

Computer Based Management Information System towards Employee Performance in Indonesian National Police Educational Headquarters Bandung

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Abstract—This research is entitled "The Contribution of Computer Based Management Information System to Employee Performance at the Indonesian National Police Educational Headquarters". The problem discussed on how much the influence the computer-based management information system has on employee performance. In general, the research objective to be achieved by the author is to find out an overview of information systems on computer-based management of employee performance at the National Police Educational Education Headquarters in Bandung. The method used in this study is descriptive mode with a quantitative approach. Data collection techniques used closed questionnaires and respondents were employees who numbered 83 people as research samples. The results of the general trend calculation used the Weighted Means Score (WMS) indicate that the computer-based management information system is in the very good category with an average score of 3.23 and the performance of employees is also very good with an average score of 3.27. The results of the normality test showed that the X and Y variables were normally distributed, and then the data analysis used parametric statistics. Analysis of the correlation between variables X to Y is 0.697, that means that the two variables at the level of a strong relationship and there is a positive correlation. The test results of the significance of the correlation with the t-test on the variable X to Y obtained by $T_{count} > T_{table}$ ($8.8738 > 1.98$) which means that the correlation coefficient found is significant (can be applied to the population where the sample was taken). Correlation analysis can be continued by calculating the coefficient of determination. The coefficient of determination test results that the variable X gives an effect on the Y variable of 48.5% while the remaining 51.5% is influenced by other factors. Based on the results of this study, it can be concluded that there is a positive and significant relationship between computer-based management information systems on employee performance at the National Police Educational Education Office in Bandung.

Keywords—management information systems; computers; employee performance

I. INTRODUCTION

Information as an organizational resource is increasingly considered important to be managed as well as other organizational resources. Organizations in their operations

always need systems to collect, process, store, look back, and distribute information. The effect is that the flow of information can flow very quickly too. All these developments increasingly make information a very valuable resource and need to be managed carefully. Therefore, we need an information system that can do all the data processing for management functions which can also be used in decision making. This idea of information is known as a management information system. With the advent of computer technology and the development of its users, each office work unit uses computer assistance. The use of computers can also improve employee performance and time efficiency. But in this study researchers focused more on the usefulness of computers to employee performance.

Performance is the result of work that has a strong relationship with the organization's strategic goals, customer satisfaction, and contributes to the economy. Performance is about doing the work and the results achieved from the job and about what is done and how to do it. Educational institutions that print the National Police carry out various changes nationally including restructuring policies, tasks and functions. Particularly for the National Police Educational Agency in line with the establishment of Educational Centers in other Police circles. Based on the Chief of Police Decree No. Pol: Skep / 102 / V / 2003 dated May 23, 2003 concerning the Liquidation of the National Education Center and the decree being the Center for the Education and Training of the National Education and Training Agency. The National Police Educational Center is tasked with organizing Intel education which is able to be a prime public servant and full of excellence in detecting it early, securing every society and creating conducive conditions in supporting national development to create a prosperous Indonesian society. To carry out these tasks, the National Police Educational Education Office requires relevant, accurate data and information to be able to carry out their tasks effectively and efficiently.

Although sophisticated facilities and infrastructure are available, the absence of divisions or special sections that deal with the problem of Management Information Systems (known as SIM) is an obstacle to the availability of information that

meets the requirements. More specifically, based on preliminary studies conducted by researchers, not only there is still a lack of special SIM experts used in information management institutions, but also there is a lack of understanding of how to use computers and computer software optimally. It also shows that the required data are still presented in book form and handwriting or manual of the data that has been made and the lack of procurement of training and competency development specifically regarding computer-based SIM as well as the use of computers and computer software for employees in the Office of the National Police Educational Education Office. Moving on from the various descriptions and problems above the author is interested in conducting a study entitled "Contribution of Computer-Based Management Information System to Employee Performance in the Office of the National Police Educational Education Center Bandung".

II. LITERATURE REVIEW

A. Management Information System

Sistem Informasi Manajemen (SIM) or management information system (MIS) is an information system used to present information that is used to support operations, management, and decision making within an organization. Usually SIM produces information to monitor performance, maintain coordination, and provide information for organizational operations. Generally, SIM takes data from the transaction processing system.

Management Information System (SIM) is essentially a form of information system aimed at serving managers. Actually the SIM is focused on tools to accelerate managers to get information. The definition of a management information system is a term commonly known to people as an integrated human / machine system to present information to support the operational, organizational, and decision-making functions within an organization. This system in the way it works uses hardware and computer software, guidelines procedures, management models, and decisions as well as a bank / database called a database. The following will explain some definitions of management information systems (MIS) presented by several experts / experts:

Robert G. Murdick and Joel E. Ross in their book entitled "Information Systems for Modern Management" defines SIM as follows: "SIM" is a communication process in which input information is recorded, stored, and processed for produce output in the form of decisions about planning, operation and supervision [1].

