Analysis of Risk Management Cycle on Capitation Mechanism at First Level Healthcare Facilities in East Java

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Abstract

The implementation of risk management is an essential function in an organization to control risk. Based on the preliminary research that has been carried out, only 4.2% of FLHF in East Java implemented the complete risk management process, starting from establishing context to evaluating risks. Modifications of risk management cycle implementation are made by reviewing the opinion of Carroll (2001) and ISO 31000:2009. This research aims to analyze the influence between the stages of implementing modified risk management based at 95 FLHF in East Java. The results show that each stage of the capitation mechanism risk management has a strong significant influence on each other. The results provide recommendation that FLHF should improve the understanding and awareness of the risks and expected to be able to apply risk management cycle as a whole.

Keywords: *risk management cycle, capitation mechanism, first level healthcare facilities*

Introduction

The implementation of risk management is an essential function in an organization to control risk. This function will reduce the negative impact that may arise from various activities carried out by the organization. This function includes carrying out assessments and determining efficient ways to control risk.(1)(2)(3)(4)(5)(6) The implementation of risk management includes two major stages that are connected, namely the risk identification and analysis stage as well as the handling of such risks. Carrol (2001) describes the relationship between these two stages with the risk management process structure. The risk management process structure explains that failure in risk management can result in decreases control over losses that may occur.(3)

Risk is a possibility of an unwanted loss with a certain severity. The existence of a severity level associated with the risk allows analysis and prevention of the risk. The element of uncertainty in risk requires effective control measures in order to reduce the negative impacts that may occur. Therefore, a management concept is formed to control risk, known as risk management.(2)(7)(8) Based on ISO 31000:2009, the risk management process has five main parts, namely: (a) communication and consultation, (b) establish context; (c) risk assessment (identification, analysis, and evaluation) (d) risk management and (e) monitoring as well as review. Those standards state that every part is a systematic application of management policies, procedures, and evaluation. (6)

First Level Health Facilities (FLHF) according to the Minister of Health Regulation (Permenkes) No. 71 of 2013 (9) consists of community health centre (Puskesmas), primary clinic (pratama clinic), class D hospital, and private dentist practice. FLHF is an

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institution that acts as the earliest health service provider (PPK). As an organization engaged in the health sector, FLHF certainly cannot avoid risks. Therefore, FLHF urgently needs the implementation of risk management..

Since 2014, Indonesia has implemented the National Health Insurance (JKN) policy. FLHF, in collaboration with Healthcare and Social Security Agency (BPJS Kesehatan), will act as gatekeepers in the program and could face risks that need to be managed. The capitation mechanism is a payment method used in JKN, which is implemented in Indonesia by adjusting a separate policy. Among the various risks faced, it is deemed necessary to analyze health services in the FLHF from the capitation mechanism approach as a payment method in FLHF.

The number of FLHFs working with BPJS Kesehatan throughout Indonesia until July 2020 is more than 27.000 FLHFs. In East Java, the number of FLHF who has worked with BPJS Kesehatan amounted to around 2.400 FLHFs.(10) Total FLHF cooperated with BPJS Kesehatan in East Java reached 11,4% out of the total FLHF in Indonesia. As many as 38.9% consisted of Puskesmas, and the rest consisted of individual practice and Pratama clinics. Based on the preliminary research that has been carried out, out of the total number of FLHFs in East Java, only 4.2 % of FLHFs implemented the overall implementation of risk management, starting from establishing the context to evaluating risks.

Taking a statement from ISO 31000:2009(6) regarding the risk management process, this study then considers modifying the risk management process. Modifications are made by reviewing the opinion of Carroll (2001)(3) regarding the two stages in the process of implementing risk management and ISO 31000:2009 regarding the five main parts of risk management which are then adjusted to its application in FLHF. In conclusion, the risk management cycle in FLHF can be simplified into five components: (a) establish context; (b) risk identification; (c) risk analysis; (d) risk treatment, and (e) risk evaluation.

Establish context means determining the risk context of the capitation mechanism through socialization that affects the achievement of organizational goals. Risk identification is the study of potential sources of events and triggers that may cause harm to the organization due to the capitation mechanism. Risk analysis is the implementation of an investigation regarding possible causes, severity, urgency, and seriousness of losses related to the risks of the identified capitation mechanism. Risk treatment is the management of potential events that may result in organization losses due to the capitation mechanism. Risk evaluation can be interpreted as the implementation of activities to assess the management of events that may result in organization losses due to the capitation mechanism.

