
| RESEARCH ARTICLE

The Effect of Hospital Management Information System Performance on Hospital Financial Reports Quality Moderated by Human Resources Competence: An Empirical Study at DKI Jakarta Province's X Hospital

Pramono, Adli

Universitas Mercu Buana, Jakarta, Indonesia

Corresponding Author: Pramono, **E-mail:** adli@mercubuana.ac.id

| ABSTRACT

This research is aimed at, first, observing the impacts of the hospital management information system on the financial reports quality of Hospital X. Second, observing the impacts of hospital management information system performance on the financial report quality at Hospital X as moderated by HR competence. The research applied the quantitative method. Three variables were applied to this study, namely independent variable, namely hospital management information system performance. The moderation variable applied was HR competence and the dependent variable applied to this study was Financial Report quality. Its population includes all accounting and IT unit staff with 82 samples. Structural Equation Modeling (SEM) data analysis technique was applied during the data analysis process, whereas for the data input process, the study used SmartPLS software. The research results show that Hospital Management Information System Performance has an impact on the Financial Report Quality and Hospital Management Information System Performance has no impact on Financial Report Quality as moderated by HR competence.

| KEYWORDS

Hospital Management Information System; Hospital Financial Report Quality; HR Competence.

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1. Introduction

Hospital management requires invariable, accurate, actual and safe, and proper information from a scientific and administrative point of view. The hospital management information system is supported by competent HR, including hardware and software acquisition and supporting management. Any available information system will assist hospital staff to serve the patients. In addition, by systemic information, technology update, managerial and business knowledge, all will collaborate to improve the functions of the information system itself. Functions of information systems will be more than an assisting tool but will be one of the hospital strategies to improve service quality to society that will later impact the excellence and be a competitive strategy for the hospital.

Based on Regulation of Ministry of Health No. 1171/MENKES/PER/VI/2011, any hospital in Indonesia starts applying a system for improving its services. Sufficient information system performance will improve the internal control of income (Muda and Ade, 2019).

Results of research conducted in PKU Muhammadiyah Hospital of Temanggung can be interpreted that variables having impacts on successful SIMRS implementation include technology variables, namely system quality, information quality, and service quality. Whereas from an HR point of view, user fulfillment has an impact on system implementation from the organization variable side, namely that structure has a high impact on the existing organizational environment. One significant factor for successful SIMRS implementation in PKU Muhammadiyah Hospital of Temanggung is motivated by managerial support to the SIMRS user as well as the availability of proper facilities in the hospital to use the SIMRS.

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Data of the research results show that understanding, skill, hardware, software, LAN, and method are related to management information systems ($p < 0.05$). Skill is the most controlling factor in a management information system. The hospital is expected to prepare continuous education and training programs on SIMRS within a relatively short time as well as requires its HRs to join such education/training programs so that the HR's skills will improve and the computer's memory being used will increase. At the same time, qualitative characteristic impacts of accounting information and internal control system on the local hospital's performance increased from year to year. It illustrated that qualitative characteristics of accounting information and internal control system produced a very high effect and contribution to the effort of improving local hospital's performance.

HR's skills, IT application, and internal control system had no impact on financial report quality in several hospitals. As a relatively big and modern hospital in the South Jakarta area, Hospital X has a management information system. This program is initially run 'by force'. It was especially run by department/finance department staff. Whereas, at the same time, generated financial reports did not present accountable and convincing liability and asset values. It was indicated by slow decision making by management on anything related to high non-collected accounts receivable, weak control of medical inventory, and slow decision making by management on anything related to medical device acquisition. Other phenomena were related to low financial report quality, namely those related to calculation mistakes in the program implementation, in which such conditions disturbed the process of financial report data update. It caused various transaction incompatibility with non-detailed report statements, minimum information on any procedure related to the stock card, drugs label, and other various report details related to inpatient service bills. A manual book system was unavailable, and such a condition impacted on journal's double posting mistakes. Such various mistakes and problems caused delayed financial report arrangement. The report could not be generated on time and its quality is at a minimum level. Such a condition became the background of this thesis writing, "The Effect of Hospital Management Information System Performance on Hospital Financial Reports Quality Moderated by Human Resources Competence.