In line with the above opinion, Moekijat states that: "Understanding SIM emphasizes the function of the system as a formal system of reporting, grouping, dissemination of information for the benefit of the organization" [2]. In this sense it emphasizes more on the SIM function as a form of the process of utilizing and disseminating information for the benefit of the organization. But the SIM is not so limited, SIM is a system that performs the process for information (starting from collection to data processing) to then be stored or directly utilized by spreading to people or units in the organization that

require decision making, policy formulation and plans or implementation daily tasks.

Seeing from several exposures about the SIM, it can be concluded that SIM is something that is complex and complicated and has a clear work procedure. Each component in the SIM has clear tasks and functions, such as data collection, data processing, data and information storage, information dissemination and so on.

B. Computer

The term computer is taken from Latin "Computer" which means counting (to compute or to reckon). The following will explain some definitions of computers presented by several experts / experts:

According to Gordon B. Davis in his book "Introduction to computers" defines computers: "Computers are special types of calculators that have certain definite properties [3].

With this function now the computer becomes an important and can be used to help humans in an organization in the management process in solving a problem.

C. Computer-Based Management Information System

Computer-based Management Information System (MIS) is a system that places computer data processing tools in a central and very important position. Computer-based management information system (computer-based management information system) consists of humans, hardware (software), software (software), data, and organizational procedures that interact with each other to provide data and information on time to parties inside and outside the organization that relate to the management information system.

Theoretically, computers are not a prerequisite for a management information system. Although the computer is able to complete the task of processing information and data in an information, the use of that information remains depend on the human resources that move it. No matter how sophisticated a computer is used in an organization, if its human resources are not able to use and utilize the computer to its full potential, then the computer will not have a positive and beneficial effect. However, the computer used is only a tool to facilitate human work.

The purpose of management information systems is to obtain information quickly aimed at managers or employees with the aim of supporting the decision making process and to improve the planning and supervision processes in an organization.

The use of computers in the Management Information System (SIM) very much helps employees, especially managers within an organization in the decision making process. The computer in the SIM system is formulated as an auxiliary tool in the form of electronics that functions to process data, is able to receive input and output, has high speed, high accuracy, and is capable of storing instructions to solve problems. With the development of computers in handling various life problems, it is necessary to review what benefits are obtained from the use of computers in SIM

compared to the investments we make in procuring the computer.

The application of a computer-based management information system (SIM) in an organization is a demand that is very much needed today, even without losing the function of the manual system. The use of computer-based management information systems can improve employee performance in order to support activities within an organization.

D. Employee Performance

The definition of performance comes from the word job performance / actual performance which means work performance or actual achievement by someone. According to Malayu S.P Hasibuan, the notion of performance is "A work result achieved by a person in carrying out the tasks that are charged to him is based on skills, experience, and sincerity, and time [4].

Mangkunegara argues that "Performance is the result of work in the quality and quantity achieved by an employee in carrying out his duties and responsibilities given to him" [5].

Whereas, A. Anwar Prabu M. argues about performance, that: "Performance is the result of work in quality and quantity achieved by an employee in carrying out their duties in accordance with the responsibilities given to him" [6].

Performance can be interpreted as the performance of an employee's work towards the organization where he is sheltered and is a combination of ability and effort made to produce the best performance.

Based on the notions above, it can be stated that performance is the ability to realize the work ability of employees in accordance with the duties and responsibilities of the work they carry out. So the increase in employee performance is a process to improve work ability, work performance or work performance that can be done in various ways.

From the description above, the authors draw the conclusion that basically performance is the actual work achieved by a person both in quality and quantity (output) in the function of work or certain activities during a certain period of time from an individual or group in carrying out the duties and authorities given to him according to the applicable rules that are in accordance with the objectives and standards of the organization concerned.

An organization/institution is established of course with a certain purpose. While the goal itself cannot be fully achieved if the employee does not understand the purpose of the work he is doing. That is, the achievement of the objectives of each job carried out by employees will have a comprehensive impact on the goals of the organization / institution. Therefore, an employee must understand the performance indicators as part of understanding the final results of his work.

As for measuring performance according to Gomes are as follows [7]:

1) *Quantity of work / Job Worth*: The amount of work done in a specified time period.

2) *Quality of work*: The quality of work achieved is based on the conditions of conformity and readiness.

3) *Job knowledge*: Extensive knowledge of work and skills.

