ID8422+ (1).pdf

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Submission date: 15-Jun-2024 01:26PM (UTC+0700)
Submission ID: 2402863697
File name: ID8422_1_.pdf (583.42K)
Word count: 5462
Character count: 27405

TECHNIUM

Technium Vol. 7, pp.38-52 (2023)
ISSN: 2668-778X
www.techniumscience.com

Risk Management of New Access Road Construction of Syamsuddin Noor Airport South Kalimantan Provincial Government

(Case Study of East Access Development Plan)

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ABSTRACT. The risks involved in construction projects are numerous, but only a few risks need to be made a priority scale. Therefore, parties in the construction project need to give priority to important risks that will affect the profitability of the project. To find out the identification of the dominant risk in the project, it was carried out by distributing a questionnaire to 23 respondents consisting of 6 correspondents from the PUPR Office of South Kalimantan Province as the project owner, 12 respondents from service providers, and 5 respondents from supervisory consultants who were directly involved in the construction of the new access road project at Syamsudin Noor Airport.

Based on the results of data analysis and validation involving experienced parties and directly involved in the construction of a new road west access to Syamsudin Noor Airport, 39 security risks were identified from 9 sources of risk, namely elements of Politics, Economic, Environment, Finance, Natural, project, Technical, Human and Safety . Judging from the analysis of the level of risk acceptance, the dominant risks in this study are unacceptable and undesirable. In terms of the impact of risk on project delays there are 4 risks (10%) unacceptable and 10 risks (26%) undesirable. In terms of the impact of risk on finances, there is 1 risk (3%) and 5 risks (13%) undesirable.

Keywords: Risk Identification, Risk Mitigation, Project Risk, Priority Scale

1. INTRODUCTION

Syamsudin Noor International Airport is an airport serving the City of Banjarmasin in the Province of South Kalimantan, Indonesia. Located in the Village of Syamsudin Noor. Landasan Ulin District, Banjarbaru City, South Kalimantan or 25 km southeast of the city center of Banjarmasin, the largest city in Kalimantan and is located 10 km south-west of the city center of Banjarbaru. Syamsudin Noor International Airport has built a new terminal with a capacity of seven million passengers. This capacity has increased by more than 400% when compared to the old terminal. On December 10, 2019 the new airport terminal began operating, where all flight activities at the old airport terminal were moved to the new airport terminal (Jasa and Widyadaya, 2020)

Access to Syamsudin Noor airport at this time, from the direction of Banjarmasin where access is via the May 17 Monument, turn towards Governor Sarkawi Street, head towards Golf Street then continue towards the North Ring road. From the direction of the city of Banjarbaru or the city of Martapura, road access can be via Karet road, Sapta Marga road and Bina Putra road to go to Karang Anyar 1 road then enter the North Ring road. Meanwhile, from the national road there is no direct

access to Jalan A.Yani. The airport is a national vital object which of course must be connected to the national road, this has become one of the basics for the proposed development of the main access road, which will only be built from the A Yani KM national road. 29 in the Guntung Payung Village area of Banjarbaru to Syamsuddin Noor International Airport (Khurramov, Azizbek and Mamadievich Ganiev, Ibragim, 2021)

There are many risks involved in construction projects, but only a few risks need to be prioritized. According to Bahamid, Rami A et all (2022), construction work will always be faced with political, environmental, planning, marketing, economic, financial, natural, project (project), technical (technic), human (human), criminal (criminal) and safety (safety). An example of a safety risk that occurs at one of the points in the construction of Jalan Kasturi – Airport Access Road – Banjarbaru North Ring Road (Package II), it appears that the road is bumpy, thus endangering motorists who pass at high speed, this is of course needs in-depth identification and is one of the reasons the authors conducted this research.

2. RESEARCH METHOD

Preliminary Stage

The preliminary stage is the stage of the problem and determining the topics to be examined in this study. In the introduction, the background, problem formulation, research objectives, and problem boundaries are formulated. This research was carried out through direct observation and assessment that had been carried out by researchers regarding the construction of a new access road for Syamsudin Noor Airport which was carried out by the Public Works and Spatial Planning Office of South Kalimantan Province. This is to support the determination of research topics.