2. Literature Review

2.1 Theory of Entity

According to Esch et al (2016), the organization is regarded as a unity or an independent economic business entity, acting for itself, and its position is separated from the owner or other parties investing in the organization and economic unity as well as being accounting focus or point of view. According to the theory, accounting and financial report making are a business unity, not the owner.

2.2 Hospital Management Information System Performance

SIMRS presents the organization's operating activities to management actors, so that planning, controlling, and strategic development can be conducted.

2.3 Financial Report Quality

In general, Financial Report Quality is a vital component to make decisions. An excellent Financial report may reduce any Asymmetry in arising information related to the agency. If the Financial Report is good, company information becomes good and information asymmetry will be low.

2.4 Competence

Najmi et al (2018) explain that competence means capability created through perception, emotional reaction, and intrinsic value according to any fields involved, in this case, the financial report related to statistical analysis on financial data calculation. Competence measurement according to Paltoglou et al (2019) includes, among others, as follows:

1. Capable to understand data analysis available in the financial report
 - a. Capable to analyze financial report data
 - b. Capable to interpret information on financial report data
2. Capable to interpret the meaning of probability value existing in various numerical information in the financial report
 - a. Capable to interpret numerical data in the financial report data
 - b. Capable to understand probability value from financial report data information
3. Capable to make objective decisions based on empirical data
 - a. Capable to make objective decisions based on data
 - b. Reading data as a consideration for making a decision
4. Capable to read various kinds of financial report journals including various statistical analysis
 - a. Capable to comprehend financial report journals

- b. Capable to analyze statistical data based on financial report journals
5. Capable to interpret numerical meaning in the financial report journals
 - a. Capable to interpret numerical meaning in the financial report journals
 - b. Capable to capture financial condition picture based on numbers in financial report journals
6. Capable to define correctness in any analyzed data properly
 - a. Capable to assess any errors found in financial journal data properly
 - b. Capable to conclude the correctness of financial report data journal results properly.

3. Research Methods

This research applied the quantitative method. The background of the problem for this research will be direct to explanatory research. This research consists of three variables, independent variables, namely hospital management information system performance, moderation variable, namely HR competence, and dependent variable, namely financial report quality. The population includes all accounting and IT unit staff. Saturated samples are used for this research. Samples of this research consist of 82 samples. The structural Equation Modeling (SEM) data analysis technique was applied to this research using SmartPLS software for its data processing.

4. Results and Discussions

4.1 Description of Research Data

This research has two objectives, namely observing the impacts of hospital management information system performance on the financial report quality of Hospital X. Second, observing the impacts of hospital management information system performance on the financial report quality at Hospital X as moderated by HR competence. In this research, respondents are male and female working as IT and financial or accounting staff in hospital X in Jakarta. This research involved 82 respondents who completed the questionnaires. Source person profiles of this research are divided into several classifications: gender, age, last education, and length of work.

4.2 Research Results and Discussion

4.2.1 Instrument Test

4.2.1.1 Partial Least Square (PLS) Test

Two tests were applied in Partial Least Square (PLS). The first one is the outer model test to define the validity and reliability of measuring tools in this research. The second one is the inner model test to define the impact level of independent variables on dependent variables according to the research topic. There are three phases followed to conduct the outer model test, namely convergent validity, discriminant validity, and composite reliability. The inner model test was conducted by using the R-Square test (Ghozali, 2016).

4.2.2 Outer Model Test

The outer model test will be used to conduct a validity test and reliability test. The validity test includes a convergent validity test and a discriminant validity test. Whereas the reliability test will include composite reliability.

4.2.3 Convergent Validity

The first phase of the outer model test is convergent validity. Data processing results of the convergent validity test can be found through the loading value. Through such loading value, data validity can be defined to measure indicator preciseness. After valid declaration, the results of the measurement can be used for further analysis in this study. The indicator will be regarded as valid if the loading value > 0.70 . However, according to Chin (1998) in Ghozali (2016), if the loading value shows $0.50 - 0.60$, the parameter is still acceptable.