For more commonness, which is used as an indicator by the author, namely from the aspects of performance according to T.R Mitchel in Sondang P. Siagian, as follows [8]:

a) *Quality of work, which includes:*

- Work results obtained
- Suitability of work results with organizational goals
- Benefits of work

b) *On time-arriving (promptness), which includes:*

- Arrangement of work plan / work plan
- Accuracy of work plan with work results
- Timeliness in completing tasks

c) *Initiative, which includes:*

- Giving ideas / ideas in organization
- Actions taken to resolve the problems faced

d) *Capability, which includes:*

- Ability possessed
- Skills owned
- Ability to utilize resources or potential

e) *Communication (Communication), which includes:*

- Internal (in) organizational communication
- External communication (outside) of the organization
- Relations and cooperation in carrying out tasks

Based on the theories above it can be concluded that performance requires assessment indicators that are influenced by various factors, whether internal factors or external factors with various aspects that can be measured based on certain standards consisting of quantitative aspects and qualitative aspects that are useful to get feedback user needs to improve organization / institution specifically human resource management.

III. RESEARCH METHODS

The research method is used to achieve the research objectives effectively and efficiently, as stated by Sugiyono that: "The research method is the method used by researchers in using research data" [9]. The method used in this study is descriptive method with a quantitative approach. Descriptive method is the method used in research to analyze the events that occurred at the time of the study. The approach in this study uses a quantitative approach, namely an approach that records and analyzes the results of research data with statistics.

To obtain data that is accurate and relevant to the problem of the study, the authors use indirect communication techniques, namely through questionnaires that are arranged in

a written list in the form of questions or statements to obtain information from respondents. Forms of questionnaires distributed in the form of structured questionnaires are called closed questionnaires, where each statement is accompanied by alternative answers. Collecting data and information in this study in addition to questionnaires, researchers used literature studies to support existing data.

IV. RESULTS AND DISCUSSION

The results of the study show that the hypothesis shows "There is a positive contribution between the computer-based management information system to the performance of employees in the Office of the National Police Educational Center in Bandung". This can be seen from the results of data processing that shows the level of involvement between the variables X (Computer Based Management Information System) and Y variable (Employee Performance).

Based on the results of research conducted at the Office of the Indonesian Police Educational Center Bandung obtained correlation coefficient (relationship) variable X and variable Y is 0.697. These results are categorized as strong correlations of 0.600 - 0.799. With these results, the computer-based management information system has a positive contribution to employee performance.

Furthermore, to find out the significance of the correlation between variables X and variable Y by comparing the price of t_{count} with t_{table} . Based on the calculation, it is known that the price of $t_{count} > t_{table}$. Based on the calculation results obtained the price of t_{count} is 8.738, this price is consulted with t_{table} at $dk (n-2) = (83-2) = 81$ at 95% confidence level then t table 1.98. After knowing the price of t_{count} and table, it can be concluded that $t_{count} (8.738) > t_{table} (1.98)$, so it can be stated that there is a significant relationship between variables X and variable Y. This means that the correlation between variables of computer-based management information systems and employee performance can be generalized or applies to all respondents.

This relationship is confirmed by the results of the calculation of the Determination Coefficient (KD) obtained at 48.5%. This means that the variable X (Computer-Based Management Information System) contributes to variable Y (Employee Performance) of 48.5% and the remaining 51.5% is influenced by other variables that the author does not research.

Furthermore, at the level of functional relationship between variables X and variable Y obtained the regression equation $Y = 33.769 + 0.697X$. Thus, it can be concluded that if there is a change in one unit of variable X, it will be followed by variable Y of 0.697 units with the direction of positive change (additive). In other words, if the contribution of computer-based management information systems is improved, then the quality of employee performance will also increase by 0.697 in line with the large contribution of computer-based management information systems.

The connection between computer-based management information systems and employee performance can be viewed from the mechanism or procedure carried out by the SIM manager or the information service itself which consists of:

data collection, data processing, data storage, data organizing, retrieval and retrieval and presentation. In the work procedure of computer-based management information systems, of course there is no denying that there are good and some are not good, if the good ones clearly will support the performance of employees and vice versa if that is not good will hamper employee performance. Therefore, the best contribution from a computer-based management information system to employee performance is that which supports the achievement of organizational goals through optimal employee performance displayed by employees in the institution environment.

The function of the management information system itself is capable of providing accurate, complete, reliable and relevant information in carrying out management activities. As expressed by Moekijat explains that: "The function of information is to provide a possible basis for responding to selection to decision makers [2]. The function of information does not direct decision makers about what to do but reduces diversity and uncertainty to cause a good decision to be taken. Another important information function is to provide standards, size rules and decision rules for determining and disseminating signs of error and feedback in order to achieve control objectives.

