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The 2nd International Conference On Business And Economics

"Acceleration of Innovation Reconfiguration and Digital Economy Development in an Archipelagic Country Post Covid-19 Pandemic"

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THE 2ND INTERNATIONAL CONFERENCE ON BUSINESS AND ECONOMICS

"Acceleration of Innovation Reconfiguration and Digital Economy Development in an Archipelagic Country Post Covid-19 Pandemic"
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Description of Cover Background Image:

Photo "Faculty of Economics and Business Building, B Building, Pattimura University." – A building that was inaugurated in 2020 will provide space intended for 4000 students who are included in the UNPATTI plan. This was made a priority by the Ministry of Research, Technology, and Higher Education and the Minister of Finance of the Republic of Indonesia, and was followed up by Bappenas and 2019 SBSN funding. The building shape that looks like a ship is taken from the Principal Scientific Pattern of Pattimura University, namely Bina Mulia Maritime Affairs. This indicates that the Faculty of Economics and Business is ready to oversee economic development in Maluku based on islands. The Faculty of Economics at Pattimura University itself has three main buildings supporting lectures with two floors, all located within the Poka Campus of Pattimura University. In general, lecture buildings are equipped with various lecture support facilities. These facilities include air-conditioned lecture halls supported by multimedia equipment, computer laboratories, libraries, auditoriums, student canteens, gazebos, internet hotspots, and motorized vehicle parking lots.

Preface

This proceeding was prepared based on the outcomes of the international seminar on the 2nd ICON-BE activity by theme "**Acceleration of Innovation Reconfiguration and Digital Economy Development in an Archipelagic Country Post COVID-19 Pandemic**", held on October 15, 2022, at the Swiss Bell Hotel in Ambon. The seminar is being held in order to provide constructive scientific thinking to the government and other stakeholders in order to ensure the establishment of the Post-COVID-19 Pandemic Digital Economy, as the subject has been suggested. This seminar's scientific concepts were gathered from researchers, professors, and practitioners.

This international seminar activity was attended by participants consisting of experts, researchers, academics, representatives of the Ministry of Tourism and Creative Economy, as well as practitioners in the fields of business and tourism.

We appreciate the Minister of Tourism and Creative Economy for sharing his thoughts on the need to build a post-pandemic digital economy, particularly in island nations. With the issue raised, gratitude and appreciation are also expressed to the invited speakers, including Mrs. Prof. Dr. Sri Adiningsih, M.Sc., from Gadjah Mada University by Topic "**Digital Economy Transformation in Indonesia**". To Mrs Jeongyoon Lee, Ph.D., from the University of Kentucky with the topic raised "**Policy and Regulatory Network in encouraging Digital Economy Development and Virtual Interaction**". To Mrs. Dr. Vanessa Ratten from La Trobe University with the topic raised "**Impact of Economic Digitalization on Ecotourism in Archipelagic Country**". To Mr. Arif Perdana, Ph.D., CA from Monash University with the topic raised "**Digital Finance and Innovation to Support Financial Inclusion**".

Furthermore, the authors, editors, and organizers of this international seminar acknowledged their appreciation and gratitude for the study findings and seminar perspectives. Everything went off without a hitch, from preparation to execution.

As a result, we anticipate that this process will be especially beneficial to the growth of digital economics in post-pandemic archipelagic countries. If there any flaws in this document, please realize and let us know that it will be addressed in the next event.

Ambon, May 2023

Head of Executive Committee The 2nd ICON-BE

Dr. Conchita V. Latupapua, SE. M.M.

The 2nd International Conference on Business and Economics Committee

(in Bahasa)

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IMPLEMENTATION OF RISK MITIGATION IN FREIGHT FORWARDING SERVICE COMPANY (CASE STUDY IN J&T EXPRESS YOGYAKARTA)

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ABSTRACT

Introduction/Main objectives: This research was conducted with the aim of being able to identify the risk factors that arise in the delivery of goods, determine a good and effective strategy to deal with the risks and impacts that arise in the delivery of goods and make risk management that is right on target with the house of risk (HoR) method to solve problems from goods delivery activities. Indonesia is one of almost countries affected by Covid-19, as a result of this there is a change in the trend of public spending where 90% of their daily needs are met through online shopping. As a result of this trend change, many logistics companies have experienced an increase in demand for goods delivery services, but it is undeniable that this is directly proportional to the problems that arise and the new risks faced by these logistics companies, such as J&T Express. Therefore, researchers conduct study in order to reduce the impact of the risks. **Research methods:** The sample was taken at a freight forwarding company in Yogyakarta, namely J&T Express. **Finding/Results:** The findings of this study obtained that there are 21 Risk Events identified with 21 Risk Agents, from the results of risk agents and risk events identified 3 priority risk agents for preventive action, namely (A1) or the impact of Covid-19, the Large-Scale Social Restrictions Policy ('*PSBB*'), service hours public/office, travel/delivery area restrictions by the community, goods sent not on schedule. (A3) or the recipient's address is wrong, the recipient of the package does not want to pay the bill, the package is damaged, natural disaster and (A11) or the time the package is received by the customer exceeds his estimate (the package was received late). **Conclusion:** The selected risk agents have been determined based on the application of the Pareto diagram are further analyzed using the House of Risk table phase 2, and obtained 7 mitigation actions or preventive actions (PA). Based on 7 precautions (PA) obtained the highest priority for strategic planning is (PA2) or making reference to the schedule for distributing goods that are adjusted to the new Covid-19 norms with an Effectiveness to Difficulty Ratio (ETD) value of 2472.8 and the lowest strategic planning priority, namely (P4) or refreshment related to product knowledge, SOPs, package handling information with an ETD value amounted to 532.

