations. A scholarship program is one method used to develop human resources. According to Ngasuko (2015), a scholarship aims to improve the Human Development Index (HDI in terms of life expectancy, literacy, education and standard of living). In 2018, Indonesia's HDI was less than Singapore, Malaysia, Thailand and The Philippines. In response, the Indonesian government applied regulations to enhance the quality of human resources, including implementing a rule for the use of a scholarship scheme. The IMPWH is public organization that provides a scholarship program to enhance the quality of its human resources. The scholarship consists of financial support for employees to continue their education.

Education is one of the most important factors in developing the professional skills necessary for employment. Education creates the kind of workforce demanded by employers who want employees with higher education qualifications (CS & HISC, 2012). Scholarship programs that assist employees in the continuing study can be one way of supporting workers in achieving their educational goals (Pathman et al, 2000). According to (Foreman, Perry, & Wheeler, 2015) providing employees with the opportunity to pursue higher education related to a higher profit for the organization. This study will investigate the impact of higher education scholarships on human resources development. Based on (Ganem & Manasse, 2011), scholarships from an employee's institution impacts positively on student success.

Received Date: 14/07/2020

Accepted Date: 09/08/2020

Publication Language: English

To cite this article: Setiabudi, A., Luddin, R. M., & Rahmawati, Y. (2020). Human resources development via higher education scholarships: a case study of a ministry of public works and housing scholarship program. *International e-Journal of Educational Studies (IEJES)*, 4 (8), 209-223. DOI: 10.31458/iejes.769490

¹ PhD Student., Universitas Negeri Jakarta, Indonesia,

^{2,3} Lecturer, Universitas Negeri Jakarta, Indonesia,

Corresponding Author e-mail address: yrahmawati@unj.ac.id

Since 1952, the IMPWH has rewarded scholarships to its staff. The scholarship considered as an official education and vocational program, was provided to provincial or district employees of the IMPWH and public works. An assessment of the scholarship program was undertaken from 2010 to 2015 (Reinhard & Singh, 2011) and the subsequent review reported that the program was beneficial for students and the organization. However, the focus of the study was limited and did not elaborate on the competencies achieved by those in the program. Therefore, a broader evaluation of the program was needed. In recent years, the program has experienced many issues. First, the students did not develop as professional practitioners as intended by the design of the scholarships. This is the reason why the scholarship failed to reach its aim to develop students' professionalism (Republic of Indonesia, Government Regulation, 2010). Second, the monitoring and evaluation of students' study progress is considered ineffective because sanction have not been applied to students' academic report. Third, the impact of the program overall remains unknown as it has not been investigated in detail. No specific measures have been executed by the IMPWH to enhance the program. Therefore, this research aims to focus on these issues to explore the scholarship program by using the CIPP Model of evaluation.

The CIPP model was used in this study to identify the effectiveness of the scholarships in helping employees achieve future goals. According to (Stufflebeam, 2000), his model can give evaluation on the programs not only in education field, but also on various field such as the society, military and etc that can be used by the ministry and curriculum organizer. That is why this study used this model to evaluate the scholarship's program. The evaluation on this program is used for validating the accountability of the input which is the scholarship with the human resources' development as the outcome (Zhang, et al. 2011). According to (Stufflebeam, 2000) this model was used to assess the quality of context, input, process, and product in school. Therefore, this research can identify the progress of the scholarship programs that organized by IMPWH. CIPP model can be applied in many fields by setting the criteria based on the objective of the university and study field (Shin, 2019). This study identified a scholarship program in Indonesian Ministry of Public Works and Housing (IMPWH) based on the government regulation to improve the employees' quality.

The study identified Indonesian Employees known as Public Servants and used the Ministerial Degree of Empowerment of State Apparatus and Bureaucracy Reformation No. 38/2017 as the Standard of Job Competencies. Regarding on this, there are three groups of competencies: the managerial, socio-cultural and technical competency. Indonesian Constitution Act (2003) said that the success of an organization is based on its human resource planning process where the employees must have the appropriate skills and competencies. This is related with Kepmendiknas (2002) that define a competency is a series of intelligent actions with responsibility as the requirement in doing something at society. According to the Ministerial Decree of Empowerment of State Apparatus and Bureaucracy Reformation No. 38/2017, the managerial competency, socio-cultural competency and technical competency is defined as follows:

- a. Managerial competency is knowledge, skills and attitude which could be observed, measured and developed for leading or managing the organization.
- b. Socio-cultural competency is knowledge, skills and attitude/behaviour that can be observed, measured and developed, related interaction with the plural society.
- c. Technical competency as knowledge, skills and attitude/behaviour that could be watched, measured and develop primarily related to technical job and the primary function of the organization (Sistim Administrasi Negara, 2003) Furthermore, the group of managerial competency consists of eight competencies such as integrity, teamwork, communication, result orientation, public service, development of individual and other people, change management, and decision making. The socio-cultural competency consists of one competency that can integrate the nation. The technical competency varies and depends on the needs of each organization. In this study, the technical

competency adapts the IMPWH's Competency Dictionary which describes the competencies as the implementation of the knowledge in job.

Wijaya and Irianto (2018) indicated that technical and strategic competence of personnel significantly affected a firm's performance with moderate ties. On the other hand, the managerial competence affected a firm's performance negatively with weak ties. The organizations which apply technical competence into their implementation model, achieve higher business performance (Madapusi & Ortiz, 2014). However, Kaspersma, Alaerts, and Slinger (2012) point out that even if a specific professional has a "technical" orientation, they may have a keen interest in obtaining other competencies, specifically learning on meta competence and aggregate competence for management. Juhdi, Pa'wan, and Hansaram (2015) suggested that employers attribute the highest value on employees who were customer-service oriented. According to this author, three primary competencies were notified, such as results-orientation, interpersonal competence, and technical competence. Ngasuko (2015) concluded that the middle of public managers needed to devotion to laws and regulation, have multi stake-holders collaboration, mastering in the technical competencies such as technology management, Human Resources Management, and financial management.

