



THE FRAMEWORK IN RISK MANAGEMENT PROCESS: LESSON LEARNED FROM HOSPITAL DURING PANDEMIC

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ABSTRACT

The pandemic situation poses great challenges for health care facilities such as rapidly changing hospitals in meeting the demands of infrastructure and operations. In addition to the need for adaptation related to the services provided, hospitals must be able to reduce the number of Covid-19 deaths as a top priority for health authorities. Uncertain conditions lead to the emergence of risks that cause losses so it is important to have risk management in hospitals. This study was conducted to review risk management in hospitals in Semarang City that already have a framework for dealing with the COVID-19 pandemic and assess the impact of implementing the framework to the risk management process. This study is a cross-sectional study to see the relationship between the application of a risk management framework to the implementation of the Covid-19 risk management process in hospitals. The population in this study is all regulatory documents and reports on the implementation of the COVID-19 risk management process in hospitals in Semarang City in the period January 2020 to December 2021. Data is collected from documents and recording data in hospital related to regulations and risk management assessment instrument. Data were analyzed using Partial Least Square (PLS) software with SmartPLS 3.0 to test the hypothesis by looking at the probability value and its t-statistics. The study shows that the framework has a positive effect on the implementation of the risk management process in hospitals (T-Statistic > 1.96, p value < 0.05). The stronger the implementation of the COVID-19 risk management framework, the more positive the implementation of the COVID-19 risk management process will be.

Keywords: covid; hospital; framework; pandemic; risk management

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INTRODUCTION

Hospital is a health service institution that provides complete individual health services and provides inpatient, outpatient, and emergency services (Indonesia, 2009). As a workplace that has a high risk related to the safety and health of human resources, patients, patient companions, visitors, and the environment, hospitals face major challenges, especially in emergency public health situations (Indonesia, 2016; Pujiyanto et al., 2022). Since the COVID-19 pandemic in 2020, major challenges and impacts of health services in hospitals throughout Indonesia include the high number of COVID-19 cases, limited facilities and infrastructure, the high incidence of COVID-19 transmission in health workers, delays in essential services both related to national priority programs or specific services related to the

vision, mission in health care facilities. Especially for health workers, the risks experienced are the risk of exposure to viruses, work pressure, stigma, psychological and emotional disorders, illness and even death (Ferdosi et al., 2020; Yuliani & Patria, 2022).

The COVID-19 public health emergency requires health facilities to rapidly change in order to meet the demands of infrastructure and operations. Adaptations related to cancellation of elective procedures, expedited discharge planning, and expansion of bed and surge capacity through re-use of non-traditional spaces into medical and intensive care units, expansion of telemedical capabilities, capacity building of staff through emergency credentialing of volunteers and temporary personnel, and focus on programs employee support (Tolentino et al., 2021). Hospitals must be able to reduce the number of COVID-19 deaths as a top priority for health authorities (Ferdosi et al., 2020).

The expected roles in all health facilities in the era of the COVID-19 pandemic include slowing or stopping the rate of transmission/contagion, providing optimal health services for critical case patients, minimizing the impact of the COVID-19 pandemic, social services, economic activities, and other sector activities (Keputusan Menteri Kesehatan Republik Indonesia, 2020). The transition from a pandemic to an endemic situation in Indonesia is starting to be shown by the many trends in pandemic control indicators that continue to show positive things, as well as various steps to change from pandemic to endemic. Hospital leadership discusses and determines the best quality and timing indicators for endemic conditions. COVID-19 cases are still there and almost do not interfere with daily activities, social life, religious life, and tourism (Lock-Wah-hoon et al., 2020; Zegers et al., 2022).

Services for COVID-19 patients at 26 hospitals in Semarang City continue to run in accordance with the procedures for treating COVID-19 patients while minimizing risk. Risk management during a public health emergency can be a task for any health care risk manager (Olii et al., 2019; Rachmawati et al., 2021). However, all stakeholders in the hospital participate in improving risk management as a commitment to risk management and minimizing losses that may be received by stakeholders who play an important role in the health care industry (Jafari et al., 2018; Melo et al., 2021). Various adjustments were made by the hospital in stages, such as the provision of special isolation rooms for COVID-19 in inpatients, special COVID-19 emergency units (IGD), special isolation rooms for COVID-19 in intensive care rooms, a zoning system, special lanes for patient transportation. COVID-19, special operating rooms for patients with COVID-19, entry screening for patients, visitors, the public, and employees who enter the hospital area, and telemedicine services for outpatients (R. P. Silva et al., 2020).

