OPERATIONAL RISK ANALYSIS (CASE STUDY AT PT WSB)

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ABSTRACT

The purpose of this study is to identify and understand the operational risks that occur at PT WBS. The analytical method used in this final project is a qualitative method with data collection techniques in the form of interviews, direct observation, and literature study. This analysis was carried out using Enterprise Risk Management (ERM) analysis. The steps taken in conducting the analysis are identifying risks, determining risk priorities, determining the form of response to risks, implementing responses, and developing a risk monitoring system. The results obtained are that PT WBS has 12 operational risks that may occur, namely the risk of human resources, processes, information, materials, machines, and external factors. The risk with the highest risk scoring result is the M2 risk, namely system error, and how to respond to it by reducing the risk. Other risks are responded to based on their level. This research focuses on risk with medium, high and medium levels. At the medium, high and medium levels, the response was reduction, the low medium level was responded to by reduction, monitoring was carried out, and at the low level the risk response was to accept the risk with regular monitoring.

Keywoard: ***Operational Risk, Enterprise Risk Management (ERM), Mitigation***

INTRODUCTION

The company's operational activities are a description of the way the company runs its business or activities. The company's performance can be assessed indirectly from its operational activities, so it can be concluded that operational activities have a very important role in achieving company goals. Therefore, in order to achieve the company's goals and win against the increasingly fierce competition in the industry, companies are starting to improve their operational processes. One of the things that the company does is to improve its operational risk management process.

Every organization or company in the industry faces operational risk wherever they are. Operational risk is a risk that arises in carrying out every business activity. Small failures to exercise control and minimize problems can lead to greater risk materialization and company-wide failure. This chain reaction can be fatal to the company's reputation and threaten the sustainability of the company's business (Deloitte, 2017). With the possibility of fatal impacts arising from negligence in managing operational risk in the company, the company realizes that operational risk management is very crucial in carrying out business activities.

PT WBS is a company that was born and continues to grow to prosper the existing culinary SMEs. The company seeks to provide convenience in shopping through digital services, training and mentoring for partners, as well as additional income through innovative products, attractive programs, and various campaigns. With these various efforts, the company wants to continue to provide benefits to the environment and society through sustainable living. PT WBS is committed to supporting the Indonesian culinary MSME ecosystem and transforming its various business lines.

In order to meet the needs of culinary SMEs in the form of providing basic ingredients and supporting materials, PT WBS uses a digital application that becomes an ordering platform for consumers. When the ordering process is carried out by consumers until the order is received by the system, there are operational risks faced by PT WBS. An

example of an operational risk faced when a consumer places an order through a digital application is the system experiencing an error or damage. After the order is received by the system, PT WBS will follow up on the order until it is received by the consumer. In this process there are operational risks faced by PT WBS, such as mismatch between the data on the stock card and the amount available, delays in delivery to consumers, unexpected vehicle damage or accidents, and others. Operational risks that arise when consumers place an order until the order is received can affect the company's performance. In addition, this risk can have an impact on consumer loyalty to the company. To maintain customer loyalty, PT WBS needs to take actions to mitigate existing operational risks. Operational risk management that needs to be carried out by PT WBS is to identify, measure, and develop a handling strategy to ensure optimization in existing activities at PT WBS.

In this study, the author uses existing theories or concepts as the basis for thinking and previous research as material for thinking. The first study was a study conducted by Normaria Mustiana Sirait and Aries Susanty in 2016 with the title "Operational Risk Analysis Based on the ERM Approach at a Cardboard Manufacturing Company at CV Mitra Dunia Palletindo". This study discusses the operational risks faced by CV Mitra Dunia Palletindo. The research was conducted using qualitative methods. The results of the research obtained are operational risks faced by CV Mitra Dunia Palletindo as many as 32 risks consisting of human resource risks, productivity, procurement of raw materials, warehousing of raw materials and finished materials, systems, and others. The level of risk faced is divided into four categories, namely very low, low, moderate, and high. Based on the risk assessment, the highest risk is the buildup of buffer stock exceeding the existing warehouse capacity and the mismatch of the number of goods coming from the supplier with the number of orders.

The second research is conducted by Sepintas Daya in 2019 with the title "Operational Risk Analysis with the ERM Method Approach at JNE Telukdalam". This study discusses the operational risks faced by JNE Telukdalam using the Enterprise Risk Management (ERM) method approach. The research was conducted using qualitative methods. The result of the research is that the operational risk faced by JNE Telukdalam is caused by human resources. The level of risk faced is divided into four categories, namely very low, low, moderate, and high. Based on the results of the risk assessment, the biggest score is the risk of expensive shipping costs and the risk of work accidents.