In 2019 the "grand design" of formal education emerged within the IMPWH by the Ministerial Letter No. 02/SE/M/2019 (Kementrian PUPR, 2019). This policy arranged the implementation of formal education requirement includes the prerequisite of the master and doctoral programs. There are 34 programs of study needed by the organization to elevate the performance of the institution. According to Mondy (2008), the competency demand is a part of the human resources forecasting includes the skills needed and the supply of the resources, internally or externally. Moreover, the formal education implemented through the scholarship program from 2014 up to 2018. The amount of 22 programs studies or 65 % of the target were executed. They are increasing the capability of competency within the organization, as mentioned by Noe et al. (2010) These competencies are the effort of the institution to increase the competitive capability of their human resources through HR development within the changing environment. The achievement of competencies as the sum of 65 % from the target, was relatively appropriate. Mondy (2008) and Noe et al. (2010) said that this achievement could be an anticipation of the human resources requirement—also, an effort to enhancing the competitiveness of the organization. Besides, the achievement of competencies on the average reached the forth of the fifth level, especially the technical competencies give the perception or hypothesis that the alumnus of the program has a satisfying result.

Furthermore, the area of studies program applied since 2014 up to 2018 that listed in Table 1. Figure 1 showed the percentage of the area of study. Also, Figure 2 the realization of each area of study.

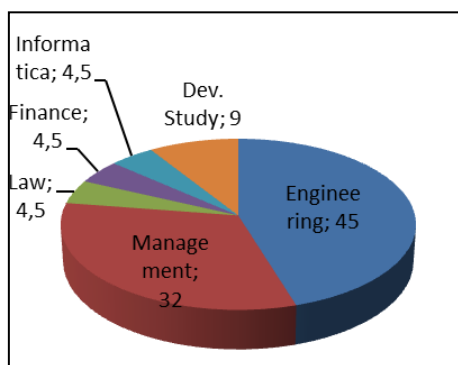


Figure 1. Percentage area of study implemented

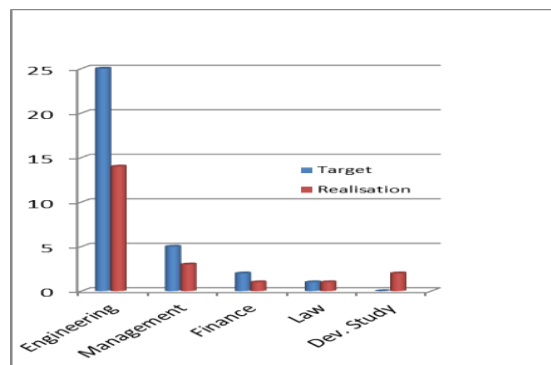


Figure 2. Realization of area of study

Table 1. Area of study (2014-2018)

Area of Study	No	Master Program
Engineering	1	Water Resources (2)
	2	Transportation
	3	Civil Engineering
	4	Road Engineering System
	5	Maintenance & Infrastructure
	6	Facilities & Material Tech.
	7	System & Transportation Technic
	8	Geology
	9	Construction Safety Engineering
Management	10	Water Resources Management
	11	Water Infrastructure Mgt.
	12	Project Construction Mgt.
	13	Management Infrastructure Eng.
	14	Technical Mgt. of Disaster
	15	Infrastructure Asset Mgt.
	16	Project Construction Mgt.
Law	17	Law (Engineering related)
Finance	18	Accountancy (Finance Report)
Informatica	19	Hydro Informatica
Development Study	20	Development study
	21	Urban study

Within this table 1, there are 22 programs implemented from 2014 until 2018. Diploma programs were not calculated since the ministerial policy on the program focuses only on master and doctoral programs.

The universities that applied the program are distributed to Java Island, Sumatera Island, and Sulawesi Island. In Java, there are 8 universities supported by 16 study programs. In Sumatera, 2 universities have 3 study programs, and in Sulawesi, one university has one study program. The universities were selected because of their quality and the location so the students can approach the MPWHI offices easily. These offices can be found the most in Java Island, Sumatera Island and Sulawesi Island respectively. These universities were accredited in national and international scale that shown in Table 2.

212

Table 2. The National & International ranking

No	University	The National Accreditation of Higher Edu.	Asian University Ranking	Qs World Class
1	ITB	A (SK 2017)	73	331
2	UGM	A (SK 2017)	74	391
3	UNPAD	A (SK 2018)	225	651-700
4	ITS	A (SK 2018)	229	≠ 801-1000
5	UNPAR	A (SK 2017)	451-500	No data
6	UNDIP	A (SK 2018)	271-280	≠ 801-1000
7	UB	A (SK 2018)	301-350	≠ 801-1000
8	UNS	A (SK 2018)	401-450	No data
9	UNHAS	A (SK 2017)	401-450	No data
10	UNAND	A (SK 2018)	No data	No data
11	UNSYIAH	A (SK 2015)	No data	No data

Table 2 presents that all of the universities involved in the program have an A accreditation within the national' higher education level. However, in the Asian University Ranking, the two of the top national university (ITB & UGM) include in the 100th rank. The others have the position less than

450th. However, the two of top national universities entered the rank of 400th at the global level, but others were in the 1000th. The data showed that in general, the universities which applied the program have a good rank in the Asian region or the global level. Nevertheless, some universities could not be assessed due to not available data. The writer assumes that universities have not any reputation both in the region and the global level. This study used the data from the universities on table 2 which applied the scholarship.