The modification results are considered to be more representative of the actual risk management cycle. Several essential points that make this modification different from existing concepts are found in the risk analysis and risk evaluation stages. In the risk analysis stage, there is a risk evaluation process in which risk is evaluated, so that the risk evaluation stage does not evaluate risk anymore. The risk evaluation stage is used to evaluate the overall risk management cycle. With the overall evaluation, it can be seen that the stages are still less than optimal in implementation. This research aims to analyze the influence between the stages of implementing modified risk management based on a combination of two statements.(3)(6) Modification of risk management implementation stages has been adjusted by its application in FLHF (Puskesmas and Pratama clinic) in collaboration with BPJS Kesehatan, especially in East Java Province.

Method

This research is an observational study with a cross-sectional approach using primary data from FLHF in East Java Province in collaboration with BPJS Kesehatan. The sampling method used was proportional stratified random sampling. The sample size after proportioning by type of FLHF has obtained as many as 54 community health centres and 28 primary clinics. Large sample proportionally distributed in districts or cities selected based on the number FLHF cooperation with BPJS Kesehatan. The results of the data collection obtained 95 FLHFs.

Research respondents were FLHF leaders and staff who were involved in the management of capitation funds and patient care for JKN participants. The minimum number of respondents for each FLHF was three people (according to FLHF

conditions) consisting of 1 (one) leader and 2 (two) staff who are the key persons in the organization. The questionnaire used in data collection is the risk management implementation questionnaire. The assessment is carried out on a scale ranging from 1 (never implementing) to 5 (always implementing). The establish context variable was represented by 17 statements, risk identification variable 23 statements, risk analysis variable 22 statements, and risk treatment and risk evaluation variable 24 statements. In this statement, the risk elements studied include financial, legal, social and performance aspects (performance, time, physical).

Results and Discussion

The implementation of capitation mechanism risk management in FLHF in this research consisted of five stages, namely establish context, risk identification, risk analysis, risk treatment, and risk evaluation. The results of research related to the implementation of capitation mechanism risk management are shown in Table 1.

Table 1. Distribution of Mean, Standard of Deviation, and Normality Test Score of Capitation Mechanism Risk Management Implementation at FLHF in 4 Districts and Cities in East Java 2019

No	The implementation of capitation mechanism risk management	n	Score					Annotation
			Mean	SD	Min	Max	p	
1	Establish Context	95	63,51	13,33	23	85	0,518	Normally distributed
2	Risk Identification	95	94,76	13,29	65	120	0,280	Normally distributed
3	Risk Analysis	95	87,64	14,12	57	115	0,797	Normally distributed
4	Risk Treatment	95	95,88	15,45	57	125	0,585	Normally distributed
5	Risk Evaluation	95	96,06	15,99	52	125	0,586	Normally distributed
Total score		95	437,85	67,33	297	570	0,630	Normally distributed
Factor analysis		95	0,001	1,00	-2,11	1,96	0,654	Normally distributed

Based on Table 1, it is known that all measurement data are normally distributed. The result of the factor analysis from the total score of all sub-variables is the score that will be used for the frequency analysis of the risk management implementation intensity. The scores obtained are then grouped to make it easier to identify the intensity of risk management implementation in FLHF. Four groups of implementation of risk management intensity were obtained, which are very low, low, high, and very high. The results of the division of the capitation mechanism risk management implementation intensity by FLHF type can be seen in Table 2.

Table 2. Frequency Distribution of Risk Management Implementation Intensity by Type of FLHF in 4 Districts and Cities in East Java 2019

No	FLHF Type	Very Low		Low		High		Very High		Total	
		n	%	n	%	n	%	n	%	n	%
1	Puskesmas	5	7,7%	24	36,9%	19	29,2%	17	26,2%	65	68,4%
2	Pratama clinics	7	23.3%	12	40,0%	6	20,0%	5	16,7%	30	31,6%
Total		12	12,6%	36	37,9%	25	26,3%	22	23,2%	95	100,0%

The analysis result shows that in general, FLHF has not fully implemented the capitation mechanism risk management correctly. This result can be concluded from the number of FLHF that have implemented risk management with low and very low intensity, namely 48 FLHF (50,5%). This amount is slightly greater than FLHF that have implemented risk management with high and very high intensity (49,5%).

Meanwhile, based on the type of FLHF, risk management implementation with high and very high intensity is proportionally greater in Puskesmas (55,4%) rather than in Pratama clinics (36,7%). Organizational leaders must be able to become "system thinkers" who demand in-depth analysis of security issues, replace punitive reactions to mistakes to be open and proactive in dealing with any risks. So it is hoped that there will be an opportunity to build a safer health organization.(11)

Furthermore, a continuation statistical analysis was carried out that observed the influence between stages of the capitation mechanism risk management implementation at FLHF in 4 districts and cities in East Java. The results of the statistical analysis can be seen in Table 3.

