

THE EFFECT OF MOTIVATION AND COMPETENCE FACTOR FOR IMPROVING PATENT EXAMINER EMPLOYEE PERFORMANCE

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Abstract: The human resources who have motivation and competence are success determinants in achieving organizational goals, and those goals will be achieved if the employees demonstrate high performance at work. Several factors that affect performance are motivation and competence. The performance of Patent Examiners at the Directorate General of Intellectual Property DGIP – Ministry of Law and Human Rights (KEMENKUMHAM) tends to decline. The purpose of this study is to analyze the effect of motivation and competence on improving the performance of Patent Examiners in the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP. There were 92 Patent Examiners as respondents, and the method used in this study was sampling technique using proportional random sampling. The data analysis descriptive analysis of respondents, validity and reliability tests, and Structural Equation Modeling (SEM) analysis with Partial Least Square (PLS). The variables are motivation, competence, and performance. The results of the study show that motivation and competence variables are factors that affect the performance improvement of Patent Examiners in the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP. The results of this study comprises : 1) motivation influences the performance of Patent Examiners, 2) competence influence on the performance of Patent Examiners, 3) motivation affects the competence of Patent Examiners, 4) competence influences the motivation of Patent Examiners, 5) motivation and competence together affect the performance of Patent Examiners, 6) the main priorities on improving the performance of Patent Examiners are training and quality development of the employees.

Keywords: competence, motivation, performance, performance improving, Patent Examiner employee

Abstrak: Keberadaan SDM yang memiliki motivasi dan kompetensi merupakan penentu keberhasilan dalam tercapainya tujuan organisasi dan akan tercapai bila pegawai di dalamnya memiliki kinerja yang tinggi. Beberapa faktor yang mempengaruhi kinerja adalah motivasi dan kompetensi. Kinerja pegawai Pemeriksa Paten di Direktorat Jenderal Kekayaan Intelektual (DJKI) – KEMENKUMHAM diindikasikan menurun. Tujuan penelitian ini untuk menganalisis pengaruh motivasi dan kompetensi terhadap peningkatan kinerja pegawai Pemeriksa Paten di Direktorat Paten, DTLST, dan RD – DJKI. Responden dalam penelitian ini sebanyak 92 pegawai Pemeriksa Paten dengan teknik penarikan sampel menggunakan proportional random sampling. Analisis data yang digunakan dalam penelitian ini meliputi analisis deskriptif responden, uji validitas dan reliabilitas, dan analisis Structural Equation Modelling (SEM) dengan Partial Least Square (PLS). Variabel yang digunakan adalah motivasi, kompetensi dan kinerja. Hasil dari penelitian menunjukkan variabel motivasi dan kompetensi merupakan faktor yang dapat mempengaruhi peningkatan kinerja pegawai Pemeriksa Paten di Direktorat Paten, Direktorat Jenderal Kekayaan Intelektual, yaitu : 1) motivasi memberikan pengaruh terhadap kinerja pegawai Pemeriksa Paten, 2) kompetensi memberikan pengaruh terhadap kinerja pegawai Pemeriksa Paten, 3) motivasi memberikan pengaruh terhadap kompetensi pegawai Pemeriksa Paten, 4) kompetensi memberikan pengaruh terhadap motivasi pegawai Pemeriksa Paten, 5) motivasi dan kompetensi secara bersama-sama memberikan pengaruh terhadap kinerja pegawai Pemeriksa Paten, 6) prioritas utama dalam peningkatan kinerja adalah pelatihan dan pengembangan kepada pegawai Pemeriksa Paten.

Kata kunci: kompetensi, motivasi, kinerja, peningkatan kinerja, pegawai Pemeriksa Paten

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INTRODUCTION

The existence of motivated human resources is a determinant of success in achieving organizational goals. The success of an organization depends on how to attract employee motivation and keep it at high performance so that job satisfaction leads to high performance or high-performing people must be satisfied with the results of their job (Muindi and K'Obonyo, 2015). In addition to having motivation, an employee who has competence will support the implementation of his work. Competence is associated with an ability for success and efficiency in carrying out work activities, and increasing knowledge, abilities and skills will result in high performance (Hendriani et al. 2014). Motivation is a concept that we use to describe the force acting on or within each individual that drives and directs behavior (Gibson et al. 2012), whereas according to Robbins and Judge (2013) motivation is not only about working hard but motivation is also a process that describes the intensity, direction, and persistence of an individual in working hard to achieve a goal. Competence can be defined as a group of relevant behaviors or activities, practical or theoretical knowledge, skills, and motivations that build the behavioral, technical, and motivational prerequisites that people need for their job success (Taleghani et al. 2015). Competence according to Dessler (2017) is a personal characteristic that can be demonstrated such as knowledge, skills, and personal behavior such as leadership.