2. METHOD

2.1. Methodology

This study used a qualitative case study method of research. A case study is an in-depth investigation of a “bounded system” (e.g. an activity, event, process, or group) based on comprehensive data collection (Creswell, 2009). Creswell (2009) noted that a case study based on qualitative research methods, must select a particular location and include records, visual objects and participants.

2.2. Participants

This study used purposive sampling method which select the data was chosen because it related with the research problem (Creswell, 2009). This study involved a group of students who participated in the IMPWH scholarship program in 2014. Participants involved in this study about 50 persons include 30 postgraduate degree students, and 8 graduate diploma students and 12 lecturers and officials.

2.3. Data Collect and Analysis

Result of the study was the evaluation of the entire program components using CIPP Model: context, input, process and product. Context - the model assesses the background, vision and mission of the program’s objectives. Input -the model evaluates human resources planning and objective of the project. Process-model to analysis implementation of the program; and product-model assess the results of the study. The data was elaborated by knowing general themes in data collection, interviews, and related documents. The data was delivered through the use of detailed illustrations, and quotes from data accumulation forms.

3. FINDINGS

Using the CIPP model of evaluation, the study found many issues. The findings of this paper focused on six key areas: history and background, human resources planning, legislation and policy, adequacy of scholarship, and competencies. It recommended a model of scholarship as an approach for employees’ development.

3.1. History and Program Objectives

The program was initiated in 1952 as a reaction to the Dutch’s exodus after the Indonesia anniversary at 1945. The program aims to develop an employee to become a professional or technical staff. Since that time, formal education conducted by its owned or by collaboration with local universities. No specific vision or mission formulated during the development of the program—moreover, the numbers of IMPWH declined since 2005 (Badan Pengembangan Sumber Daya Manusia, 2015). Data showed that the total of employees in 2005 was 27.110 people, 2010 was 24.077 people) and 2015 was 21.472 people. There is no detail target of human resource development that appears before the program commenced in 2014. This practice is not compatible with the concept of human resources management. Paradeesh (2011) suggests that anticipating human resources needs to cover the estimation of the total and type of human resources required, at different levels of an organization, in a different unit. Ghazala & Habib (2012) resumed that the process of human resource planning ensured employees to have the needed skills and competencies for the organization to work out.

Moreover, Suryavanshi & Iszar (2017) argue that the business of HR planning is not only comparing present human resources to future needs but also to identify skill and competency gaps. Finally, the program was designed to provide professional staff and technical employees who have appropriate skills and competencies. The development of objective that covers organization needs to include the numbers and specific competencies that are not described in the program. This practice was not supported by many authors (Paradeesh, 2011; Ghazala & Habib, 2012; Suryavashi & Iszar, 2017).

3.2. Human Resources Planning

The study revealed that there was no comprehensive HR planning before the program is running. This program was designed based on the Ministerial Policy No. 13/PRT/M /2014. According to this policy, the program aims to enhance the capacity and skills of employees in delivering public jobs. Another letter of HRM Chief explains that the program objective is to expand the role of human resources in the public works and housing area (BPSDM, 2015). However, these objectives were not explained in quantitative measured. According to Price (2010), the lack of human resources data was a barrier to make an effective HR planning.

Moreover, there is no specific HR planning that prepared for the program. The project designed alike as a routine activity. One official explained:

“No grand design for the professional requirement as fundamental for formal education and vocational planning. Program is only as a regular activity and more focus on budget absorption”
(Interview with HRD Official, 12 April 2019).

The interview confirmed that no specific requirement of HR planning in terms of number and the program perceived as routine activities to spend budget. However, Mondy (2008) suggests a design with a specific target in HR planning. In 2016, the tailor-made approach of formal education applied meaning that program should adjust to the organization need.

“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 2019)

This interview states that in 2016, a tailor-made approach was used until 2019, and the program should match with work practices. Furthermore, Paradeesh (2011) pointed out that the strategic objective is needed in HR planning. According to Dessler (2011), this strategy is important to conduct the need analysis toward organization, employee, and task for effective development. The work from Amaratunga, et al. (2012) noted that the main function of HR planning is that the organization has sufficient staff to complete all work needed to achieve the organization’s targets. Furthermore, Human Resources Development in Indonesia (2015) stated that HR planning has a significant benefit on organizational capability by anticipating and control future demands for human resources. The work from Cakar, Bititcj, and Macbryde (2012) stated that effective HR planning meets the organizations’ requirements for qualified employees and minimize the expenses substantially, by managing stability between the demand for, and supply of, employees. The HR planning within the program applied without comprehensive planning in terms of the professional, technical staff, and competencies required. This practices not compatible with concept of many writer such as (BPSDM, 2008; Amaratunga, et al., 2012; Cakar, Bititcj, and Macbryde, 2012; Dessler, 2011; Mondy, 2008; Paradeesh, 2011). Therefore, organizations should undertake HR planning comprehensively to achieve organizational requirements.

3.3. Legislation and Policy

According to Constitution Act No. 20/2003, regarding the National Education System and Government Regulation No. 14/2010 relates to Official Education, and IMPWH Policy No.13/PRT/M 2014 regarding Apparatus Developments, the program should be managed by professional education.

However, it applied in academic education but added with the related content to the job requirement. The one of Chief Study explained:

“The curriculum content is adjusted to suit the needs of the Ministry of Public Works.”