Keywords: risk mitigation; house of risk; risk event; risk agents; forwarding company
JEL Classification: D81, G32

INTRODUCTION

Business success is in unpredictable market conditions and volatility. Business competition is no longer dependent on the ability of the company's business operations individual but based on supply chain (Kusmantini *et al*., 2015). The spread of Covid-19 throughout the world has made the digitalization trend grow rapidly so it requires everyone to be able to follow this change. This trend is very visible in the changing shopping trends at this time. Almost everyone fulfills their needs by shopping online. Along with the fast target market for goods delivery service companies, J&T Express is a company that provides e-

commerce-based goods delivery services, providing convenience for consumers to access information online. However, with the emergence of this trend, it is unavoidable that several risks arise in the delivery of goods based on e-commerce. Found there are customer complaints that are received and need to be handled properly. With the consideration that J&T Express is not the only company that does business in this field, so it is necessary to improve services by minimizing and transferring the risks that arise as a result of this practice. Improving service quality cannot be separated from the important role of stakeholders, especially in the organizational structure of the company. Managers must make an analysis of customer satisfaction by making comparisons of service achievement with complaints or risks that arise. Strategy to build a strong supply chain needed to reduce market uncertainty and applies risk mitigation to the risks that arise in J&T Express based on house of risk. Conducted this research identify the risk factors that arise in the delivery of goods, determine a good and effective strategy to deal with the risks and impacts that arise in the delivery of goods and make risk management that is right on target with the House of Risk (HoR) method to solve problems from goods delivery activities.

The risks that arise as a result of the practice of delivering goods by J&T Express will be analyzed by researchers, the possible risks that arise can be described by implementing selected mitigation actions or preventive actions or as priority preventive actions, by mapping risks based on risk categories, which aim to to help determine appropriate and efficient mitigation actions or actions in reducing losses or problems experienced by the Company for these risks. With this, the researcher tries to analyze the type of risk, the causes of the risk, the impact of the risk, and the application of appropriate mitigation or preventive actions using the HoR method.

Based on the preliminary description, the authors formulate the problems that will be discussed in the research, namely the authors are expected to be able to determine what types of risks arise at J&T Express performed by PT. Pilar Prima Nusantara in handling the delivery of goods, what are the causes of risk in the Freight Forwarding Service (J&T Express), what are the impacts on the delivery of goods and what strategies can be applied by J&T Express in the case of shipping goods. The purpose of this research is to be able to identify the risk factors that arise in the delivery of goods, determine a good and effective strategy to deal with the risks and impacts that arise in the delivery of goods and make risk management that is right on target with the HoR method to solve problems from goods delivery activities.

LITERATURE REVIEW

1. Definition of Risk

According to Alijoyo (2006), the definition of risk is based on two points of view, namely: (**a**) from the point of view of results or outputs, risk is "an outcome or output that cannot be predicted with certainty, which is disliked because it would be counter-productive; (**b**) from a process point of view, risks are "factors that can affect the achievement of goals, resulting in undesirable consequences". Meanwhile, according to Hanafi (2006) provides a definition that risk is a danger or consequence that can occur as a result of an ongoing process or future events.

2. Types of Risk

The risk that can be transferred to another party, by making an object coverage that will be exposed to risk to the insurance company, by paying a certain amount of insurance premium, so that all losses are borne by the insurance company.

1. Risks that can or cannot be transferred to other parties (cannot be insured). It usually includes all types of speculative risk, according to the source/cause of occurrence, namely:
   a. Internal Risk. Internal risk is the risk that comes from the company itself, such as: damage to assets due to the actions of its own employees, work accidents, mismanagement;
   b. External Risk: the risk that comes from outside the company, such as the risk of theft, fraud, competition, price fluctuations, changes in government policy.
2. Risk Analysis
   Risk analysis has the general objective of separating acceptable minor risks from major risks, and to provide data to assist in risk evaluation and treatment. Risk analysis involves considering the sources of risk, their consequences, and the likelihood that these consequences may occur.
3. Risk Mitigation
   According to Jokowinarno (2009), the definition of mitigation is actions to reduce or minimize the potential negative impact of a disaster, risk mitigation is a planned and sustainable action taken by the

risk owner in order to reduce the impact of an event that has the potential or has harmed or endangered the risk owner.