Literature Study Stage

Literature study aims to study concepts and theories related to risk management both analysis based on direct field problems related to new airport access roads, analysis studies based on existing conditions as well as analysis on previous research on construction projects in general, as a source regarding the basic model of risk management , as well as supporting the theoretical basis for analyzing risk in this study.

Data Collection Stage

Data collection is carried out to obtain the information needed in order to achieve research objectives. One important component in research is the process of data collection. Errors made in the data collection process will make the analysis process difficult, besides that the results and conclusions to be obtained will be ambiguous if the data collection is not carried out correctly. The data obtained is based on the planned research location.

This research location-based data collection activity aims to resolve/obtain the objectives of the problem in determining risk management priorities in making the Syamsudinnor Airport access road so that it is needed to solve existing problems. Types of data used for data collection and sources of collection, including primary data and secondary data.

Primary Data Collection

The questionnaire in this study was in the form of an assessment criteria questionnaire in determining risk factors and risk management in the construction of the Syamsudin Noor Airport Access Road. In addition to determining the indicators that influence determining risk management and development priorities, from the results of the questionnaire, data were obtained to determine the problems that are the cause of risks in the Syamsudin Noor Airport Access Road Development project in 2019 to 2020. The primary data used in this study is the result of distributing questionnaires (risk factor data) and interviews (risk factor data and risk mitigation) to 20 to 30 correspondents who are directly involved in the project and who are competent in their fields. This aims to determine the dominant risks and determine the mitigation and general risk strategy approaches that can be applied to the Syamsudin Noor Airport Access New Road Development project. Questionnaire data processing must go through various stages, starting from data entry into the computer via the SPSS program, validity and reliability testing, descriptive analysis to hypothesis testing.

Secondary Data Collection

Secondary data is data obtained or collected and put together by previous studies or published by various research papers, journals, reports and literature which can be used as a guideline for obtaining initial risk identification which will be integrated with primary data in the form of documentation data and official archives. Data can be in the form of evidence, historical records or reports that have been compiled in archives and the type of data that is related to the problem under study. The data obtained in this study is in the form of project data for the construction of the Syamsudin Noor Airport Access Road from 2019 to 2020 which has been built.

Validity test

This study will use validity testing with item-total correlation with Spearman's correlation coefficient. The data to be tested for validity is tabulated data on respondents' responses from the questionnaires that have been distributed. Calculations and tests are carried out using the SPSS for Windows ver. 25. After the test is carried out, the results will be seen by measuring from r count with r table. Questionnaire instruments that are declared valid can be forwarded for further testing, namely the reliability test. However, if the questionnaire instrument is declared invalid, then the value of the instrument can be removed in the next test.

Reliability Test

The purpose of this test is to determine the consistency of respondents in filling out the questionnaire. The reliability test will use Cronchbach's Alpha coefficients with the SPSS for Windows ver. 25. This reliability test refers to the alpha value contained in the output of SPSS for Windows ver. 25. The data to be tested is tabulated data on respondents' responses to the questionnaire which were declared valid in the previous validity test. If the results of the r count from the reliability test are greater than the r table, the questionnaire instrument is declared reliable. Data that has been declared valid and reliable can be processed for further data analysis.

Cronhbach's alpha is measured based on Cronchbach's Alpha scale 0 to 1. If the scale is grouped into five classes with the same range, then the Alpha stability measure can be interpreted as in Table 2.1

Table 2.1 Cronbach's Alpha value

No	Alpha value	Reliable
1	0,00 - 0,20	Less Reliable
2	0,21 - 0,40	Moderately Reliable
3	0,41 - 0,60	Reliable enough
4	0,60 - 0,80	Reliable
5	0,81 - 1,00	Very Reliable

Risk Acceptability Analysis

Evaluation of the risks identified in the questionnaire that require handling actions based on the results of the dominant risk. The categories that require treatment are all risks included in the unnaceptable and undesirable (major risk) categories.