(Interview with the Chief of Study Program 6, 2 May 2019)

This interview explains that the curriculum of the program was designed not only as an academic approach but also added with organization need. Another statement from the former Chief of Study stressed this problem:

“The curriculum designed to meet the academic requirement. After that, it develops to fill the IMPWH’ needs, such as road engineering and the transport system”.

(Interview with the former Chief of Study, 2 -5-2019).

The interview confirmed that the content of program was already adjusted to suit the job requirements. In other words, the application of the scholarship curriculum was modified from professional education became the academic education that suits the specific requirement of the organization.

3.4. Curriculum Development

While professional education changed to academic approach, therefore the involvement of profession association replaced by the role of the practitioner as a lecturer. The issue of the practitioner is stated below:

“The practitioner from Ministerial of Public Work and Housing, Government of West Java and the Taxation Directorate, are invited in Curriculum design”

(Interview with the Chief Study of MAKSI-UNPAD, 26-4- '19).

This interview explains that practitioner was also involved in designing the curriculum. The practitioners come from an internal and external organization. Although this is not a general phenomenon, one study program invited the professional association in developing curriculum. One of Chief Study described as bellow:

“The Ministerial of Public Works and Ministerial of Transportation as Government Institution and Transport Association are invited to improve the curriculum”

(Interview the former Chief of Study of MSTT-UGM, 2 -5- 2019).

This interview states that, in some cases, the professional association involved in curriculum design. The Ministerial Public Works Degree No.13/PRT/M/2014 mentioned that curriculum should fulfil the work requirement in the Ministerial Public Work and Housing. However, students suggest this matter as follows:

“The curriculum should suit with the works, not only the theory.”

(Student Reflective Journal 26, MAKSI-UNPAD,10-4- '19).

This statement stressed that the content of the curriculum should be more applicable than theoretical. Also, another student stated that the Subject should be related to the work requirements:

“Subject should focus more on work practices.”

(Student Reflective Journal 4, MAKSI-UNPAD,10-4- '19).

This statement suggests that the Subject should be more related to work practices. The curriculum should be adjusted with the public work content and more practical or applicable. This adjustment includes the site works supported by related competencies.

The academic approach applied even though it was not suitable which professional education but delivered used the contents required by the organization. This condition allowed the student to comprehend not only the theories but also practices. However, the program remains many shortcomings. This condition compatible with Barnett (2006) who pointed out that the access to the theory of knowledge is essential in building the individual capability. According to this author, recently, the training, education and vocation only focus on work practices and ignore the complexities of works that can be comprehended only by the theory concept. The collaboration between theory and

practice is the essence of professional education. However, some study program could handle optimally, and some could not. The latter may lead by the short-comings lectures from the practitioner. The vocational program also revealed that there were more theoretical than practical subjects related to the public works area. Hence, the curriculum development moderately applicable suit the Ministerial Degree No.13/PRT/M/2014, which require the usable curriculum.

Moreover, the program proposed has a distinguishing factor within its curriculum, such as a primary value and traits of apparatus (Ministry of Law and Human Right of Indonesia, 2017). Wheelahan and Moodie (2011) stated that “the equilibrium of theoretical knowledge and the practices of work as obligatory”. However, they also stated that if this equilibrium leans too far to either side, the program will lose. Moreover, Barnett (2006) noted that the recent Vocational and Training program concern only on the practice of works, and as a result they do not mention the difficulties of work environments. Schon (2018) argued that professional education should strive continuously for life with learning by doing and problem-solving. Support from the government is necessary to promote the learning process of professional and vocational education.

3.5. Teaching Methods

There were three approaches in teaching, such as the teacher center, assignment method, and student center method. The teacher center focuses on lecturing; the assignment method gives students tasks, case study, and seminar assignment; the student center method obliges the students to make the presentation of their assignment (Interview with the Chief of Study MAKSI -UNPAD, 26- 4-'19). Moreover, the program used the case studies to increase the collaboration between theory and practices, for example, the Earth Quake of Palu, the City of The Central Sulawesi, Smart City of Bandung, and Infrastructure Accidents (Interview with the Chief of Study MMPK-UNPAR, 25-4-'19). Furthermore, a field trip or site visit can be executed to broaden the learning experiences. The locations that can be used for learning are Underpass Jatingaleh, Solo-Kertosono highway, MRT of Palembang, MRT of Jakarta.” (Interview with the Chief Study of MMRI-UNDIP, 29-4-'19). The site visit was conducted overseas, for example, in Korea, Taiwan, Japan, China, and Germany. However, there are pros and cons to the implementation of a site visit overseas. The pro side suggested that this program applied not to broaden the learning experiences but to visit the selected countries that have moderate technologies (Interview with Student of MMPK-UNPAR, 14-4-2019). The cons argued that the program focused more on traveling overseas and wasting the budget. While the learning method of the program applied various approaches, but students, as described above, mentioned that the results of the study in some studies program were less applicable. However, authors in the learning concerned to promote the Work Integrated Learning (WIL) as the method that collaborates the formal education and work product as integration between theory and practices (Keleher, Patil & Chattopadhyay, 2011; Cooper, Ornell & Bowden, 2011). According to Cooper, Ornell, and Bowden (2011) other terms are used to describe WIL, such as practicum, internship, field works, cooperative education, field education, sandwich course, service learning, international service-learning. According to Keleher, Patil, and Chattopadhyay (2011), the benefit of WIL includes:

- a. A greater understanding of the technical aspects of their profession,
- b. Broader comprehension of their profession and their workplace, and
- c. Become active learners rather than strategic /pragmatic participants.