Risk is the possibility of an event having a negative impact on the achievement of organizational goals. Uncertain conditions lead to the emergence of risks that cause losses so it is important to have risk management in hospitals (Arab et al., 2019). The risk management planned by the facility and safety management in each hospital unit can increase the economic competitiveness of the organization and its members (Nabilatul Fanny & Anindiya Soviani, 2020; Priyarsono & Munawar, 2020; Suroso & Fakhrozi, 2018). Eliminate or minimize the impact on patients, employees, visitors and hospitals through risk management starting from the process of identifying, assessing, and prioritizing risks (Joint Commission International, 2021). Risk management can be fully achieved if risk management is integrated with the strategic planning process. Process is a systematic and interrelated risk management activity (Heinzova et al., 2021).

Given the importance of risk management in hospitals, researchers are interested in analyzing the implementation of COVID-19 risk management in hospitals in Semarang. This study was conducted to review risk management in hospitals in Semarang City that already have a framework for dealing with the COVID-19 pandemic and to assess the effect of implementing this framework on the risk management process. COVID-19 risk management is deemed necessary because in the period January 2020 to December 2021 there will be a COVID-19 pandemic where hospitals need to adapt and make changes quickly both in human resources, infrastructure, finance, personal protective equipment (PPE), regulations from leadership to prevent and control the spread of infection in the hospital environment, and it is hoped that the results of this study can provide an overview and become a reference in the endemic era of COVID-19 in hospitals. This study aims to analyze relationship between the application of a risk management framework to the implementation of the Covid-19 risk management process in hospitals.

METHOD

This study is a cross-sectional study to see the relationship between the application of a risk management framework to the implementation of the Covid-19 risk management process in hospitals. The population in this study were all regulatory documents and reports on the implementation of the COVID-19 risk management process in hospitals in Semarang City in the period January 2020 to December 2021. The data used in this research is secondary data. The secondary data in this study were taken from regulatory documents and reports on the COVID-19 risk management process for the January 2020 to December 2021 period, regulations related to COVID-19 risk management. The instrument in the form of a check list for assessing the risk management process is used to strengthen the data taken.

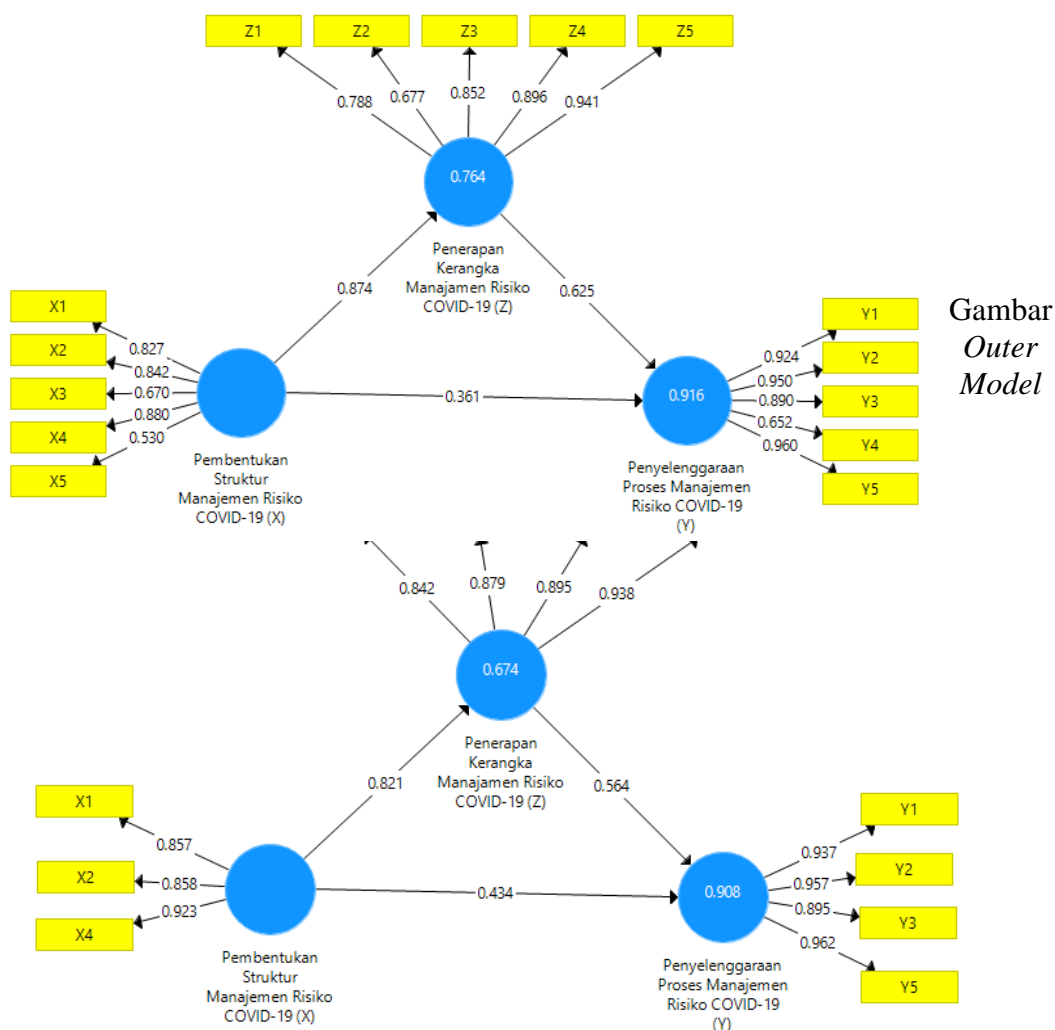
Data collection is done by studying documents and recording data related to COVID-19. Researchers view and record regulatory documents and reports on the COVID-19 risk management process for the 2020 and 2021 periods, regulations related to COVID-19 risk management, and data according to the COVID-19 risk management assessment instrument as data reinforcement. The research data were analyzed using Partial Least Square (PLS) software with SmartPLS 3.0. Hypothesis testing is done by looking at the probability value and its t-statistics. Hypothesis testing uses statistical values, so for alpha 5% the t-statistic value used is 1.96. The criteria for accepting or rejecting the hypothesis are that H_a is accepted and H_o is rejected when the t-statistic > 1.96 . To reject or accept the hypothesis using probability then H_a is accepted if the p value < 0.05 . The study was declared to have passed the ethical review by the Health Research Ethics Committee of RS Telogorejo Semarang No.10270/TIU.710 /KEPK/K/2022.