Table 2.2 Risk acceptance level scale

	Risk acceptance level scale
Unacceptable	$x \geq 15$
Undesirable	$5 \leq x < 15$
Acceptable	$3 \leq x < 5$
negligible	$x < 3$

Major Risk

These risks are risks with an acceptance level (multiplication between likelihood and consequences) equal to or more than 5. These dominant risks will greatly affect project implementation so that appropriate management measures are required. Risks that have the highest dominance will be handled and risk mitigation will be prioritized

Risk Mitigation Strategy

The risk mitigation strategy in this study was formulated with the aim of mitigating the dominant risks contained in the new Syamsudin Noor Airport access road construction project in 2019-2020. Mitigation strategies are formulated based on risk mitigation measures that have been determined based on the stages of the project and the resulting impacts. So it is hoped that all of these risks can be properly mitigated. Mitigation measures and risk mitigation strategies in this study were obtained from analysis results, interviews with competent parties, observations, and from previous studies.

Risk Mitigation Strategy Validation

Validation of the risk mitigation strategy is an action taken to find out whether the strategy that has been formulated is in accordance with the needs and can be implemented in the field. Validation of the risk mitigation strategy was carried out by conducting interviews with respondents who are the owners of the new Syamsudin Noor Airport access road construction activities in 2019-2020, in this case officials related to the construction of new roads at the Public Works and Spatial Planning Office of South Kalimantan Province.

TECHNIUM

Technium Vol. 7, pp.38-52 (2023)
ISSN: 2668-778X
www.techniumscience.com

3. RESULTS AND DISCUSSION

Project and Respondent Data

The object of this research is a project or work at the Public Works and Spatial Planning Office of South Kalimantan Province in the Highways Sector which has experienced delays in the implementation of work in the 2019-2020 fiscal year. Filling in the questionnaire was carried out to 23 people from the project owner, implementing contractor and supervisory consultant as respondents. 39 identified risks and 9 categories of risk sources, namely: Environmental Factors, Planning Factors, Economic and Financial Factors, Natural Factors, Project Factors, Technical Factors, Human Factors, Work Fatigue Factors and Legal and Regulatory Factors. Most sources of risk are very closely related to the technical work in the field with all its activities. The percentage of total risk can be explained in Table 3.1 shows that the most identified risks are project factors, then human factors and legal and regulatory factors.

Table 3.1 Percentage of Total Risk Based on Risk Sources

No	Risk	Total	Percentage
1	Environmental factor	3	7,69
2	Planning Factor	4	10,26
3	Economic and Financial Factors	3	7,69
4	Natural Factors	2	5,13
5	Project Factors	11	28,21
6	Technical Factors	3	7,69
7	Human Factors	7	17,95
8	Work Fatigue Factor	1	2,56
9	Legal and regulatory factors	5	12,82
	total	**39**	**100**

Validity test

In this study, testing the significance of the correlation coefficient was carried out with a significance level of 0.05, so that the research variable is said to be valid if the correlation is significant to the total score. The validity test was carried out on 39 variables in the questionnaire. The results of the test are stated to be valid Table 3. 2 shows the indicator symbols for each risk

Table 3. 2 Test Results for the Validity of Respondents' Answers on Frequency, Project Delays, and Financial Losses

Risk Identification		Spearman Correlation Value		
		Frequency	Project Delays	Financial Losses
Environmental factor	Q1	0.633	0.638	0.89
	Q2	0.617	0.523	0.948
	Q3	0.776	0.845	0.897
Planning Factor	Q4	0.633	0.798	0.823
	Q5	0.536	0.627	0.96
	Q6	0.801	0.812	0.944