These authors also mentioned that professional requires to develop and obtain knowledge which reflects current practice within the profession and workplace as well as a social norm. Hence, WIL's method is suggested as an approach to improve the learning delivery of the future program.

3.6. Adequacy of Scholarship

During the study, the student received a monthly allowance out of salary as an employee (Permen PU RI No. 13, 2014). Besides that, the book subsidy received yearly and research assistance

accepted ones at the end of the study (BPSDM, 2019). The month allowance mostly criticized as less sufficient by students:

“The allowance is not enough, but it is sufficient only for a single person because there is a performance allowance that still paid in the amount of 70 % during the study.”

(In-depth Interview with Participant 03 MTS-ITB, 30-4-2019).

This interview mentioned that the monthly allowance is not adequate but sufficient because there is another allowance that still paid as an employee named performance allowance. During the study, this performance allowance paid in the amount of 70%. The allowance of scholarship was not appropriate to cover spouse or children that joined the student during the study program. The monthly allowance paid about Rp. 1.400.000,- (US \$ 140) per month. Besides, the minimum wages at a national level in 2014 are Rp.1.584.391-(US\$160) (Indonesian Statistic 1997 – 2016). Based on the data, it is seen that the allowance was less than the minimum national wages. The illustration on how student spent the allowance is explained below:

“The student received an allowance sum of Rp. 1.400.000,-/month and cost for renting a single room nearby campus about Rp. 1.300.000,-/month“

(Reflective Journal of Participant 02, MAKSI-UNPAD,10-4-2019).

This interview stressed how difficult the student manages the allowance. The student requirement cost not only for accommodation but also for meals and transportation. Hence, without the payment of the performance allowance, the scholarship's allowance was far from the appropriate live. In sum, the adequacy of the scholarship is not sufficient. The performance allowance that still applied during study played a significant role in making the scholarship allowance sufficient. In contrast, Bryant & Stratton College produced scholarships for the military spouses after the Department of Defense suspended Military Spouse Career Advancement Accounts. The first 100 qualified military spouses who applied and accepted grants of \$ 6,000 toward their degrees (Wiley, 2010). Also, in 2013, the American Society of Safety Professional Foundation established the Family Scholarship Fund to help a family that affected by a workplace accident. The grant is available to spouses and children who lost a loved one in a workplace and provided educational sponsors to minimize the cost impact of their loss and support them in sustaining their education (Professional Safety, 2020). Meanwhile, the Pioneer Services has collaborated with the National Military Family Association (MNFA) to help this military advocacy group's Military Spouse Scholarship Program in 2018-19. The program provides \$ 1.000 and \$500 educational and career scholarship to military spouses for career financing or continuing education (militaryfamily.org).

3.7. Managerial Competencies

There are four competencies found within managerial competencies such as teamwork, communication, public service, and decision making. The finding of these competencies described as follow:

a) The teamwork competency achieved was the third of the fifth level that can develop sufficient teamwork to enhance the organization's performance.

(Interview with Student, 23-4-2019).

b) The communication competency achieved was the fourth of fifth level that comprehended to present the multi-dimension thought through oral or written communication to reach consensus and increase the performance.

(Interview with the Student, 12-4-2019).

c) Competency of public service achieved was the third of the fifth level that able to use the team force and improving the standard of public services at the workplace.

(Interview with Students 2, 12-4-2019).

d) Competency of decision making reached was the fourth of fifth level that able to solve the problems that have high risk, anticipating the impact of the decision, applying the safety measure, and risk mitigation

(Interview with The Section Chief of Data System, 14-6-'19).

Hence, the managerial competency achieved by the program is adequate. These findings are compatible with the study of Gilley, et al. (2010) that require the managerial competencies to facilitate or develop the team. Also, appropriate with the work of Kinnon, et al. (2016) that described managerial competencies include teamwork, communication, and commitment with customers. The latter is related to the public services in the public organization. Meanwhile, Baron (2000) suggest that successful managers or entrepreneur shared a high degree of social competencies with the ability to interact with others effectively. They are good at social perception and adapting to the new social situation, which is vital to their business environment. Moreover, Sandwith (1993) argued that the five areas of managerial competency should include the capability of conceptual or creative, leadership, interpersonal, administrative, and technical competencies.

Also, Dragoni, et al. (2009) pointed out that managers with stronger learning orientations, especially those with access to growth assignments, were more likely to be in developmental assignments and achieve higher levels of competences based on this competency. As a result, managerial competency achieved by the program still needed to be integrated with the related capability, such as the capability of conceptual or creative, leadership, interpersonal, administrative, and learning orientation, as suggested by many authors.

3.8. The curriculum of Vocational

There are two of vocational classes within the program in 2014: the Management Asset in Politeknik Negeri Bandung (PNB) and the Civil Diploma in Politeknik Negeri Kupang (PNK). The Management Asset in the PNB carried out the degree of the Diploma Forth (D4), and the Civil Diploma of PNK performed the Diploma Third (D3). There were eight students enrolled in the Management Asset of PNB, and all passed. However, there were 15 students registered in the Civil Diploma in PNK, but only five students graduated. Moreover, the inquiry only focused on the orientation of the curriculum in that vocational program. The results revealed that the orientation of the curriculum was not suitable for the job's requirements. One student explained his statement:

*"The content of the Asset Management did not 100 % suit the Public Works requirement yet."
(Interview with the Student of D4 -MA-Polban, 5-10-'19).*

This interview described that the content of the curriculum did not fit yet with the IMPWH's demand for work requirements. Another student pointed out:

"The asset management should be approached as a technical application rather than as administrative practice."