RESULTS

Test of validity and reliability

The outer model evaluation data processing using SmartPLS 3.0 is presented in four types, namely convergent validity, discriminant validity, composite reliability, and cronbach alpha. The scheme of the PLS program is shown in Figure 1 and Figure 2.

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Picture 2. Inner Model

Convergent validity test is carried out to test the value of the outer loading or loading factor. Table 1 shows that there are still several indicators on the variables of the implementation of the framework and the implementation of the risk management process that are not feasible or invalid. Further research and analysis is used (outer loading value < 0.7) on the Z2 indicator (Covid-19 risk management work plan) and Y4 (High and very high COVID-19 risk management). Meanwhile, other indicators on the variables of the implementation of the framework that are still worthy of further research are the performance indicators and profile of COVID-19 risk management, implementation of the COVID-19 risk management framework design, monitoring and review of the COVID-19 risk management framework, and continuous improvement. against the COVID-19 risk management framework (outer loading value > 0.7). While the indicators on the risk management process variable (outer loading value > 0.7) are valid, namely communication and consultation about COVID-19, setting COVID-19 risk criteria, COVID-19 risk assessment, and monitoring and reviewing the COVID-19 risk management process.

Tabel 1.
Convergent Validity Test Results

Variabel	Indikator	Outer Loading
Implementation of the COVID-19 risk management framework(Z)	Z1	0.788
	Z2	0.677
	Z3	0.852
	Z4	0.896
	Z5	0.941
Implementation of the COVID-19 Risk Management Process (Y)	Y1	0.924
	Y2	0.950
	Y3	0.890
	Y4	0.652
	Y5	0.960

The discriminant validity test in Table 2 shows that each variable has good discriminant validity (AVE > 0,5).

Table 2.
Discriminant Validity Test

Variabel	AVE
Implementation of the COVID-19 risk management framework (Z)	0.790
Implementation of the COVID-19 Risk Management Process (Y)	0.880

In addition, the level of reliability of all variables is also high (composite reliability and Cronbach alpha values > 0.7) as shown in Table 3 and Table 4.

Tabel 3.
Composite Reliability

Variabel	Composite Reliability	Cronbach Alpha
Implementation of the COVID-19 risk management framework (Z)	0.938	0.911
Implementation of the COVID-19 Risk Management Process (Y)	0.967	0.954

Correlation test

The Inner Model (Structural Model) in this study is shown through the results of the path coefficient test, the goodness of fit test and hypothesis testing. Path coefficient evaluation is used to show how strong the effect or influence of the independent variable on the dependent variable. While the coefficient determination (R-Square) is used to measure how much the endogenous variables are influenced by other variables. Chin said the results of R2 of 0.67 and above for endogenous latent variables in the structural model indicate the effect of exogenous variables (which affect) on endogenous variables (which are affected) is included in the good category. Meanwhile, if the result is 0.33 – 0.67 then it is included in the medium category, and if the result is 0.19 – 0.33 then it is included in the weak category.