	Q7	0.806	0.738	0.918
Economic and Financial Factors	Q8	0.8	0.807	0.937
	Q9	0.937	0.936	0.851
	Q10	0.827	0.852	0.957
Natural Factors	Q11	0.749	0.791	0.951
	Q12	0.754	0.812	0.944
Project Factors	Q13	0.689	0.785	0.932
	Q14	0.85	0.892	0.987
	Q15	0.842	0.882	0.909
	Q16	0.847	0.857	0.935
	Q17	0.8	0.795	0.91
	Q18	0.834	0.946	0.907
	Q19	0.782	0.784	0.875
	Q20	0.781	0.787	0.97
	Q21	0.826	0.848	0.98
	Q22	0.735	0.733	0.928
	Q23	0.7	0.681	0.783
Technical Factors	Q24	0.701	0.696	0.965
	Q25	0.844	0.88	0.893
	Q26	0.828	0.843	0.976
Human Factors	Q27	0.808	0.829	0.95
	Q28	0.75	0.775	0.907
Legal and regulatory factors	Q29	0.882	0.895	0.981
	Q30	0.821	0.824	0.923
	Q31	0.747	0.825	0.915
	Q32	0.725	0.806	0.932
	Q33	0.83	0.82	0.927
Work Safety Factor	Q34	0.711	0.73	0.673
Legal and regulatory factors	Q35	0.759	0.837	0.673
	Q36	0.748	0.764	0.673
	Q37	0.684	0.677	0.673
	Q38	0.721	0.698	0.673
	Q39	0.861	0.863	0.673

Shows the results of validity testing will use the Spearman's formula on the questionnaire question items with the SPSS application for Windows ver. 25. The use of the application is due to the large number of question items and respondents. This test is carried out on the frequency of risks

and the impact of risks (project delays and financial losses). From the test results it can be seen that all statements are declared valid because the value of r count obtained is greater than r table which is 0.413 so that it is declared valid.

Reliability Test

Reliability testing is carried out after all variables are declared valid in validity testing. Reliability testing was carried out with the Cronbach Alpha test in the SPSS program. According to Azwar (2001) if the test results show an alpha value of more than 60% (0.6), then the questionnaire can be declared reliable.

Table 3.3 Reliability Test Results of Respondents' Answers to Frequency, Project Delays, and Financial Losses

No	Risk Identification Factors	Realibility Statistics Cronbach's Alpha	N
1	Risk frequency (likehood)	0,988	39
2	Risk Impacts (Consequences) Against Project Delays	0,990	39
3	Risk Impacts (Consequences) Against Financial Losses	0,994	39

Based on the results of the questionnaire reliability test shown in Table 3.3 it can be seen that the value of Cronbach's Alpha using the SPSS for Windows ver. 25, obtained an average value of 0.990 where the smallest value is 0.988 and the largest value is 0.994. From the data above, the question items are reliable questions because the Cronbach's Alpha value is > 0.60

Risk Acceptance Level Analysis

- Analysis of Respondents' Answers

In this research questionnaire, likelihood is identified as the frequency of risk, while consequences are identified as the impact of risk. There are 2 (two) risk impacts discussed, namely project delays and financial losses.

- Risk Frequency (Likelihood)

By grouping the frequency of occurrence of risks based on their value, the following data can be identified.

Table 3. 4 Results of Grouping Risk Frequency (Likelihood)

No	Risk Frequency (Likelihood)	Frequency	Percentage (%)
1	The frequency of risks is very rare	9	23,08
2	Rare risk frequency	11	28,21
3	Frequency of risk sometimes	10	25,64
4	Frequent risk frequency	6	15,38
5	The frequency of risks is very frequent	3	7,69
	Total	39	100

Based on these data, it can be seen that the frequency of occurrence of risks is most at the frequency of risks that rarely occur in the implementation of the New Access road construction

project at SYAMSUDIN NOOR Airport, South Kalimantan Province. This shows that the risks identified rarely occur in the implementation of new road construction projects in South Kalimantan Province.

- Risk Impacts (Consequences) Against Project Delays

By grouping data based on the magnitude of the impact it causes, the following data can be identified.

Table 3.5 Risk Impacts (Consequences) Against Project Delays

No	Risk Impacts (Consequences)	Frequency	Percentage (%)
1	The risk impact is very small	8	20,51
2	Small risk impact	15	38,46
3	Moderate risk impact	9	23,08
4	Big risk impact	5	12,82
5	The impact of risk is enormous	2	5,13
	Total	39	100

From the data above, it can be seen that of all the risks that may occur, the small risk impact is the risk impact that is most chosen by respondents. This shows that if the identified risks occur, the risk impact on project delays is small.

- Risk Impacts (Consequences) Against Financial Losses

Based on the respondents' answers on the impact of risk on financial loss, the data is tabulated and the median is known for later use in the analysis of the level of risk acceptance. Respondents' answers on the impact of risk on financial loss can be seen in Appendix 3.6 From the table in Appendix 3.6, the following data can be seen.