(Interview with the student of D4 -MA-Polban, 5-10-'19).

This statement stressed that the applications were more needed than the administrative approached. The writer alleges that the learning method gave fewer practices related to the work environment. Therefore, the student perception of the curriculum was more theoretical than practical. One student comments on this matter:

*"It is too theoretical and does not give a solution to the problems of the asset within IMPWH."
(Interview with student3, D4-MA-Polban, 5-10-'19).*

This interview concludes that the curriculum was still more theoretical than practical. It suggested for the future; the program needs to improve the curriculum of the vocational and to apply the applicative method. The applicative method used the integration between theories and practices—this suggestion suited to the work of (Keleher, Patil, & Chattopadhyay, 2011; Cooper, Ornell, and Bowden, 2011). In the future, the curriculum was suggested to be more related to the practices in handling the government assets within the public institutions, primarily in the IMPWH.

Recommended model of HRD

Employee training and development is one of the essential roles of Human Resources Management. Moreover, this research focuses on the scholarship of IMPWH related to the issue of employee development. Noe (2017) pointed out that the development is similar to training, but it tends to be more future-oriented. Development refers to training, formal education, job experiences, relationship, and assessment of personality, skills, and abilities that help employees to prepare for future jobs or positions. Furthermore, to some extent, the scholarship is a program for improving the quality of the IMPWH's staff while implementing their jobs. In other words, a scholarship is a tool for the development approach in Human Resources Management, especially in IMPWH. Within HRM, Armstrong (2014) stated that the diversity of HRM models exists and practices within a different organization. The organization often only corresponded to the conceptual version of HRM in a few respect. From this perspective, a scholarship, as best practices within IMPWH, is recommended as an essential part of employee development within HRM or HRD models. The researchers develop the model, which involved two domains (organization and individual; and universities & organization). These domains embrace six activities, such as needs analysis, design, implementation, output, outcomes, and monitoring & evaluation. By this model, the HR practitioner may develop a better and quality program of scholarship. The model is shown below:

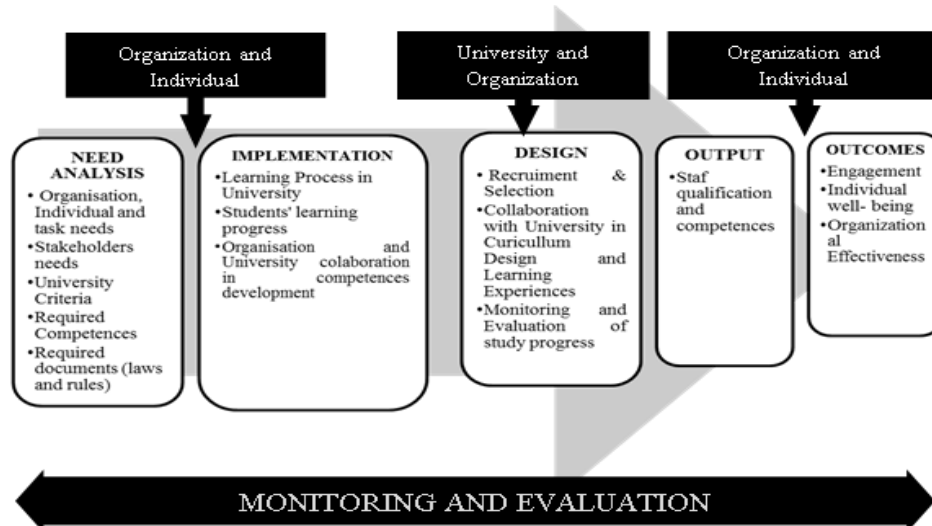


Figure 3. The scholarship model for HRD

Within the domain of organization and individual, is required to analyze the need analysis towards:

- a) Organization, individual and task.

According to Mondy (2008), the organizational analysis includes studying the vision, mission, organizational objectives, and HR strategic planning. Analysis of individual needs is studying to whoever has the competencies identified and who has not. Also, the individual needs to study to know who demand the required development and what the contents are. The task analysis study is to know the tasks to reach the organizational objectives (Noe, 2017).

- b) Stakeholders needs.

These needs embrace the interest of the government, employee organization, and community (Beer, et al., 1984). The government has objectives or interests towards the public employees, such as the quality of the public services in any area related. However, the public employee also has its objective, such as the wellbeing of their life. Also, the community has the same concern, for example, in receiving effective, efficient, and benefit from the public services.

- c) The University Criteria.

The University criteria described as the prerequisite of a student to enter the postgraduate program, such as academic achievement, previous university level of certificate or status, and English

comprehension. These requirements aimed to make sure that one student has capabilities of the academic achievement, the level of university certificate where he or she studied, the English comprehended, and another requirement as needed.

d) The university Required Competencies.

The critical path is to design the required competencies at a very early time in the program. This requirement is essential for designing the curriculum, content, and the learning process. The required competencies should be designed comprehensively and detailed to suit the work environment.

e) Required Document

The program will be implemented without any barrier if it is supported by the contract document, which regulates the activities based on the laws, regulations, and rules related. The contract document arranges the duration of activities, the quantity and quality of the program, and budget allocation.

The second domain is the universities and organizations that manage the design and implementation of the program. Within the design phase, three activities need to be shaped accurately:

a) Recruitment and selection.

These activities played a vital role in developing organizational quality through scholarship. The quality of candidates should meet the organizational requirement and universities' prerequisites for a postgraduate student. The HR planning should consider the strategic objectives, the professional employee demand, and competencies requirements (Nyce, 2006).

b) Collaboration with university in curriculum design and learning experiences.