The third research is conducted by Dwi Septi Haryania and Octojaya Abriyosob with the title "Risk Management Process with Enterprise Risk Management (ERM) Approach in Tofu Manufacturing Business" in 2020. This study discusses how the operational risk management process in the tofu factory manufacturing business is carried out by Enterprise Risk Management (ERM) approach. The research was conducted using qualitative methods. The results obtained are that there are 12 relevant risks, there are three risks that are classified as significant risks with very high severity, and nine risks are classified as moderate risks. These risks include human resource risk, productivity risk, process risk, external risk, reputation risk, and environmental risk.

In this study, the risk analyzed is operational risk, namely the risk arising from losses resulting from internal failures, people, systems, or external factors. Operational risk is very different from other risks because operational risk does not only pay attention to how to manage something that is not yet known but how to manage processes that already exist. Therefore, the operational risks that will be faced by PT WBS need to be analyzed more deeply to find actions that can overcome these risks, so that PT WBS's business continuity can be maintained. Through this research, the author will identify, measure, and develop operational risk mitigation strategies at PT WBS.

METHOD

In this analysis, the author uses the Enterprise Risk Management (ERM) method. ERM is the concept of integrating enterprise risk management practices at all entity levels to help accelerate and facilitate the achievement of organizational performance goals and targets, besides that ERM also provides principles that can be applied to strategic decision-making and organizational performance achievement (COSO, 2017).

Table 1. COSO ERM Components and Principles

No.	COSO ERM'S COMPONENTS	Principles Related To Component
1.	*Governance And Culture*	a. Setting The Operating Structure b. Determine The Desired Culture c. Demonstrate Commitment To Core Values d. Attract, Develop And Retain Capable Individuals e. Risk Monitoring Exercise
2.	*Strategy And Objective Setting*	a. Analyzing The Business Context b. Defining Risk Appetite c. Evaluating Alternative Strategies d. Formulate Business Goals
3.	*Performance*	a. Identify The Risks b. Assessing The Severity Of The Risk c. Prioritizing Risk d. Implementing Risk Response e. Develop Portfolio View
4.	*Review And Revision*	a. Assessing Major Changes b. Risk And Performance Review c. Pursuing Improvement In Enterprise Risk Management
5.	*Information,Communication, And Reporting*	a. Utilizing Information And Technology b. Communicating Risk Information c. Reporting Risk, Culture, And Performance

Source: COSO, 2017

In this study, the author will focus more on the performance component, because this component will discuss the performance of the company more in-depth. After identifying the operational risks faced by the company, the next step is to determine which risk priority must be prioritized for mitigation.

Table 2. Occurrence

Level	Descriptor	Description	Frequency
5	Almost Sure	The event is expected to appear in most situations	>1 time in a year
4	Often	The incident may appear in most situations	>1 time in a year
3	Moderate	The event that should have appeared at the same time	≥ 1 time in 5 year
2	Seldom	The events can appear at the same time	≥ 1 time in 10 years

1	Very rarely	Events appear only in certain circumstances	< 1 time in 10 years

Sumber : Financial and Development Supervisory Agency, 2011

Table 3. Severity

Level	Rating Dampak	Keterangan
5	Very high or catastrophic	Threatening programs and organizations and stakeholders. Huge loss to the organization from a financial and political perspective
4	High	Threatening the effective functioning of programs and organizations. The loss is quite large for the organization from a financial and political perspective
3	Medium	Interfere with program administration. The financial and political losses are quite large
2	Low	Threatening the efficiency and effectiveness of some aspects of the program. The loss is less material and slightly affects stakeholders.
1	Very Low or Unsignificant	The impact can be handled at the routine activity stage. Less material loss and does not affect stakeholders.

Source : Financial and Development Supervisory Agency, 2011

In addition, in determining risk priorities, this final project report uses a risk matrix (Table 4) to assess the operational risks faced by PT WBS..

Table 4. Risk Matrix

			Severity				
	X		1	2	3	4	5
		Y	Very low	Low	Medium	High	Very High
(Occurrence)	5	Almost Sure	*Low Medium*	*Medium*	*Medium High*	*High*	*High*
	4	Often	*Low*	*Low Medium*	*Medium*	*Medium High*	*High*
	3	Moderate	*Low*	*Low Medium*	*Medium*	*Medium High*	*Medium High*
	g2	Seldom	*Low*	*Low Medium*	*Low Medium*	*Medium*	*Medium High*
	1	Very rarely	*Low*	*Low*	*Low Medium*	*Medium*	*Medium*

Sumber : *Pinto & Magpili, 2015*

Risk response is an identifiable risk control process. This is a basic step in any risk management process. Risk response is a planning and decision-making process in which stakeholders decide how to deal with any risks that may occur (Kerzner, 2001).