DGIP is one of the Echelon 1 Units which is the implementing element under and responsible to the Minister of Law and Human Rights led by a Director General. The Directorate General of Intellectual Property has the task of carrying out the formulation and implementation of policies in the field of intellectual property by the provisions of laws and regulations. DGIP is expected to be able to carry out its duties and functions in carrying out the formulation of policies in the field of intellectual property legal protection, completion of intellectual property registration applications, investigations, resolution of disputes and complaints of intellectual property violations, cooperation, promotion of intellectual property, and information technology in the field of intellectual property. Patent Examiner is a Special Functional Position in the Subdirectorate of Patent Examination which is directly responsible to the Director of Patents, Integrated Circuit Layout Design (DTLST) and Trade Secrets (RD), where the role of

Patent Examiner is quite important in the examination of Patent documents in taking decisions at the Patent Directorate, DTLST, and RD. The Patent Examiner has the task of examining a patent application which includes the management of the patent application document, the substantive examination of the patent application, and legal analysis related to the patent where the results of the patent examination are whether the patent is granted or rejected. The Patent Examiner should have high performance to be able to produce the best decision to grant or reject the submitted Patent application so that it is beneficial for both domestic and foreign patent applicants and inventors. making the final decision on a patent application. Moreover, at this time the metaverse world opens up opportunities for the emergence of non-tax revenue sources (PNBP) because in it there are trading activities. In general, the relationship between the metaverse and Intellectual Property exists in several ways, namely related to Copyrights, Brands, Industrial Designs, Trade Secrets, and Patents, thus providing an important opportunity for DGIP, especially Patent Examiners, to evolve and become compatible with the metaverse ecosystem.

It is known that the number of performance achievements for the final decision on the examination of Patent documents until 2021 shows good results, as can be seen from the performance achievements in the completion of the final stage of the decision on the examination of the Patent document in 2019 amounting to 5.855, in 2020 the completion of the decision on the examination of the final stage of the document. The final Patent amounted to 12.509, but in 2021 there was a decrease in the completion of the final stage of Patent document examination decisions amounting to 9.624. The number of resolutions resulting from the final stage of the Patent document examination is not proportional to the number of patent applications. It is known that the number of registered patent applications from 2019 to 2021 is quite large, of which the number of patent applications submitted in 2019 amounted to 18.513, in 2020 the number of incoming patent applications decreased by 14.646, and in 2021 the number of patent applications submitted increased by 15.216, but the results of the final decision on the examination of the Patent document have not been able to meet the set target, resulting in a backlog of Patent applications. In addition to these conditions, based on the duties and functions of the DGIP - Ministry of Law and Human Rights (KEMENKUMHAM) Patent Examiner, the mapping Patent Examiners according to their fields,

namely: Mechanics totaling 32 employees, Electro Physics totaling 24 employees, Chemistry totaling 40 employees, Pharmacy having 16 employees, and Biology totaling 8 employees.

The Patent Examiner has an important role in the organization because, in addition to the duties and responsibilities mentioned above, the Patent Examiner is also authorized to make decisions regarding the final stage of a Patent in a product submitted by the Applicant. Considering the important role of the Patent Examiner, the results or their level of success in carrying out their duties and functions greatly affect the performance and success of the DGIP. Therefore, the Patent Examiner must have high performance, so that this organizational goal can be realized in accordance with its vision and mission.

Based on the journal related to motivation from Muindi and K'Obonyo (2015) and Hendriani et al. (2014) in essence it is stated that motivation is a determinant of success in achieving organizational goals and competence is associated with an ability for success and efficiency in carrying out work activities, and increasing knowledge, abilities and skills will result in high performance. Thus, in order to increase the performance of Patent Examiners at DGIP, there should be factors that can be improved, including the motivation and competence of Patent Examiners so that organizational goals can be realized. Research conducted by Kuswati (2020) This research is motivated by the decline of employee performance over a period of time which results in the realization of the work not fully achieving the specified targets. The decline of employee performance is suspected by the decrease in the level of motivation possessed by the employee. From the research results obtained that the effect of motivation on employee performance is quite good.

Research conducted by Kusumawati et al. (2019) shows that competence affects employee motivation, competence affects employee performance, and motivation affects employee performance. Meanwhile, to improve employee performance, the most influential actor is the president director, because the second priority is the manager, followed by the supervisor, the employee himself, the corporate secretary, and finally the board of commissioners. Research conducted by Ma'aruf and Ummul (2020), wanted to know the effect of work motivation on employee performance at PT. Nirha Jaya Engineering Makassar. The results showed that to test the hypothesis through the t test, it showed that

the work motivation variable had a significant effect on the performance of employees at PT. Nirha Jaya Engineering Makassar.

This is also in line with the opinion of Satria and Kuswara (2013) in their research to determine the effect of training and motivation on the work competence of employees of the Bandung City Transportation Service. This shows that one of the factors that can affect competence, of which is motivation, where the influence of work motivation on work competence is quite significant. Research conducted by Yulianto (2017) shows that employee performance with vertical communication is influenced directly and indirectly by motivation, leadership, and competence, while training indirectly affects performance through job satisfaction. Employee performance with horizontal communication is influenced directly and indirectly by leadership, competence, and training, while motivation directly affects performance.

The right strategy for improving performance is also expected to direct the Patent Examiner to achieve its objectives. The Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP have a strong desire to build independence in the field of Patent Examination. In line with this, the successes and achievements achieved by DGIP will be a benchmark for the success of Ministry Law and Human Rights in developing patent applications that are still not perfect so that later they can be used by Patent Examiners as well as the community, nation, and state. One of the keys to success or achievements pursued by the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP lies in its ability to innovate. Therefore, to improve the performance of the Patent Examiner, it is necessary to have a strategy that is supported by all components in the work environment of DGIP.

The purpose of this research : 1) Analyzing the influence of motivation on the performance of the Patent Examiner; 2) Analyzing the influence of competence on the performance of the Patent Examiner; 3) Analyzing the influence of motivation on the competence of the Patent Examiner; 4) Analyzing the influence of competence on the motivation of the Patent Examiner; 5) Analyzing the effect of motivation and competence together on the performance of the Patent Examiner; 6) Analyzing the right strategy in improving the performance of the Patent Examiner's employees.