The main objective of the program enhances employee' competencies. Therefore, the design of the curriculum for achieving those competencies is essential. Furthermore, the inquiry recommended the use of Work-Integrated Learning (WIL) in the development program to help students "ready" to work. WIL can be broadly defined as educational approaches that integrated theoretical learning with its application in the workplace (Keleher, Patil & Chattopadhyay, 2011)

c) Monitoring and evaluation of study progress.

Monitoring and evaluation of the study progress are vital to make sure or control the achievement of the learning process. If there is a problem encountered, for instance, with the students learning results, the quick actions should be taken to solve the matter.

Moreover, within the implementation phase, there are three critical activities to be managed effectively:

a) Learning process in university.

Learning refers to an interactive process between student, lecturer, and learning resources within any environment. This study suggests that the learning process should be used in any method and materials that promote more on applied science or technology rather than the development of theory (Keleher, Patil & Chattopadhyay, 2011; Keleher, Patil & Harreveld, 2011)

b) Student learning progress.

During the program, it is essential to recognize the learning progress includes its barrier. This progress could be managed effectively by using digital technology.

c) Organization and university collaboration in competencies development.

The collaboration between the organization (the owner of the program) and the university (a partner) to implement the program is needed to make sure that the learning experience mainly from the job environments available as learning resources. This place could be an under-construction project using new technology that relevant to the curriculum. The project experience may be transferred for learning using their manager as a practitioner lecture and backed up by the academic lecture as well.

Furthermore, the output and outcomes of the program will be beneficial to individuals and the organization. The output is a qualified staff who have the competence to conduct the job.

The outcomes of the development program enhance:

a) Engagement.

Employee engagement refers to an individual's involvement and satisfaction with as well as enthusiasm for work (Armstrong, 2014).

b) Individual well-being.

Increasing the individual competencies may affect the individual to succeed within his or her job and or career-path. This result enhanced income and supported individual well-being to be better.

c) Organizational effectiveness.

Developing employee competencies is the main focus of the whole program. Therefore if an employee reached the planned competencies, it will affect the work performance and enhanced the organizational effectiveness. Finally, the model emphasized the monitoring and evaluation of every phase or activity for quality and better programs. The model, as a unity or system, consists of phases that will be dependent on each other.

4. DISCUSSION and CONCLUSION

The evaluation of the scholarship program for the human resources development within the Indonesian Ministry of Public Works aims to improve the quality of its policy program and have a better future scheme. The scholarship program for formal education and vocational education within the IMPWH planned to enhance the quality of employees in delivering public services. The project executed through cooperation with chosen domestic universities.

However, this inquiry revealed that HR planning is not design widely includes the professional staff demand and competencies requirement. Furthermore, the law and regulation formally regulate that formal education should follow the professional education, but, its curriculum is converted as academic education and plans to accommodate the demands of the work requirement.

This study found that the results of learning showed satisfactory advancement, particularly in technical competencies that reached by the scheme. This study recommended that the program could be enhanced by four actions. These actions are executing the broad human resources design, reforming the allowances, remedying curriculum, and enhancing the learning method that more integrated with work requirements. The integration can be done by transforming the academic education to vocational education or replace from graduate in master knowledge-oriented to master applied-oriented (profession). Finally, the study suggests the model of the scholarship program as a method toward employee development within the Human Resources Development.

Acknowledgement

The author would like to thank the Indonesian Ministry of Public Works and Housing (IMPWH) for supporting this study.

The data used in this study was confirmed by the researchers that it belongs to the years before 2020.

5. REFERENCES

- Armstrong, M. (2014). *Armstrong's handbook of human resources management practice*. Ashford Colour Press Ltd., UK.
- Amaratunga, D., Baldry, D., Sarshar, M., & Newton, R. (2012). Quantitative and qualitative research in the built environment, application of mixed research approach, *Work Study*, 51(1), 17-31.
- Badan Pengembangan Sumber Daya Manusia (BPSDM) Kementerian PUPR. (2015). *Masterplan Pengembangan SDM Kementerian PUPR*.
- Barnett, M. (2006). *Vocational knowledge and Vocational Pedagogy in Young, Michael and Gamble, Jeanne: Knowledge, Curriculum and Qualification for South African Further Education*, Human Sciences Research Council, Cape Town.
- Baron, P. R. A. (2000). *Psychological perspectives on entrepreneurship: cognitive and social factors in*