The result of the data analysis calculation shows that the degree of computer-based management information system is very good, as well as the performance of employees at the Office of the Indonesian Police Educational Education Center Bandung. This proves that the presence of a computer will help the performance of employees and reduce the level of employee errors in work so that there is no repeat of the same work. In terms of time too, employees will feel helped by the existence of this computer technology. Employees can analyze existing data to make information faster.

V. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, it can be concluded that the research hypothesis shows that "there is a positive and significant contribution between the computer-based management information system to the performance of employees in the Office of the Indonesian Police Educational Center Bandung". In more detail the results of the study can be summarized as follows:

A. Computer Based Management Information System

Information is the result of data processing, but not all results from processing the data can be used as information. Data processing results that do not give meaning or meaning and are not beneficial to someone is not information for that person. Based on the results of the study using the calculation of *Weighted Mean Score (WMS)* regarding the general description of computer-based management information systems in the Office of the Indonesian Police Educational Center Bandung, it can be concluded that the computer-based management information system at the Bandung Police Education Office is relatively good, where the system computer-based management information when viewed from a point of view consisting of 1) *Hardware*, 2) *Software (software)*, 3) *Brainware (human resources)*, 4) *Database*

management, 5) Work procedures, 6) Network telecommunication.

Based on the findings of a computer-based management information system researcher, it has been fully implemented in the Office of the Indonesian Police Educational Center Office, this is indicated by the provision of computer components carried out by the institution that are sufficiently complete and adequate and in accordance with established standards. It's just that the most dominant one used by the Office of the Indonesian National Police Educational Service is the use of work procedures, while the telecommunications network aspect is still not maximal or not fully implemented.

From human resources, all employees have been able to use computers in the completion of work but there are still employees who have not fully worked using computers, there is a need for guidance to employees who will refer to computer-based performance.

B. Employee Performance

General description of employee performance in the Office of the National Police Educational Center Bandung when viewed from the five main sub-variables, namely 1) Quality of work (quality of work), 2) Promphines (timeliness), 3) Initiative (initiative), 4) Capability (Ability), 5) Communication is very good. However, the variable timeliness is still felt to be less optimal, where the variable has the smallest weight based on the results of the study using a trend analysis of *Weighted Mean Score (WMS)*.

Employee performance at the Office of the Indonesian National Police Educational Service Bandung is marked by employees who understand the purpose of the work and work plans that have been made by the institution, besides that employees are also able to utilize the appropriate facilities and infrastructure for the completion of the work. Employees at the Office of the Indonesian National Police Education Service are able to take advantage of the time in work and are able to carry out monitoring and control activities on the work done to be right on target and reduce the level of errors in work so that the repetition process does not occur. 3. Contribution of Computer-Based Management Information System to Employee Performance at the Office of the Indonesian Police Educational Center Bandung

Based on theoretical a study it has been revealed that in employee performance a computer-based management information system is needed that helps employees to create effective and efficient performance. Based on the results of research that has been carried out, it was found that the computer-based management information system on the performance of employees in the Office of the Indonesian Police Educational Center could be said to be strong and significant. Computer-based management information systems contribute to employee performance in addition to being influenced by other factors such as: leadership style, education level, compensation, motivation, organizational climate, communication, management, employee appraisal and others. Therefore, the computer-based management information system must be a concern among policy makers in the Office

of the Indonesian Police Educational Center Bandung, this is because if the computer-based management information system is optimized it will at least have an impact on the development of performance or quality of employees.

Basically the performance of employees is the result of work that has a strong relationship with organizational goals, customer satisfaction, and contributes to the economy. In the implementation of employee performance is not carried out by chance but one thing is needed to support this achievement as well as computer technology. In modern times like this, computer technology strongly supports employees in working, the computer also reduces the level of employee errors in work and makes the work feel lighter than employees do things manually or traditionally. Computers can also process data into information. The data that is processed into information is what is needed by employees in work, not least educational institutions such as the Bandung Police Educational Center that use information as the basis of every job.

Based on the results of research on the Contribution of Computer-Based Management Information System to Employee Performance in the Office of the Indonesian Police Educational Center, there are several recommendations that the researcher wants to convey as follows:

- Institutions should always update the software used for all fields in order to provide smoothness and ease of work, this is due to the development of computer-based management information systems and information technology that are growing faster.
- Institutions should improve the use and use of telecommunications networks, especially the internet, which can help complete the work of employees, so that it will be more effective and efficient.
- Institutions should conduct intensive training or training of employees, especially in the field of computer-based management information systems to improve the quality or performance of employees.

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