Risk response consists of several types, namely:

a. Avoid : Changing strategy or plan to avoid risk
b. Accept : Decided to take the risk. All strategies and plans involve some level of risk.

c. Reduce: Take action to reduce risk. For example, work procedures and equipment designed to reduce safety risks in the workplace.
d. Transfer: Distributing risk across different partners, teams or projects.
e. Monitored : Make a plan to deal with it if it happens.

Table 5. Risk Response

Risk Level	Risk Level	Description	Criteria
1-3	*Low*	Acceptable	Sufficient control
4-6	*Low Medium*	On Watch	Sufficient control
6-9	*Medium*	Management Control	Sufficient control
10-14	*Medium High*	Must be a concern of management (urgent)	(*excellent*)
15-25	*High*	(unacceptable)	(*excellent*)

Sumber : Sirait, Normaria M., dan Aries Susanty, 2016

RESULT AND DISCUSSION

Risk Identify

The identification of risks that occur at PT WBS is based on the business processes that run in the company. This research focuses on the operational risk because the problems that have occurred have come from the company's operations, where the operational risks consist of human resource risk, productivity risk, raw material procurement risk, and system risk. The operational risks obtained by the authors come from observations made directly when carrying out practical work and conducting interviews with field supervisors. Then the author makes a list of indicators of risks that may occur from several existing journals.

Table 6. Operational Risk Identify at PT WBS

Types of Operational Risk	No	Risk	Cause / Source of risk
Human Resources	SDM1	Employees who are less competent in their fields	The recruitment process carried out by PT WBS has not been able to screen employees in this field
	SDM2	Work accident	Negligence at work
	SDM3	Goods inspection error	The low level of accuracy of the checker when inspecting goods
	SDM4	Error in picking up items	Picker negligence when picking up goods at the warehouse
	SDM5	Error recording the number of items in the warehouse	Lack of thoroughness of the warehouse admin in matching the number of items in the warehouse with the system

Process	P1	Food items damaged during shipping	Inappropriate packing of goods which resulted in the goods being damaged
	P2	Delay in delivery of goods to consumers	Road congestion that occurs during delivery
	P3	Delayed goods from suppliers who are not on schedule	The company's lack of firmness in scheduling requests for delivery of goods
Machine	M1	The cooling machine for storing fresh food ingredients is dead or not working	Lack of regular machine maintenance
	M2	Occurrence of system error	Lack of regular system maintenance
Information	I1	Consumer complaints	Delay in delivery, the order received does not match
External	E1	Hygiene of goods from suppliers	Covid 19

Risk Assessment

The risk assessment is carried out after the risks that may occur in the company are identified. Based on the results of risk identification carried out in the previous subchapter, it was found that there were 12 operational risks faced by PT WBS. Assessment of these risks is carried out based on the level of likelihood and severity of the risk. Risk assessment is carried out to obtain risk scoring, where the calculation is a multiplication of severity with occurrence in each risk.

The formula to get risk scoring is

Risk Scoring* = *Severity* x *Occurrence

Sumber : Talabis dan Martin, 2012

Table 7. Operational Risk Assessment at PT WBS

Type of Risk	No	Risk	*Severity*	*Occurrence*	*Risk Scoring*
Human Resources	SDM1	Employees who are less competent in their fields	2	1	2
	SDM2	Work accident	2	1	2
	SDM3	Goods inspection error	3	2	6
	SDM4	Error in picking up items	2	3	6

	SDM5	Error recording the number of items in the warehouse	2	3	6
Process	P1	Food items damaged during shipping	2	4	8
	P2	Delay in delivery of goods to consumers	2	4	8
	P3	Delayed goods from suppliers who are not on schedule	3	3	9
Machine	M1	The cooling machine for storing fresh food ingredients is dead or not working	3	3	9
	M2	Occurrence of system error	4	4	16
Information	I1	Consumer complaints	5	2	10
External	E1	Hygiene of goods from suppliers	2	1	2

Severity and occurrence obtained from the results of interviews with field supervisors. The impact of operational risks that occur at PT WBS is from a small level to a very high level. The probability of occurrence of operational risk is from very rare to frequent. HR1 risk, namely employees who are less competent in their fields (Table 4.2) has a severity level of 2 (two) or includes risks with very small impact and the possibility of one (one) or very rare occurrence. Then, the author conducts an assessment of HR risk 1 in the following way.

Risk Scoring = Severity x Occurrence

Risk Scoring SDM 1 = 2 x 1 = 2

M2 risk, namely the occurrence of a system error having a severity level of 4 (four) or including risks with a large impact and the possibility of occurrence of 4 (four)

or frequent occurrences. Then, the method of assessing M2 risk is carried out as follows.

Risk Scoring = Severity* x *Occurrence

Risk Scoring M2 = 4 x 4 = 16

Calculation of risk scoring on M1 and M2 HR risks also applies to other risks listed in table 4.2.