Tabel 3. Statitical Analysis of The Capitation Mechanism Risk Management Stages at FLHF in East Java 2019

No	Independent variables	Dependent variables	B	b	p	R2	Annotation
1	Establish Context	Risk Identification	0,667	0,669	0,001	0,45	Significant
2	Risk Identification	Risk Analysis	0,986	0,928	0,001	0,86	Significant
3	Risk Analysis	Risk Treatment	1,062	0,971	0,001	0,94	Significant
4	Risk Treatment	Risk Evaluation	1,013	0,979	0,001	0,96	Significant
5	Risk Evaluation	Establish Context	0,572	0,687	0,001	0,47	Significant

After the statistical analysis has been done, it was found that all stages of risk management cycle influence each other. This result is consistent with research by Malilay, et al. (2014) on the role of applied epidemiology methods in disaster management cycle. In said research, it is stated that there are three stages of the disaster management cycle, namely predisaster, disaster and post-disaster. The three stages are interconnected in their implementation. If one stage is not appropriately implemented, it will have an impact on the other stages. (12)

Other research by Evans, Dalkir, dan Bidian (2014) also stated the same thing in a different field, namely knowledge management cycle (KMC). KMC consists of 7 phases, namely identify, store, share, use, learn, improve, and create. The 7 phases are interrelated in their utilization and are grouped into the KMC model.(13) Research by Morita, Flynn, dan Ochiai (2011) on the strategic management cycle, also stated the same thing. The strategic management cycle consists of 4 stages, namely organizational visionary planning, formulating strategy, operations and practice, coordination and storing of practices. The success of the strategic management cycle is a function of how well each stage is carried out. An organization will survive and grow when management cycles are implemented effectively. (14)

Another research by Jorgensen (2007) regarding the sustainable environmental management system (EMS) stated a similar thing. Said research stated that to create

an efficient and dynamic system, it takes synergies from several areas. In addition, implementation in each of the six stages of consisting of environmental policy, planning, implementation and operation, checking, management review, and continual improvement is also crucial. Each stage of an EMS is interconnected, so compatibility between stages is essential.(15)

Based on the statistical analysis of the capitation mechanism risk management implementation cycle, the following results were obtained.

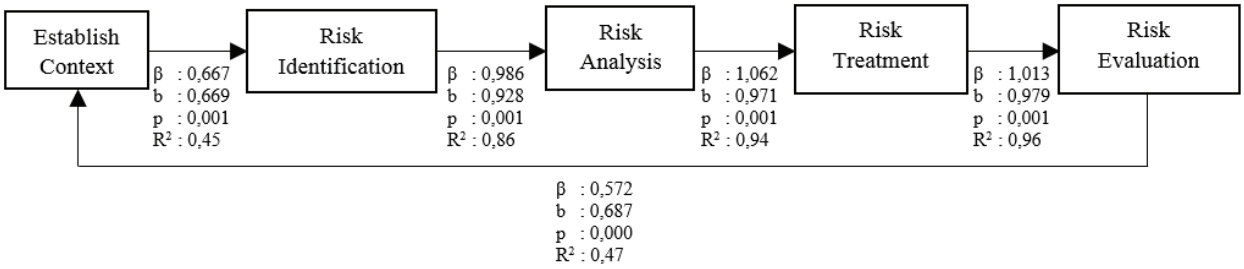

Figure 1. Statistical Analysis Results of Capitation Mechanism Risk Management Implementation Cycle

Figure 1 shows that each stage of the capitation mechanism risk management has a significant influence on each other. The strength of influence between stages of capitation mechanism risk management implementation is strong. This result is in line with research by Sendlhofer, et al. (2014)(16) related to the systematic implementation of clinical risk management in hospitals. The results indicate that clinical risk management plays a dominant role in enabling identification, analysis, and potential risks management. The application of clinical risk management into routines in hospital organizations can be challenging. Each stage in the clinical risk management application affects the quality of the risk management implementation cycle.

Based on the research, it can be concluded that various conditions will influence the risk management in the subsequent stages of implementation. This stage starts from establishing context to risk evaluating. Errors in the establishing context will affect every next step, up to the risk evaluation stage. The better the FLHF understanding and awareness of the risks faced, the better the implementation of identification, analysis, treatment and evaluation of these risks.

Conclusions and Suggestions

Conclusions

1. As many as 49.5 % of FLHF implemented risk management with low and very low intensity, more than those with high and very high intensity. FLHF have not fully implemented the capitation mechanism risk management correctly.

2. There is a strong influence at each stage of risk management implementation (establish context, risk identification, risk analysis, risk treatment, and risk evaluation). It is important to note that understanding and awareness of the risks faced will determine how the FLHF manages each risk.

Suggestions

1. The implementation of risk management will improve if the understanding and awareness of the risks faced are well enough so that the enforcement of the risk context is known in the FLHF. It is expected to be able to apply risk management as a whole.

2. Organizational leaders need to monitor each stage of the risk management implementation in detail (starting from establish context, identification, analysis, treatment to evaluation) because they are closely related to one another.

Conflict of Interest : Nil

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