Table 4.
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	Implementation of the COVID-19 Risk Management Process (Y)
Implementation of the COVID-19 risk management framework (Z)	0.564

Based on the inner model scheme that has been shown in Table 4, the effect of the implementation of the COVID-19 risk management framework (Z) on the implementation of the COVID-19 risk management process (Y) in the good category and the moderate category (path coefficient 0.564). A positive number indicates that the greater the value of the path coefficient on one independent variable on the dependent variable, the stronger the influence between the independent variables on the dependent variable.

Table 5.
T-Statistics dan Nilai P-Values

	Original Sample (O)	T Statistics ((O/STDEV))	P Values
Implementation of the COVID-19 risk management framework (Z) -> Implementation of the COVID-19 risk management framework (Y)	0.565	4.135	0.000

Based on the results of testing the variable for the implementation of the COVID-19 risk management process (Y), the original sample estimate value is 0.565 with a t-statistic value of 4.135 > 1.96 t-table, which means that the variable application of the COVID-19 risk management framework (Z) has an effect on positive on the implementation of the COVID-19 risk management process (Y) with a significance below 5% (significant).

DISCUSSION

The success of risk management depends on the effectiveness of the management framework that provides the organizational foundation. The framework helps manage risk effectively through the application of risk management processes at various levels and organizational contexts. The purpose of the risk management framework is to ensure that risk information derived from a risk management process is adequately reported and used as a basis for decision making, fulfillment of accountability at all relevant levels of the organization (Beran et al., 2021; M. Z. Silva & Fernandes, 2019). The implementation of the COVID-19 risk management framework has a positive effect on the implementation of the COVID-19 risk management process. This shows that the stronger the implementation of the COVID-19 risk management framework, the more positive the implementation of the COVID-19 risk management process will be. Penerapan kerangka kerja berpengaruh terhadap penyelenggaraan proses manajemen risiko COVID-19 dengan kekuatan sedang. Hal ini sebagaimana penelitian sebelumnya bahwa kerangka kerja manajemen risiko berpengaruh terhadap proses manajemen risiko (Ferdosi et al., 2020; Iswajuni, Soengeng Soetedjo, 2018).

Integrated risk management consists of the identification, analysis, evaluation and management of all potential risks and is applied in all units/sections/programs/activities starting from the preparation of strategic plans, preparation and implementation of programs and budgets, accountability and monitoring and evaluation and reporting. The risk management process is a continuous, systematic, logical, and measurable process that is used to manage risk in the agency (R.Indonesia, 2019). Hospitals need risk management to anticipate, deal with all forms of risk effectively and efficiently, improve compliance with hospital regulations, make the basis for every decision making and planning, and improve the achievement of goals and performance (Nabilatul Fanny & Anindiya Soviani, 2020).

The success of risk management depends on the effectiveness of the management framework that provides the organizational foundation. The framework helps manage risk effectively through the application of risk management processes at various levels and organizational contexts. The purpose of the risk management framework is to ensure that risk information derived from a risk management process is adequately reported and used as a basis for decision making, fulfillment of accountability at all relevant levels of the organization (Australian Council on Healthcare Standards, 2013).

The variable implementation of the COVID-19 risk management framework has an identified indicator that has a weak value, namely the indicator of the COVID-19 risk management work design. This is because the spread of COVID-19 cases is unpredictable and spreads very quickly, making it difficult for medical staff to make a COVID-19 risk management work plan. In addition, changes in regulations for handling COVID-19 at the central level have also undergone very rapid changes. This has an impact on changes to regulations for handling COVID-19 at the hospital level, which must follow national policies. Inconsistency in determining COVID-19 policies at the central and regional levels affects the implementation of policies at each hospital.

The implementation of the COVID-19 risk management process is the stage of risk analysis in obtaining possible risks that at any time can disrupt performance and disrupt business processes, so that nursing organization leaders are needed who have the ability to plan, implement and evaluate good risk management. Nursing managers must be able to manage a health service program, make program plans, direct, implement programs and conduct evaluations (Dedi, 2020). The implementation of the COVID-19 risk management framework can be used as a training tool to guide effective risk assessment as well as a tool to assess non-clinical risks of healthcare organizations, so risk management must be integrated at every stage (Ferdosi et al., 2020).

CONCLUSION

The risk management process is needed in improving health services in hospitals in pandemic situations. A framework is needed for the implementation of an optimal risk management process. The stronger the implementation of the COVID-19 risk management framework, the more positive the implementation of the COVID-19 risk management process will be.

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