METHODS

Directorate of Patents, DTLST, and RD DJKI – KEMENKUMHAM as one of the government institutions has a vision, mission, and goals. One way for the vision, mission, and goals to be achieved is with good performance from all existing employees. The problems that occur today are indications of a decrease in employee performance which is thought to be related to motivation and competence. This of course will affect the results of the work of these employees. Employee motivation and competence must be built so that they can maximize performance. Maximum employee performance can be obtained by improving employee performance. This is a step to produce an alternative strategy option as a recommendation for the management of the Directorate of Patents, DTLST, and RD DJKI – KEMENKUMHAM.

This study uses the key elements of motivation presented by George and Jones (2012), namely: the direction of behavior, the level of effort, and the level of persistence. The selection of the use of the key elements of motivation is because it is based on the behavior chosen by employees in carrying out all kinds of tasks for which they are responsible, which will greatly determine the level of effort and level of persistence to achieve its goals. Meanwhile, competence is based on the theory proposed by Rivai and Sagala (2009), namely knowledge, skills, and attitudes. In addition, the development of HR competencies developed by the Directorate of Patents, DTLST, and RD at DJKI – KEMENKUMHAM focuses on these three things. Interviews using a questionnaire instrument are the source of data in this study. The results of the questionnaire will be analyzed descriptively to strengthen the identification of problems that exist in the Directorate of Patents, DTLST, and RD DJKI – KEMENKUMHAM. The influence of motivation and competence on employee performance was tested using descriptive analysis of Structural Equation Modeling (SEM) analysis with Partial Least Square (PLS), the issue of improving employee performance will be identified, and based on these results, managerial implications will be obtained for the Patent Directorate's personnel management, DTLST and RD at DJKI – KEMENKUMHAM. This research took place at the Head Office of the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP Kuningan, South Jakarta. Data collection is carried out from June 2022 to July 2022.

The type of data was using in this study is to use primary data and secondary data, including: 1) Primary data in this study were obtained through interviews using a questionnaire instrument directly to the Patent Examiner at the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP, as well as from the library which was the main reference in data acquisition. The data obtained will be presented in the form of data that will be calculated based on the Likert measurement scale. Primary data were collected using a questionnaire measured by a Likert scale. The Likert scale in general is a scale used to measure attitudes, opinions, and perceptions of a person or group of people about an event or symptom that exists in society. The Likert scale in this study consisted of: strongly agree (5), agree (4), don't agree (3), disagree (2), and strongly disagree (1); 2) Secondary data was obtained by searching the literature and documents related to research materials.

The population is the entire object whose characteristics are to be tested. Meanwhile, the sample is part of the population whose characteristics are to be tested. The population in this study was the DGIP Patent Examiner totaling 120 people. Samples were selected using the Slovin formula, with the formula:

$$n = N / 1 + Ne^2$$

Information: n (minimum number of samples); N (total population); N (percentage of slack in accuracy due to sampling error. The sampling error in this study was 0.05 or 5%. Population data as many as 120 people with a sampling error of 5%, then the number of samples obtained is 92 people).

$$n = 120 / 1 + 120 (0.05)^2 = 92.30 ; 92 \text{ people.}$$

The population in this study was the DGIP Patent Examiner totaling 120 people. Samples were selected using the Slovin formula. The data that has been collected will then be processed so that it has meaning to solve the problems studied. Data processing is carried out after the research data is collected, with the aim of making the data useful for analyzing the influence of motivation and competence on the performance of the DGIP Patent using descriptive analysis, where by analyzing the level of performance effectiveness as measured by a Likert scale.

Descriptive analysis is an analysis used to analyze data by describing or describing the data that has been collected. Descriptive analysis in research is basically a process of transforming research data into a tabulated form so that it is easy to understand and interpret. Tabulation presents a summary, arrangement, or arrangement of data in the form of numerical tables or graphs.

The data were analyzed descriptively to see the characteristics of the respondents and the categories of each variable. The weights that have been set on the questionnaire between 1 to 5 are made on a scale range. Validity is used to measure the validity of a questionnaire, a questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. While the reliability test is used to measure whether a respondent's answer is consistent or stable. If the respondent is consistent in answering the questions in the questionnaire, then the answer is reliable. Validity and reliability testing was carried out using the Minitab 19 program with Cronbach alpha (α) statistical test. A construct or variable is said to be reliable if the minitab19 statistical test gives a value of $> 0,60$.

Reliability is expressed by the reliability coefficient whose numbers are in the range from 0 to 1,00. The higher the reliability coefficient, approaching the number 1,00, the higher the reliability Azwar (2008). On the other hand, the lower the coefficient closer to 0 means the lower the reliability. The following levels of Cronbach's Alpha values are 0,0 – 0,20 less reliable, $> 0,20 - 0,40$ somewhat reliable, $> 0,40 - 0,60$ quite reliable, $> 0,60 - 0,80$ reliable and $> 0,80 - 1,00$ very reliable.

SEM is one type of multivariate analysis (multivariate analysis) in the social sciences. Multivariate analysis is the application of statistical methods to analyze several research variables simultaneously or simultaneously. Variables indicate measurements of research objects such as individuals, organizations, events, activities, and so on. These measurements can be obtained through surveys or observations used to collect primary data and sourced from secondary data databases (Sholihin and Ratmono, 2020). The theory put forward by Ned Kock (2010) in his book (Sholihin and Ratmono, 2020) states that WarpPLS is the first software that can do this. Since most relationships between variables are

nonlinear, WarpPLS can find a "real" relationship between latent variables in SEM analysis. Therefore, often the path coefficients associated with strong real effects can be higher than those estimated by other SEM software. Even in some cases from insignificant to significant at a p-value of less than 1%.