For the loading value of each parameter for respective variables, namely hospital management information system performance, HR competence, and financial report quality, the outer loading factor value is more than 0.50 , therefore, the parameter can be declared as valid for its latent variable meter, meaning that the applied parameter confirmed with the research topic. Any construct parameter is said to meet convergent validity if its loading value is > 0.70 whereas if the loading value is > 0.50 or > 0.6 , it is said to be acceptable (Chin, 1998), in which it's used to measure latent variable.

4.2.4 Discriminant Validity

Discriminant validity is the second phase of the outer model test applied to find out parameter conformity based on the cross-loading result. Parameter results are said to be valid if the cross-loading value of any construct is higher than other constructs

(Ghozali, 2016). Valid intended in this test indicates that the applied indicator is good. Whereas cross-loading value results are as follows:

Cross-loading value results for each topic, if they are compared with other topics, they have a higher value so that those items can be declared as correct. Therefore, no needs to remove or discard any item. Valid indicates that the applied measuring tools for this research have been confirmed, and the data can be used for further testing. The last method possible to apply for assessing discriminant validity is by viewing the Average Variance Extraced ($\sqrt{\lambda}$) value. Every construct can be regarded as valid if the AVE value > 0.50 . On the contrary, if the AVE value < 0.50 , it is regarded as invalid (Ghozali, 2016).

Average Variance Extraced (AVE) value resulted from each variable include hospital management information system, HR competence, and financial report quality were applied to find out the correlation of respective constructs. AVE results of the four topics have a value of more than 0.50. Therefore, based on such results, it was found that all variables can be declared valid, meaning that according to the respondents' answers passed the validity test.

4.2.5 Composite Reliability

Composite reliability is the last phase in the outer model test to measure the reliability of any construct. Reliability measurement was applied to find out the consistency of any applied constructs. If the composite reliability value > 0.70 , the construct passed the test. On the contrary, if the value < 0.70 , the construct did not pass the test (Ghozali, 2016). Whereas composite reliability values were shown in the following table:

Declaring all composite reliability values > 0.70 indicates that all variables can be declared reliable. Therefore, applied measuring tools were reliable due to their consistency. The reliability test for any construct can also be declared from the Cronbach alpha value in Table 9. If Cronbach alpha value > 0.70 , the construct passed the test (Ghozali, 2016).

Table 9 shows the results of the Cronbach alpha value that was basically used to support and strengthen the reliability test in the PLS method, hospital management information system performance, HR competence, and financial report quality can be declared reliable since the Cronbach alpha value is higher than 0.70. Therefore, it can be said that the indicators applied to this research are reliable and trusted for their accuracy.

4.2.6 Goodness of Inner Model Evaluation

In order to find out the endogene variable capability value for describing exogene variable variety, the Goodness of Inner Model was applied. Based on the results of R-squares Y Financial Report Quality has values of 0.883 or 88.3%. It shows varied hospital management information system performance variable*, HR competence, and hospital management information system performance moderation* HR competence may impact Financial Report Quality at 88.3%.

4.3 Hypothesis Test

In order to follow up temporary test on the association of exogene variable and moderation against endogene, the following conclusions can be made:

1. Hospital Management Information System Performance has impact(s) on Financial Report Quality
Based on the test results, it is found that the t-statistic value for Hospital Management Information System Performance has an impact on the excellence of financial reports at 3,170 with a coefficient value of 0.474 and a significant p-value at 0.002. Test results show that t-statistic value > 1.96 and p-value < 0.05 . Therefore, it can be interpreted that Hospital Management Information System Performance has a positive impact on the excellence of financial reports.
2. Hospital Management Information System Performance has an impact on the Quality of Financial Report as moderated by HR's capability.
Based on the test results, it is found that the t-statistic value for Hospital Management Information System Performance has an impact on the excellence of Financial Report as moderated by HR's excellence at 1,513 with a coefficient value of -0.047 and significant p-value at 0.131. Test results show that t-statistic < 1.96 and p-value > 0.05 . Therefore, it can be interpreted that the Hospital Management Information System Performance has no impact on the excellence of financial reports as moderated by HR's competence.