Table 3.6 Risk Impacts (Consequences) Against Financial Losses

No	Risk Impacts (Consequences)	Frequency	Percentage (%)
1	The risk impact is very small	7	17,95
2	Small risk impact	11	28,21
3	Moderate risk impact	12	30,77
4	Big risk impact	6	15,38
5	The impact of risk is enormous	3	7,69
	Total	39	100

From the data above, it can be seen that of all the risks that may occur, the impact of moderate risk is the impact of the most risks by respondents. This shows that if the identified risk occurs, the impact it can cause is in the moderate category.

- Risk Acceptability Level

By analyzing the level of acceptance of risk, the dominant risk can be identified. So that it can be known which risks must be given mitigation measures so that they can be avoided. To find out the results of the multiplication between the frequency and the impact and the acceptance level category of each risk can be seen in Table 3.7

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ISSN: 2668-778X
www.techniumscience.com

Table 3.7 Distribution of Acceptance of Risk to Project Delay Based on Risk Sources

No	Source of Risk	Risk Identification		Risk Acceptance Rate							
				Unacceptable		Undesirable		Acceptable		Negligible	
		total	%	total	%	total	%	total	%	total	%
1	Environmental factor	3	8%	0	0%	1	3%	2	5%	0	0%
2	Planning Factor	4	10%	1	3%	0	0%	3	8%	0	0%
3	Economic and Financial Factors	3	8%	1	3%	1	3%	1	3%	0	0%
4	Natural Factors	2	5%	0	0%	0	0%	2	5%	0	0%
5	Project Factors	11	28%	1	3%	3	8%	7	18%	0	0%
6	Technical Factors	3	8%	0	0%	1	3%	2	5%	0	0%
7	Human Factors	7	18%	1	3%	4	10%	2	5%	0	0%
8	Work Fatigue Factor	1	3%	0	0%	0	0%	1	3%	0	0%
9	Legal and regulatory factors	5	13%	0	0%	0	0%	5	13%	0	0%
	Total	39	100%	4	10%	10	26%	25	64%	0	0%

Based on Table 3.7 it can be seen that the risk of project delays is as follows:

1. Unacceptable (unacceptable): 4 risks (10%)
2. Undesirable (not expected): 10 risks (26%)
3. Acceptable (acceptable): 25 risks (64%)
4. Negligible (can be ignored): 0 risk (0%)

For risks that fall into the acceptable category, 25 risks or 64% are not discussed so that it can be concluded that in general the risks to project delays identified in this study are dominant risks that must be avoided and given mitigation measures. So in this study the discussion focuses on unnaceptable and undesirable risks.

Table 3.8 Distribution of Risk Acceptance to Financial Losses Based on Risk Sources

No	Source of Risk	Risk Identification		Risk Acceptance Rate							
				Unacceptable		Undesirable		Acceptable		Negligible	
		total	%	total	%	total	%	total	%	total	%
1	Environmental factor	3	8%	0	0%	0	0%	3	8%	0	0%
2	Planning Factor	4	10%	1	3%	2	5%	1	3%	0	0%
3	Economic and Financial Factors	3	8%	0	0%	1	3%	2	5%	0	0%
4	Natural Factors	2	5%	0	0%	0	0%	2	5%	0	0%
5	Project Factors	11	28%	0	0%	1	3%	10	26 %	0	0%
6	Technical Factors	3	8%	0	0%	0	0%	3	8%	0	0%
7	Human Factors	7	18%	0	0%	1	3%	6	15 %	0	0%
8	Work Fatigue Factor	1	3%	0	0%	0	0%	1	3%	0	0%
9	Legal and regulatory factors	5	13%	0	0%	0	0%	5	13 %	0	0%
	Total	39	100%	1	3%	5	13%	33	85 %	0	0%

Based on Table 3.8 it can be seen that the risk of financial loss is as follows:

1. Unacceptable (unacceptable): 1 risk (3%)

2. Undesirable (not expected): 5 risks (13%)

3. Acceptable (acceptable): 33 risks (85%)

4. Negligible (can be ignored): 0 risk (0%)

For risks that are included in the acceptable category, 33 risks or 85% are not discussed so that it can be concluded that in general the risks to financial loss identified in this study are the dominant risks that must be avoided and given mitigation measures. So in this study the discussion focuses on unnaceptable and undesirable risks.