This study uses two variables, namely exogenous and endogenous variables. To facilitate data collection, each variable is grouped into categories according to the measurement scale as follows:

- 1) Independent variables (exogenous variables) are types of variables that explain or influence other variables. In this case, the independent variable is motivation: the direction of behavior, the level of effort, and the level of persistence.
- 2) The independent variable (exogenous variable) for performance and the dependent variable (endogenous variable) for motivation, namely competence includes knowledge, skills, and attitudes.

The three key elements of work motivation according to George and Jones (2012) include 1) Behavior Direction; 2) Level of Effort; 3) Level of Persistence. Competence has three important components (Rivai and Sagala, 2009), namely: 1) Knowledge; 2) Skill; 3) Attitude. Performance according to Nawawi (2006) is defined as things that are done and not done by an employee in carrying out their main tasks. Performance indicators in carrying out work within an organizational / company environment include five elements, namely: 1) Quantity of work achieved; 2) Quality of work achieved; 3) The period for achieving the results of the work; 4) Attendance and activities during attendance at work; 5) Ability to cooperate. The number of indicators is 44 statements, the Motivation variable has 3 Sub Variables and 8 indicators; the competency variable has 3 sub-variables and 18 indicators, and the performance variable is 5 Sub Variables and has 10 indicators. The influence of motivation and competence on employee performance was tested using descriptive analysis of Structural Equation Modeling (SEM) analysis with Partial Least Square (PLS), the issue of improving employee performance will be clearly identified, and based on these results, managerial implications will be obtained for the Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP Directorate of Patent, Layout Design of Integrated Circuit, and Trade Secret – DGIP.

The research hypotheses used in this study are :

- H1: Motivation significantly affects the performance of the Patent Examiner;
- H2: Competence significantly affects the performance of the DGIP-Patent Examiner;
- H3: Motivation significantly affects the competence of the DGIP Patent Examiner;
- H4: Competence significantly affects the motivation of Patent Examiners;
- H5: Motivation and competence together significantly affect the performance of the Patent Examiner.

RESULTS

Characteristics of Respondents

Based on the results of the processed data, it can be seen that the number of male Patent Examiner employees, namely 55.4%, has a greater proportion than female employees, which is only 44.6%. Based on observations in the field, it appears that the dominance of technical tasks is dominated by male employees. This is because in the Subdirectorate of Patent Examination-DGIP the activities carried out are related to technical matters which are often done by men. In addition, when the target is being pursued, men have the endurance to work better than women. It is also seen that the respondents who are married are 90.2%, while the respondents who are not/unmarried are 9.8%. This indicates that the Patent Examiner is married or has family dependents. Also seen is the age distribution of the respondents. Most of the respondents, namely 40,2% of the Patent Examiner's employees aged 30-40 years, while the smallest number was respondents under the age of 30 years, which was 4,3%. This shows that the Patent Examiner's employees are dominated by productive age.

In this study, educational background is divided into two levels, namely S1 and S2. Respondents in the first order have S1 education, which is 67.4% and in the second place, respondents with S2 education are 32.6%. This shows that most of the Patent Examiner's employees are highly educated. The tenure of the respondents, most of whom had worked 26 to 30 years, was 28.3%. While the smallest has a tenure of more than 30 years, which is 3.3%. On average, Patent Examiner employees have a working period of more than four years, there are even employees whose tenure reaches 31 years as many as 3 Patent Examiners. This

shows that the Patent Examiner's employees have a loyal attitude in their work which is indicated by their tenure. It also shows that most of the respondents are in group IV, which is 58.7%, while a small proportion of respondents are in group III, which is 41.3%.

The motivation of Patent Examiner Employees – DGIP

In general, the average employee motivation is very high, namely 4.365. The Patent Examining Employee assumes that he agrees with the statement that the employee works according to the established standards. In addition, the Patent Examiner staff also agrees that the employee conveys their ideas, which have a positive impact on the agency.

Competence of Patent Examiner Employees – DGIP

In general, the competencies possessed by employees are on average very high, namely 4.246. Dominant Patent Examining Employees think that they agree with the statement that their knowledge supports professionalism, their skills support the completion of daily work, their skills make employees feel more confident in completing work, and they are able to use computers with various software such as Microsoft Office smoothly. Utilizing information technology in supporting the smooth implementation of tasks.

Performance of Patent Examiner Employees – DGIP

It can be seen that the performance of the Patent Examiner's employees has a high average performance, which is 4.149. Dominant Patent Examining Employees assume that they agree with the statement that employees do a job with full accuracy, always maintain the quality of work in completing work, are almost always present at work, foster good cooperation with colleagues, foster good cooperation with leaders and are willing to help with difficulties work colleague.

Test the Validity and Reliability of Measuring Instruments

Validity testing in this study was carried out with the one-shot method in which the questionnaire was given once to the respondent and then the data was analyzed. As an initial stage, the questions are declared valid, so they are used for further discussion and

invalid questions are ignored or removed from the questionnaire. Decision-making is valid or not based on the value of the indicator r-count compared to the value of the r-table or probability value (p-value). The indicator is declared valid if the correlation coefficient p-value <0.05. The reliability test used in this study was using the Minitab19 application, namely the Cronbach's Alpha statistical test. The results of the reliability test on each indicator (question items) for each dimension have a Cronbach's Alpha of 0.7567 of 44 indicators (Table 1).