- entrepreneurs' success. *Current Directions in Psychological Science*, 9(1), 15-18.
- BPSDM Kementerian PUPR. (2017). Satker Pusdiklat SDA dan Konstruksi NO. 07/KPTS-Satker/Ma/2019 tentang Pemberian Bantuan Pendidikan Bagi Karyasiswa Angkatan 2017 dan 2018 Program Diploma, Sarjana dan Magister TA.
- BPSDM Kementerian PUPR. Surat Kepala BPSDM. (2015). No.PD 01.01-KM 143, 9-6-2015 perihal pendaftaran beasiswa.
- Cakar, F., Bititci, U., & MacBryde, J. (2012). A business process approach to human resource management, *Business Process Management Journal*, 9 (2), 190-207.
- Community Services and Health Industry Skills Council (CS&HISC). (2012). *Environment scan*. Stawberry Hills, NSW: CS&HISC.
- Cooper, L., Ornell, J., & Bowden, M. (2011). *The work integrated learning*. In Kaleher, P., Patil, A., & Harreveld, R.E. (Ed.), *Work-Integrated Learning, built environment and technology: diversity of practice in practice* (pp. 186-205), USA: Information Science Reference.
- Dessler, G. (2011). *Human resources management*. PearsonsEducation.
- Dragoni, et al. (2009). Understanding managerial development: integrating developmental assignments, learning orientation, and access to developmental opportunities in predicting managerial competencies. *Academy of Management Journal*, 52 (4), 731-743.
- Foreman, E., Perry, C., & Wheeler, A. (2015). Higher education scholarships: a review of their impact on workplace retention and career progression, *Open Review of Educational Research*, 2(1), 155-166.
- Ganem, N. M., & Manasse, M. (2011). *The relationship between scholarships and student success: An art and design case study*. Education Research International.
- Ghazala, I., & Habib, J. (2012). Human resource strategies, *Journal of Business and Management*, 3(6), 6-13.
- Gilley, A., Gilley, J.W., Mc Connel, C.W., & Viliquete, A. (2010). The competencies used by effective managers to build teams: an empirical study. *Advances in Developing Human Resources*, 12(1), 29-45.
- Indonesian Constitution Act. (2003). No. 20/2003 *relates to the National Educational System*.
- Indonesian Government Regulation. (2010). NO.14/2010 *regarding Official Education*.
- Indonesian Statistic. (1997 – 2016). *Upah Minimum Rata-Rata /Prop. dan rata-rata Nasional*.
- J.W. Creswell. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, California, SAGE Publications.
- Juhdi, N., Pa'wan, F., & Hansaram, R. (2015). Employers' experience in managing high potential employees in Malaysia, *Journal of Management Development*, 34(2), 187-201.
- Keleher, P., Patil, A., & Chattopadhyay, G. (2011). *Integrating Work and Learning in Postgraduate Maintenance Management Program*. In Keleher, P., Patil, A., & R.E. Harreveld, (Ed.), *Work-Integrated Learning, Built Environment and Technology :Diversity of Practice in Practice* (pp. 186-205). USA: Information Science Reference.
- Kementerian PUPR. (2019). Keputusan Menteri PUPR. No. 02/SE/M/2019 tentang pelaksanaan pendidikan lanjutan program magister (S2) dan doctoral (S3) di lingkungan Kementerian PUPR.
- Kementerian PUPR. (2014). Permen PU RI No.13/PRT/M/2014 tentang Pembinaan dan Pengembangan Aparatur Kementerian PU.
- Kepmendiknas. (2002). No. 45/U/2002
- MacKinnon, N. J. et al. (2016). Management competencies for canadian health executives. View from Field, Healthcare Management Forum, 28 Nov 2016.
- Lee, S. Y., Shin, J. S., & Lee, S. H. (2019). How to execute context, input, process, and product evaluation model in medical health education. *Journal of Educational Evaluation for Health Professions*, 16(40).

- Madapusi, A., & Ortiz, D. A. C. (2014). The influence of technical competence factors in erp system implementations. *Journal of Applied Business & Economics*, 16(2), 27–39.
- Ministry of Law and Human Right of Indonesia. (2017). *Analysis and evaluation center of national laws*, Report on Analysis and Evaluation regarding The National Education system.
- Mondy. (2008). *Human Resource Management*. Pearson Education, UK, 2008.
- Ngasuko, T. A. (2015). *Kesiapan SDM Menghadapi MEA*, retrieved from <http://lspteknisiakutansi.or.id/profile/index/43> LSP Teknisi Akutansi.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2010). *Human resources management*, Singapore: McGraw-Hill Education.
- Noe, R. A. (2017). *Employee training and development*, Mc Graw-Hill Education International Edition, USA.
- Nyce, S. (2006). *Workforce planning for global automotive economy in watson wyatt technical* Paper.No. 2006-RR.1.
- Paradeesh, N. M. (2011). *Human resource planning and development: study material vi semester*, School of Distance Learning, and University of Calicut, India.
- Pathman, D et al. (2000). *State scholarship, loan forgiveness, and related programs: The unheralded safety net*.
- Price, R. (2010). Where have all the worker gone? exploring public sector workforce planning. *The Australian Journal of Public Administration*, 69(2), 202-213.
- Reinhard, K., & Singh, S. (2011). *An archetype of wil in information technology at baden-wuerttemberg cooperative state university ravenburg, germany*. In P. Keleher, A. Patil, & R.E. Harreveld (Ed.). *Work integrated learning, built environment and technology: diversity of practice in practice* (pp 245-255). Information Science Reference, USA.
- Sandwith, P. A. (1993). Hierarchy of management training requirements: the competency domain model, *Public Personnel Management*, Vol.22, No.1, 43-62.
- Schon, D. A. (2018). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass Publishers, San Francisco, CA, US.
- Sistim Administrasi Negara Kesatuan Republik Indonesia, Lembaga Administrasi Negara, 2003.
- Stufflebeam, D.L. (2000). *The CIPP model for evaluation*. In Stufflebeam, D.L., Madaus, G.F. Kellaghan, T. (Eds). *Evaluation models. Viewpoints on educational and human service evaluation*. (pp. 279-317). (2nd ed). Boston: Kluwer Academic.
- Suryavanshi, P., & Iszar, Q. (2017). Human resources planning. *SSARC International Journal of Management*, 3.
- Wijaya, E., & Irianto, D. (2018). Analysis influence of managerial competence, technical competence, and strategic competence on firm performance in electrical engineering company in bandung, *IOP Conference Series: Materials Science and Engineering*.
- Zhang, G. et al. (2011). Using the context, input, process, and product evaluation model (cipp) as a comprehensive framework to guide the planning, implementation, and assessment of service-learning programs. *Journal of Higher Education Outreach and Engagement*, 15, 57-84.