Dominant Risks (Major Risk)

Among the risks that have been identified there is a dominant risk that must be given mitigation measures because this risk has an influence that can cause project delays or financial

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Technium Vol. 7, pp.38-52 (2023)
ISSN: 2668-778X
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losses. For this reason, it is necessary to formulate a mitigation strategy. The dominant risk recapitulation can be seen in Table 3.9

Table 3.9 Recapitulation of the Dominant Risks in the Construction of the Syamsudinnoor Airport Road in South Kalimantan Province

Risk Impact	Dominant Risk		Total		
			Risk Identification	Dominant Risk	%
Project Delays	Q3	Q25	39	14	35%
	Q7	Q27			
	Q8	Q28			
	Q10	Q29			
	Q13	Q30			
	Q15	Q31			
	Q21				
Financial Losses	Q4	Q9	39	6	15%
	Q5	Q21			
	Q7	Q27			

Risk Mitigation

To facilitate the creation of a risk mitigation strategy, the initial stage is to categorize existing risks based on risk acceptance. Based on the classification that has been done previously, the dominant risks that have been identified are in the stages of planning, procurement and implementation, both for the impact of project delays and the impact of financial losses. The stages of developing a risk mitigation strategy can be seen in Figure 3. 1.

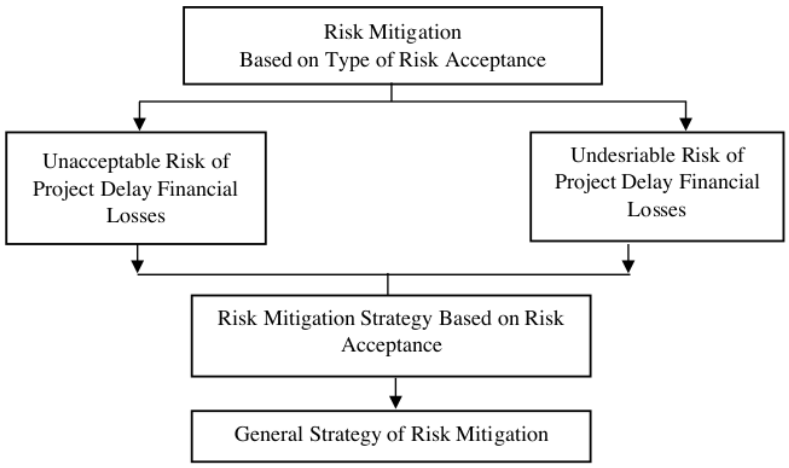

Figure 3. 1. Stages of Making a Risk Mitigation Strategy

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ISSN: 2668-778X
www.techniumscience.com

Risk mitigation is carried out to avoid or reduce the impact of risks that are included in the dominant risk category. The dominant risk in this study is included in the category of unacceptable (unacceptable) and unexpected (undesirable).

Risk Mitigation Strategy

- Risk Mitigation Against Project Delays

It can be seen that there are several risk mitigations for similar project delays. The risk mitigation is then grouped based on the stages of the project factors as shown in the table 3.10

Table 3.10 Risk Mitigation Against Project Delays

	Project Stages	Risk Mitigation
I	Environmental factor	Minimizing the occurrence of environmental damage by conducting environmental damage impact surveys in places close to the project
II	Planning Factor	Choose a plan that is more competent and carry out checks and checks on the results of the plan
III	Economic and Financial Factors	Estimating the unit price is greater than the market price
V	Project Factors	Replace the material in accordance with the specified qualifications
		Bring materials and equipment early to the job site
		Coordinate between the project owner, the supervisory consultant, and the implementing contractor
VI	Technical Factors	Coordinate between project owners, supervisory consultants, planning consultants and implementing contractors
VII	Human Factors	Adjust the contract signing schedule according to the schedule set
		Carry out strict selection in the selection of contractors
		Prepare the completeness of term administration earlier
		Increase the workforce and adjust the budget to increase the workforce
		Replacing a more competent workforce