Table 1. Questionnaire Reliability Test

Cronbach's Alpha	<i>N of Items</i>
0,7567	44

The results of reliability testing on all indicators on the dimensions used in the study are acceptable, as well as the overall level of measurement of a construct or variable declared reliable if the Cronbach alpha value > 0.60, and also the alpha value of the measurement results more than 0.7 is acceptable.

The Effect of Motivation and Competence Factors on the Performance of Patent Examiner Employees – DGIP

Partial Least Squares (PLS) is a powerful analytical method and is often referred to as soft modeling because it eliminates OLS (Ordinary Least Square) assumptions such as regression. SEM-PLS usually consists of two sub-models, namely the measurement model or the outer model and the structural model or the inner model. The measurement model shows how the manifest or observed variables represent the latent variables to be measured. while the structural model shows the power of estimation between latent variables or constructs.

The results of the initial analysis of the outer reflective model. Evaluation of model improvement is carried out by looking at each latent variable coefficient with its indicators. Coefficient values below 0.7 should be excluded from the model. The assessment of the outer reflective model is done by comparing the factor loading with the standard value. Indicators that have a factor loading value below the standard should be excluded from the model. Indicators that do not meet the standard values in this model are issued in stages, namely, the issuance of indicators that have the smallest loading factor that does not meet the standard values,

until in the end the best model according to the standard is obtained. Evaluation of the coefficient values in the reflective model has been carried out with the issuance of indicators. After that, the process is repeated without the indicators that have been issued to obtain the best model.

Outer Model Research Evaluation (Measurement Model)

Outer model analysis was conducted on the latent variables of motivation (X1), competence (X2), and performance (Y). The composite reliability of this model for the latent variable of motivation is 0.956, competence is 0.977 and performance is 0.966. Cronbach's Alpha for the latent variable of motivation is 0,948, competence is 0.975 and performance is 0,961. This value is well above 0.7 which indicates that the stability and internal consistency of the indicators are very good, both on the latent variables of motivation, competence, and performance. The reliability of the indicator is indicated by the loading factor value, which reflects the strength of the interrelation between the latent variables of motivation, competence, and performance with each indicator.

Motivation (X1) in the final model is reflected by eight indicators, namely working according to standards (X111), conveying ideas that have a positive impact on the agency (X112), and working hard even though the leader is not supervising (X113), carrying out assigned tasks. given the best leadership (X121), willing to work hard to achieve agency targets (X122), fight hard so that work results are satisfactory (X123), will not give up on work despite the many obstacles faced (X131), and will look for alternatives another when the effort made at work does not produce maximum results (X132). These eight indicators have a loading factor value above 0.7 so that they truly reflect the motivation of the Patent Examiner-DGIP employee.

The final model on the latent variable of competence shows that there are eighteen indicators that reflect the competence itself, namely the knowledge possessed to support the professionalism of the work in the Patent examination (X211), the tasks carried out in accordance with the knowledge possessed (X212), mastering the field of work undertaken when (X213), the use of information sources such as books, laws, and technical guidelines in supporting the implementation of tasks (X216), the use of information sources such

as journals in supporting the implementation of tasks (X217), the use of information sources such as mass media in supporting the implementation of tasks (X218), skills possessed to support the completion of daily work (X221), able to solve problems that occur at work (X222), skills possessed make employees more confident in completing work (X223), able to use computers with various software such as Microsoft Office (X224), the benefits of information technology in supporting the smooth implementation of tasks (X225), mastering technical skills related to technological developments in the scope of work (X226) having sufficient experience in the field/duties of the current position (X227), respecting the opinions of others in responding to a problem (X227) X231), able to adapt to a new work environment (X232), happy when given tasks that require serious effort (X233), happy when given tasks that require high skills (X234), and always open when the results of work are given input by colleagues or leader (X235). Meanwhile, on the latent variable of performance and its indicators, the indicator that has the greatest reliability in reflecting performance is always maintaining the quality of work in completing work ($Y22 = 0.938$), describing the largest interrelation in performance. Other indicators are being able to complete work on time ($Y31 = 0.882$), doing a job with full accuracy ($Y21 = 0.870$), fostering good cooperation with co-workers ($Y51 = 0.866$), and being serious about working at work ($Y43 = 0.865$), willing to help the difficulties of co-workers ($Y53 = 0.862$), foster good cooperation with the leadership ($Y52 = 0.852$), in carrying out tasks, employees try to arrange a work plan schedule so that they can be completed on time ($Y32 = 0.842$), produce a quantity of work maximum ($Y12 = 0.841$), always meet the work target that has been set ($Y11 = 0.788$).

Two types of validity in PLS - SEM are convergent validity and discriminant validity. The representativeness can be expressed using the average variance extracted (AVE). The AVE value in this study for the latent variable of motivation is 0.733, competence is 0.703 and performance is 0.742. This value is above the required standard value of 0.5. This shows that this research is consistent in measuring what it measures. The loading for each indicator is expected to be higher than its respective crossloading, the results of the analysis show that the loading value of the motivation, competence, and performance indicators is higher than the respective crossloading. This shows that the indicators of motivation, competence, and

performance indeed describe a form of reflection of motivation, competence, and performance.