5. Discussion

5.1 Hospital Management Information System Performance has positive impacts on Financial Report Quality.

Based on the test results, it is found that the t-statistic value for Hospital Management Information System Performance has an impact on Financial Report Quality at 3,170 with a coefficient value of 0.474 and a significant value of p-value at 0.002. Test results show that t-statistic value > 1.96 and p-value < 0.05 . Hospital Management Information System Performance has a high impact

on Financial Report Quality as shown by the values. Hospital management information must have complete, detailed information, and an easy-to-apply system, especially that related to financial recording systems (Marsdenia, 2016). Field facts reveal that the applied management information system in relation to resulted financial report has not presented accountable and convincing asset and liability values. It was indicated by slow decision making by management on anything related to high non-collected accounts receivable, weak control of medical inventory, and slow decision making by management on anything related to medical device acquisition. Low financial report quality, namely those related to calculation mistakes in the program implementation, in which such conditions disturbed the process of financial report data update. The impacts are transaction incompatibility with non-detailed report statements, minimum information on any procedure related to the stock card, drugs label, and other various report details related to inpatient service bills. The impact of the manual book system usage is the journal's double posting mistake. Such various mistakes and problems caused delayed financial report arrangement. The report could not be generated on time and its quality is at a minimum level. Financial report quality needs support for various reasons and different objectives. Hospital management information system performance is basically a partial factor showing financial report quality realization (Gorla, Toni, and Betty, 2010). Results of the research indicate that better hospital management information system performance will imply better hospital financial report quality.

5.2 Hospital Management Information System Performance has impacts on Financial Report Quality as Moderated by HR Competence

Based on the research results, it is found that the t-statistic value of Hospital Management Information System Performance impacted Financial Report Quality moderated by HR Competence at 1,513 with coefficient value -0.047 and significant value of p-value 0.131. Test results show that $t\text{-statistic} < 1.96$ and $p\text{-value} > 0.05$. It can be interpreted that Hospital Management Information System Performance has no impact on Financial Report Quality as Moderated by HR Competence. HR competence is required to support a special role related to any work performed. According to (Muda and Ade, 2019), it is described that personal competence and characteristics as employees arise in the form of knowledge, competence, and ethics, where, personally, good competence as an employee will run his/her jobs in professional, effective, and efficient ways. Any employee with good understanding, abilities, and skills is considered to be capable to control his/her attitude, with a good mindset and supported by high understanding, therefore, various problems related to obstacles on productivity and performance can be resolved in the most effective and effective ways. HR competence is related to management information system performance for assisting financial report quality will facilitate individuals on completing provided works (Lin, Ing, Pey, and Tsai, 2012) will improve competence, skills, and personal potential. It also impacted personal competence improvement, self and skill improvement, especially HR competence.

6. Conclusion

This study aimed at observing the impacts of the hospital management information system on the financial reports quality of Hospital X and observing the impacts of hospital management information system performance on the financial report quality at Hospital X as moderated by HR competence. The findings of the study revealed that Hospital Management Information System Performance has a positive impact on Financial Report Quality. Based on the tests mentioned in the above table, it is found that the t-statistic value of Hospital Management Information System Performance had an impact on Financial Report Quality at 3,170 with a coefficient value of 0.474 and significant value of p-value 0.002. Such testing results show that $t\text{-statistic value} > 1.96$ and $p\text{-value} < 0.05$. It can be interpreted that Hospital Management Information System Performance has a positive impact on Financial Report Quality. . Hospital Management Information System Performance must have complete, detailed information, easy-to-apply system, especially that related to the financial recording system (Marsdenia, 2016).

Moreover, the results of the study showed that the Hospital Management Information System Performance has no impact on Financial Report Quality as moderated by HR Competence. Based on testings mentioned in the above table, it is found that the t-statistic value of Hospital Management Information System Performance had an impact on Financial Report Quality moderated by HR Competence at 1,513 with a coefficient value of -0.047 and significant value of p-value 0.131. Test results show that $t\text{-statistic value} < 1.96$ and $p\text{-value} > 0.05$. It can be interpreted that Hospital Management Information System Performance has no impact on Financial Report Quality as moderated by HR competence. It shows that employees have a good understanding but available management information system performance is not yet maximal so HR's competence is unable to moderate for generating impacts on the financial report quality maximally.

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