- Risk Mitigation Against Financial Losses

As is the case with risk mitigation of project delays, simplification is also carried out in mitigating risks of financial loss, it can be seen that there are several similar risk mitigations, both at the planning, procurement, and implementation stages. These risk mitigations are then grouped based on project stages as shown in Table 3.11

Table 3.11 Risk Mitigation Against Financial Losses

No	Project Stages	Risk Mitigation
I	Planning Factor	Rearrange the distribution of funding sources in accordance with the priority needs of the project that must be handled
		Choose a more competent planner and carry out checks and checks on the results of the plan
		Hasten administrative matters and permits before starting the implementation of work
		Rearrange the budget to suit the project in priority
		Choose a more competent planner and carry out checks and checks on the results of the plan
II	Economic and Financial Factors	Complete administrative files before the schedule for taking the term
III	Project Factors	Coordinate between contractors, supervisory consultants and project owners
IV	Human Factors	Establish and comply with the General Procurement Plan (RUP) schedule that has been determined at the beginning of each fiscal year
		Carry out strict selection in the selection of contractors
		Prepare the completeness of term administration earlier
		Schedule contract signing

- General Risk Mitigation Strategy

By establishing a strategy, mitigation actions can be more focused so that risks can be avoided or their impacts minimized. Table 3.11 shows the risk mitigation strategies and mitigation actions taken in accordance with the risk mitigation that has been done before.

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ISSN: 2668-778X
www.techniumscience.com

Table 3.11 Risk Mitigation Strategy

No.	Mitigation Strategy	Mitigated Risks		Mitigation Measures
1	Align budget and implementation time with project needs	Q4, Q5, Q7	1	Planning must pay attention to the actual price of materials/ wages, the standard unit price of materials/ wages issued by the local government, and take into account price fluctuations in determining the unit price of materials/ wages
			2	Dividing the project into multiple stages to maximize the end result
			3	Establish and comply with the General Procurement Plan (RUP) schedule that has been determined at the beginning of each fiscal year
			4	Rationalizing the time for carrying out work with the remaining time in the related budget year
2	Improving the quality of planning	Q3,Q4, Q5, Q7	1	Complete the permitting process and ensure ownership before the project or tender starts and postpone project implementation until the permit requirements are completed
			2	Tighten control over the planning process to take into account methods and designs that suit the needs of the local location
			3	Planning must pay attention to tidal statistics of river/sea water
			4	Include RAB K3 in planning
3	Determine the implementation method that best suits the needs in the field	Q13,Q15, Q21	1	Determine alternative implementation methods to reduce implementation costs
			2	Use the latest technology to speed up the soil improvement process and adjust project costs
			3	Determine all possible changes in methods, designs, materials, alternative solutions, and agree on actions at the pre-preparatory meeting
				construction so as not to interfere with the project implementation process
4	Provider qualification suitability	Q21	1	Ensuring the soundness of the partner company's financial condition at the time of the tender
		Q25	2	Adjusting the qualification requirements of providers with the availability of experts in the field so that procurement failures do not occur

4. CONCLUSIONS

Based on the research results, the risks that can occur in the Syamsudinnoor Airport road construction project in South Kalimantan Province are found in 6 (six) sources of risk, namely environmental, planning, economic and financial, technical and human nature. Based on the analysis of the level of acceptance of risk, the dominant risks that affect the implementation of new road construction in the province of South Kalimantan are obtained. In terms of the impact of risk on project delays, there are 4 risks (10%) unacceptable and 10 risks (26%) undesirable. In terms of the impact of risk on finances, there is 1 risk (3%) of unacceptable and 5 risks (13%) of undesirable.

Risk mitigation strategies are carried out to mitigate the impact of risks included in the dominant risk category. The risk mitigation strategies are adjusting the budget and implementation time to project needs, improving the quality of planning, determining the implementation method that best suits the needs in the field, suitability of provider qualifications, strengthening the supply chain and confirming agreements with suppliers and sub-contractors, maintenance of materials and equipment , tighten supervision, improve coordination between project owners, supervising consultants, and project implementers, and strengthen labor management and implementation.

5. REFERENCES

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