Evaluation of Inner Model Assessment

The R^2 criterion of endogenous latent variables shows how much diversity of endogenous variables can be explained by exogenous variables. The endogenous variables in this study are competence (X2) and performance (Y). The competency variable R^2 value of 0.835, which means that the competency variable can be explained by the motivation variable with a diversity of 83.5% ($0.439 \times 100\%$). The performance variable obtained an R^2 value of 0.852 which can be interpreted that the variability of the performance construct of the Patent Examiner - DGIP employee can be explained by the variability of the motivation and competence construct of 85.2% ($0.852 \times 100\%$) while the remaining 14.8% ($100\% - 85.2\%$) is explained by other variables outside the studied. The R-square value of 0.852 is categorized as the feasibility of the model is said to be good.

This value is well above 0.7 which indicates that the stability and internal consistency of the indicators are very good, both on the latent variables of motivation, competence, and performance. The reliability of the indicator is indicated by the loading factor value, which reflects the strength of the interrelation between the latent variables of motivation, competence, and performance with each indicator. The results of the assessment of the outer reflective model and the standard values that are met are presented in Table 2.

Evaluation of Inner Model Assessment

The inner Model (structural model) is a model that relates latent variables. Measurement of the Inner Model can be seen in Table 3. The R^2 criterion of endogenous latent variables shows how much diversity of endogenous variables can be explained by exogenous variables. The endogenous variables in this study are competence (X2) and performance (Y). The competency variable obtained an R^2 value of 0.835, which means that the competency variable can be explained by the motivation variable with a diversity of 83.5% ($0.835 \times 100\%$). This is in accordance with the opinion of Moehariono (2009), that competence is not only influenced by motivation factors, but also by innate talents, namely talents that have existed and are inherent since they were born. In addition, competence

is also influenced by the knowledge possessed, both from formal and non-formal education, skills or expertise possessed and the environment from their daily lives. The performance variable obtained an R² value of 0.852 which can be interpreted that the variability of the performance construct of the Patent Examiner - DGIP employee can be explained by the variability of the motivation and competence construct of 85.2% (0.852 x 100%) while the remaining 14.8% (100% - 85.2%) is explained by other variables outside the studied. The R-square value of 0.852 is categorized that the feasibility of the model is said to be good.

The path coefficient estimate is an evaluation of the coefficient value, the real effect of the bootstrapping value, and the magnitude of the coefficient value. Bootstrapping technique is a technique of recalculation of data randomly to obtain the T-statistic value. Hypothesis testing is done by comparing the value of the t-count with the t-table. Tests with a significance level of 5% if the t-statistic value > 1.96 then the null hypothesis (H0) is rejected. The t-statistical value of the influence coefficient of the latent variable was obtained from PLS Bootstrapping. The parameter coefficient values can be seen in the path coefficient values presented in Table 4.

Table 2. Results of assessment criteria and standard score

Criteria	Results of assessment
Composite Reliability (ρ_c)	ρ_c Motivation = 0.956; ρ_c Competence = 0.977; and ρ_c Performance = 0.966 has a value of $\rho_c > 0.7$ which describes internal consistency because it is above 0.7
Cronbach's alpha	Cronbach's alpha Motivation = 0.948 Competence = 0.975 and Performance = 0.961. It is the same with composite reliability, that the model is good if it has a value above 0.7, which indicates that the construct is reliable.
Indicator Reliability	The factor loading of each indicator in the initial and final models is shown in Appendix 4. Indicators with a loading factor of < 0.7 need to be removed from the model because they do not reflect the latent variables consistently and stably.
Average Variance Extracted (AVE)	AVE Motivation = 0.733; AVE Competence = 0.703 and AVE Performance = 0.742. The three latent variables have a value > 0.5 so that it can be stated that the model is valid.
Criterion discriminant validity crossloading	All indicator correlations of each latent variable to its latent variable have a greater value than the correlation to other latent variables. This illustrates that the validity has been met.

Table 3. Value of inner model analysis

Criteria	Results of assessment
R ² endogenous latent variable	R ² value from research results: R ² for Competence (X2) = 0.835 (good) R ² for Performance (Y) = 0.852 (good) The grouping of R ² values (Ghozali, 2006) is good (0.67), moderate (0.33), and weak (0.19)
Path coefficient value	The values estimated for the path relationships in the inner model should be evaluated in terms of the strength and significance of the relationships
Goodness of fit (GoF)	The GoF index is used to measure the validation between the measurement and structural models. The GoF value consists of 3 categories, namely: small (0.1), moderate (0.25), and large (0.36). The GoF value in this study was 0,478, meaning it was included in the large category. With the formula: GoF = AVE X R ² .

Table 4. Path coefficient value

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1→ X2	0.914	0.902	0.039	23.471	0.000
X1 → Y	0.376	0.378	0.100	3.759	0.000
X2 → Y	0.567	0.560	0.104	5.454	0.000
X1 → Y	0.376	0.375	0.093	4.030	0.000
X2 → X1	0.914	0.902	0.038	24.056	0.000
X2 → Y	0.567	0.560	0.101	5.610	0.000

Hypothesis 1

The value of the coefficient of the influence of motivation on performance is 0.376, the sample mean value is 0.378 and the t-statistic value is 3.759. Because the t-statistic value is $3.759 > 1.96$, then reject H₀. Explanation of the statistical hypothesis formulation: H₀: There is no effect of motivation on the performance of the Patent Examiner, H_a: There is the effect of motivation on the performance of the Patent Examiner. This proves that within the employee environment of the Patent Examiner - DGIP, motivation has a significant positive effect on performance. Based on this, it can be concluded that the higher the motivation, the higher the employee's performance. This is in line with the research conducted by Fomenky (2015) which has aspects of intrinsic and extrinsic motivation provided by an organization that have a significant impact on employee performance. This is in line with the theory that rewarded effort creates more value than unrewarded effort. Employees want their efforts to be appreciated and recognized. This will ultimately improve performance. A study by Aly and Shanawany (2016) shows that important motivation has a positive and significant relationship to employee performance and productivity.