Risk Matrix

After the risk assessment has been carried out, to make it easier to know which risks are prioritized for mitigation, enter the occurrence and severity values of each risk, where the x-axis is the level of impact of a risk (severity) and the y-axis is the level of probability of a risk occurring (occurrence).

Tabel 8. Matriks Risiko Operasional PT WBS

Occurrence	Dampak (*Severity*)						
	X Y		1 Very low	2 Low	3 Medium	4 High	5 Very High
	5	Almost Sure					
	4	Often				M2	
	3	Moderate		SDM4, SDM5	P3, M1		
	2	Seldom		P1, P2	SDM3		I1
	1	Very rarely		SDM1, SDM2			

The position of the description of the operational risk matrix (Table 8) is based on the results of the risk scoring. HR4 and SDM5 risks are in a position where the severity level is two and the occurrence is three and the P1 and P2 risks are in a position where the severity level is two and the occurrence is two. HR1 and SDM2 risks are in a position where the severity level is two and the occurrence is one. While P3 and M1 risks are in a position where the severity level is three and the occurrence is three, and SDM3 risk has a severity level of three and occurrence of 2. Meanwhile, M2 risk has a severity level of 4 and occurrence 4 and I1 risk has a severity level of 5 and occurrence 1.

PT WBS operational risk mapping on the risk matrix (Table 8) is used to find out where the level or level of the risk is. After knowing the level or level of the risk, the next thing to do is to mitigate the risk.

Risk Response

From the risk matrix discussed in the previous sub-chapter, companies face 12 operational risks with different levels of risk. After knowing according to the level, the

next step is to respond to the risk whether the risk can be accepted, avoided, reduced, or transferred to other parties. The risk response carried out by PT WBS on the level of risk faced is as follows:

a. *Level Medium High*

This level contains machine and information risks. How to respond to risk at this level by reducing risk. At this level, risk scoring M2 occurs with system errors and I1 complaints from consumers. This risk should be reduced because it can cause losses to the company, both financially and customer loyalty.

b. *Level Medium*

At this level, there are two risks in it. Ways of handling to respond to these risks by reducing or reducing their impact. The highest risk scoring at this level is P3, namely delays in goods from suppliers that are not on schedule, and M1, namely the cooling machine for storing fresh food items is dead or not working..

c. *Level Low Medium*

At this level, there are three risks, namely SDM4, which is an error in taking goods, SDM5, which is an error in recording the number of goods in the warehouse, and SDM3, which is an error in goods inspection. The appropriate risk response is monitored of any risk events that will occur.

d. *Level Low*

At this level, there are four risks, namely P1, namely food ingredients that are damaged during delivery, P2, namely delays in delivery of goods to consumers, SDM1, namely employees who are less competent in their fields, and SDM2, namely work accidents. Risk at this level can be responded to by accepting risk by monitoring.

Risk Control

Risk control is the recommended step to avoid risk, transfer, and even accept risk. This research only focuses on the medium, high and medium levels. This is based on the Risk Response Table that risks at the medium, high and medium levels are risks that need more attention from management and need to be controlled regularly..

Tabel 9. Operasional Risk Control at PT WBS

Level	No	Risk	Risk Control
Level *Medium High*	M2	System error	Schedule maintenance or maintenance to ensure the machine is always in good condition
	I1	Consumer complaints	Delivery is done on time Items given to the consumer must comply with the order

Level Medium	P3	Delayed goods from inappropriate suppliers timetable	Communicating the delivery schedule of goods from suppliers Make an agreement in case of delay
	M1	Cooling machine for storing fresh food ingredients is dead or Doesn't work	Perform periodic checks for the cooling machine, such as checking the freon or replacing the coolant filter

CONCLUSION

From the results of operational risk research at PT WBS, there are several conclusions that can be drawn as follows:

a. In the analysis with Enterprise Risk Management (ERM) it focuses on the company's operations and it is known that there are 12 operational risks that may occur in the company. The company's operational risks include human resources, processes, information, materials (materials), machines, and external factors.
b. The risk assessment is carried out based on the level of impact which is divided into five groups and the level of probability. Multiplying the impact (severity) with the probability (occurrence) to get a risk score. In this calculation the risk of M2 system error with a risk score of 16. In the risk matrix, it is divided into four levels, namely medium high, medium, low medium, and low.
c. Risks that are divided into different levels of risk are handled by responding to risks first. How to respond to these risks by avoiding, reducing, transferring, and accepting risks. This research focuses on risk with medium, high and medium levels. At the medium, high and medium levels, the response was to reduce risk, the low to medium level was responded to by monitoring, and at the low level the risk response was to accept risk with regular monitoring.

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