Hypothesis 2

The coefficient value of the influence of competence on performance is 0.567, the sample mean value is 0.560 and the t-statistic value is 5.454. Because the t-statistic value is $5.454 > 1.96$, then reject H₀. explanation of the statistical hypothesis formulation: H₀: There is no influence of competence on the performance of the Patent Examiner; H_a: There is an effect of competence on the performance of the Patent Examiner. This proves that within the employee of the Patent Examiner - DGIP, competence has a significant positive effect on performance. Based on this, it can be concluded that the higher the competence, the higher the employee's

performance. This is in line with research conducted by Rahmat (2015) which examines the relationship between competence and work environment with the performance of the Youth and Sports Department employees in Gorontalo City. The results showed that there was a positive and very significant relationship between competence and employee performance, and there was a significant relationship between the work environment and employee performance. The results of this study are also in line with the results of research from Prasetio et al. (2014), that competence has an effect on employee performance.

Hypothesis 3

The value of the coefficient of the influence of motivation on competence is 0.914, the sample mean value is 0.902 and the t-statistic value is 23.471. Because the t-statistic value is $23.471 > 1.96$, then reject H₀. Explanation of the statistical hypothesis formulation: H₀ : There is no influence of motivation on the competence of the Patent Examiner H_a : There is the effect of motivation on the competence of the Patent Examiner. This proves that within the employee environment of the Patent Examiner - DGIP, motivation has a significant positive effect on competence. This is in accordance with the opinion of Sutrisno (2009), that a person acts of his own volition in an effort to develop his abilities optimally. This shows that the motivation that exists in a person will encourage a desire to develop competence.

Hypothesis 4

The coefficient value of the influence of competence on motivation is 0.914, the sample mean value is 0.902 and the t-statistic value is 24.056. Because the t-statistic value is $24.056 > 1.96$, then reject H₀. explanation of the statistical hypothesis formulation: H₀ : There is no influence of competence on the motivation of the Patent Examiner; H_a : There is the effect of competence

on the motivation of the Patent Examiner. This proves that within the employee environment of the Patent Examiner - DGIP, competence has a significant positive effect on motivation. This is in line with research conducted by Triyanto and Sudarwati (2014) which shows that there is a positive and significant influence of competence on the work motivation of PT. KAI at Sragen Station. There is a positive and significant effect of appreciation on the work motivation of employees of PT. KAI at Sragen Station.

Hypothesis 5

Hypotheses 1 and 2 show that motivation and competence partially affect employee performance, so if they are combined together, it will have a significant effect on performance. Therefore, this proves that within the employee environment of the Patent Examiner - DGIP, motivation, and competence together have a significant positive effect on employee performance. Based on this, it can be concluded that the higher the motivation and competence of an employee, the higher his performance. This is in line with research conducted by Rakhma et al. (2015) who tried to examine the relationship between competence and motivation in the performance of the Wonosobo District Social Service. The results showed that competence and motivation had a positive and significant relationship with organizational performance.

The Goodness of Fit (GoF) is a model goodness test that validates the combined performance of the measurement model between latent variables and their indicators and structural models between latent variables. The results of the analysis show that the GoF value in the Structural Equation Modeling model has a value of 0.478, which means that the value is included in the large category. Based on this, it can be stated that the Structural Equation Modeling model between the variables of motivation, competence, and performance has a good performance and validates the overall model well.

Managerial Implications

Based on the results of research that has been done regarding motivation and competence factors to improve the performance of Patent Examiners at DGIP, namely in descriptive analysis, respondents who

filled out the most questionnaires were male Patent Examiners, namely 55.4%, this happened because in the Sub Directorate Patent Examination-DGIP the activities carried out are related to technical matters which are often done by men. In addition, when the target is being pursued, men have the endurance to work better than women. Married respondents are 90.2%, while respondents who are not/unmarried are 9.8%. This indicates that the Patent Examiner is married or has family dependents. Most of the respondents to the Patent Examiner's employees are aged 30 - 40 years, namely 40.2%, which is a productive age, which is expected to be able to bring an expectation of great support for the progress of the organization. Respondents have S1 and S2 educational backgrounds, where the first order is S1 education, which is 67.4% and in the second place, respondents with S2 education are 32.6%. This shows that most of the Patent Examiner's employees are highly educated. The higher the level of education, the tendency to have high competence as well, by the technical competence of the Patent Examiner's employee. The working period of the respondents, most of whom had worked 26 to 30 years, was 28.3%. This shows that the Patent Examiner's employees have a loyal attitude in their work as indicated by their tenure, while the majority of the respondents are in group IV, which is 58.7%, this shows that the Patent Examiner's employees have employees who do jobs that require a certain skill. in certain fields of science with a deeper understanding of the rules of science. The results obtained are the percentage of Patent Examiner Positions, namely the order of the most positions, namely Intermediate Expert Patent Examiner 32.65%, Junior Expert Patent Examiner 27.2%, Main Expert Patent Examiner 25% and the least is First Expert Patent Examiner 15.2%.

The final SEM-PLS model of motivation (X1) is reflected by eight indicators, where the three highest indicators are striving hard so that the work results are satisfactory ($X123=0.898$), carrying out the tasks given by the leadership as well as possible ($X121=0.889$), conveying ideas that have a positive impact on the agency ($X112 = 0.882$) and the three lowest indicators are looking for other alternatives when the efforts made at work do not produce maximum results ($X132 = 0.843$), will not give up at work despite the many obstacles faced ($X131=0.827$), and will work according to the standard ($X111=0.756$).

While the competence (X2) SEM-PLS final model is reflected by eighteen indicators, where the three highest indicators are the skills possessed to make employees more confident in completing work ($X223 = 0.897$), the skills possessed support the completion of daily work ($X221 = 0.886$), always open when the work results are given input by colleagues or leaders ($X235 = 0.872$), and the three lowest indicators are the use of information sources such as journals in supporting the implementation of tasks ($X217 = 0.782$), the use of information sources such as mass media in supporting the implementation of tasks ($X218=0.761$), and being able to use computers with various software such as Microsoft Office ($X224=0.711$).

Meanwhile, the latent variables of performance and indicators are reflected by ten indicators, where the three highest indicators are always maintaining work quality in completing work ($Y22=0.938$), being able to complete work on time ($Y31=0.882$), and doing a job with full accuracy. ($Y21 = 0.870$), and the three lowest indicators are in carrying out their duties, employees try to arrange a work plan schedule so that it can be completed on time ($Y32 = 0.842$), produce the maximum quantity of work results ($Y12 = 0.841$), and always meet the work targets set. has been set ($Y11 = 0.788$).

Priority for the factor is competence. Meanwhile, the main priority in improving performance is training and development for Patent Examiner employees. This is done because the training helps the Patent Examiner employees in always maintaining the quality of the Patent examination in completing the work. For example, training and development related to the Examination Guidelines for Patent and Utility Model from WIPO (World Intellectual Property Organization), EPO (European Patent Office), USPTO (United States Patent and Trademark Office), JPO (Japan Patent Office), IP Australia. The more Patent Examiners know how to conduct patent examinations at the Foreign Patent Office regarding novelty, inventive steps, and industrial applicability, the knowledge that has been obtained from the training can be used as a role model that does not conflict with the Patent Law in force in Indonesia. The regeneration process in training and development should be carried out as soon as possible so that newly appointed Patent Examiner employees in the Special Functional Position of Patent Examiners can balance the abilities possessed by Senior Patent Examiner employees so that they can collaborate in creating the best performance.

DGIP management should also increase employee motivation in carrying out work that is part of their daily routine and also fulfills monthly patent inspection work targets, both individual targets and organizational targets. DGIP management should have the ability to motivate employees of Patent Examiners, which is one of the important factors that determine employee performance. For example, holding motivational training by inviting the management-ppm team related to Managing People for Productivity, it is hoped that after participating in the motivational training the Patent Examiner can increase self-motivation at work, empower groups, manage conflicts within the team, and increase the bond between Patent Examiner employees, as well as motivation. What can be done is by providing rewards and punishments. This is in line with the opinion of Saeed and Shah (2016) who states that rewards and compensation should be given to employees to make them motivated and committed. DGIP management must also pay attention to the cooperation and organizational culture of the Patent Examiner, which will lead to a motivation to perform even better. This is in line with the opinion of Bhatti et al. (2011), that organizational culture provides a source of motivation and employee commitment.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The results of this study indicate that 1) Motivation influences the performance of Patent Examiners; 2) competence influences the performance of Patent Examiner employees; 3) Motivation influences the competence of Patent Examiners; 4) competence influences the motivation of Patent Examiner employees; 5) motivation and competence together influence the performance of the Patent Examiner's employee; 6) the main priority in improving performance is training and development for Patent Examiners.

Limitations in this research, so it can be given more attention to future researchers in further refining his research because this research itself certainly has shortcomings that need to be improved in future studies, including 1) The number of respondents which is only 92 people, of course, is still not enough to describe the actual situation; 2) In the data collection process, the information provided by the Patent Examiner through a questionnaire sometimes does not show the respon-

dent's actual opinion, this happens because sometimes there are differences in thoughts, assumptions and different understandings of each respondent, as well as other factors such as honesty in filling out respondent's opinions in the questionnaire.

Recommendations

Suggestions from this research that 1) competency improvement factors that need to be developed better and optimally by Patent Directorate employees are skills and technical capabilities related to job specialization at the Patent Directorate; 2) to further optimize the performance achievement of all employees of the Patent Directorate. Further research should use motivation theory that is adapted to the conditions of the object of research, taking into account the analytical approach used and expanding the scope of research not only limited to one work unit. In addition, the use of Key Performance Indicators (KPIs) should be carried out to better reflect employee performance measurements, where performance indicators must meet specific, measurable, achievable, relevant, time-bound, and challenging criteria; 3) currently, the metaverse world opens up opportunities for the emergence of non-tax revenue sources (PNBP), because in it there are trading activities. In general, the relationship between the metaverse and Intellectual Property is in several ways, namely those related to Copyright, Brands, Industrial Designs, Trade Secrets, and Patents, thus providing an important opportunity for DGIP to evolve and become compatible with the metaverse ecosystem. Further research should use competency theory that is adapted to the conditions of the object of research on improving the performance of DGIP employees by paying attention to the analytical approach used and expanding the scope of research from the digital era to digital reality (metaverse).

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