4. Purpose of Risk Mitigation
   The purpose of risk mitigation is to develop and implement effective strategies to reduce the risks associated with the policies taken to the lowest possible level (Subagyo *et al*., 2020).
5. House of Risk
   House of Risk (HoR) is a model that refers to the idea that a proactive supply chain risk management should try to focus on preventive action, namely by reducing the possibility of risk agents (Pujawan & Geraldin, 2009). The model framework HoR developed is easy to use in the calculation process, but in the application of the model there is still subjective judgment to cover the shortcomings, it is necessary to involve cross functional experts (Pujawan & Geraldin, 2009).

METHOD, DATA, AND ANALYSIS

In this study, researchers used data collection methods by:

1. An open questionnaire is a collection of questions to the respondents to write their opinions or answers about the questions given by the researcher, so that the researchers obtain answers to the required data. A questionnaire is a collection of a list of questions in a study that must be answered by the respondent or informant (Walgito, 1987).
2. Interview, where the researcher conducted interviews directly with the data source, namely the manager at J&T Express.
3. Direct observation, researchers made direct observations by coming to the J&T Express office to make direct observations. Where according to Arifin (2011) Observation is a process of systematic, logical, objective and rational observation and recording of various phenomena, both in actual situations and in artificial situations to achieve certain goals.
4. Documentation study, the researcher also carried out this data collection method. This means that the researcher collects several photos of documentation taken during direct observation.

In this study, researchers used qualitative data. According to Sugiyono (2015), qualitative data is characterized by the form of words, schemes, and pictures. The qualitative data of this research are the names and addresses of the research objects. This study uses qualitative data analysis techniques where researchers have collected data before direct observation to the object of research by conducting interviews to be able to assist in identifying risks and causes of risk, conducting risk analysis, conducting risk evaluations, and being able to determine strategies or risk mitigation using the House of Risk model. The framework for the House of Risk model is as follows:

1. House of Risk Phase 1 (HoR 1)
   HoR phase 1 focuses on ranking ARP which consists of 3 factors, namely occurrence, severity and interrelationship or in other words, this phase focuses on the risk identification process which includes risk agents and risk events.
   a. Identify risk events that can occur in each business process. This can be done through supply chain mapping (plan, source, make, deliver and return) and then identify what is missing/wrong in each process.
   b. Estimating the impact of several risk events (if they occur). In this case using a scale of 1 – 10 where 10 indicates an extreme impact. The severity of the risk event is placed in the right hand column of the table and is expressed as Table 2.
   c. Identify the risk sources and assess the probability of occurrence of each risk source. In this case, a scale of 1-10 is set where 1 means that it almost never happens and a value of 10 means that it often happens. The risk source (Risk agent) is placed on the top row of the table and is associated with the bottom row events with O*j* notation.
   d. Develop a matrix relationship. The relationship between each risk source and each risk event, Rij (0, 1, 3, and 9), where 0 indicates no correlation and 1, 3, 9 indicates low, medium and high correlation, respectively.
   e. Calculate the aggregate risk potential of agent j (in short: ARPj) which is determined as a result of the possible events from the risk source j and the set of causes for each risk event caused by the risk source j as in the following equation: ARPj = Oj Si R.

Table 1. House of Risk 1.

Business Processes	Risk Event (E*i*)	Risk Agents (A*j*) A1	A2	A3	A4	A5	A6	A7	Severity of Risk Event *i* (S*i*)
Plan	E1	R11	R12	R13	…	…	…	…	S1
	E2	R21	R22	…	…	…	…	…	S2
Source	E3	R31	…	…	…	…	…	…	S3
	E4	R41	…	…	…	…	…	…	S4
Make	E5	…	…	…	…	…	…	…	S5
	E6	…	…	…	…	…	…	…	S6
Deliver	E7	…	…	…	…	…	…	…	S7
	E8	…	…	…	…	…	…	…	S8
Return	E9	…	…	…	…	…	…	R*ij*	S9
Occurrence of Agent *j*		O1	O2	O3	O4	O5	O6	O7	
Aggregate Risk Potential *j*		ARP1	ARP2	ARP3	ARP4	ARP5	ARP6	ARP7	
Priority Rank of Agent *j*									

Information: A1, A2, A3…A_n: Risk Agent; E1, E2, E3 …E_n: Risk Event; O1, O2, O3 … O_n: Occurrence Value of Risk Agent (A*i*); S1, S2, S3 … S_n: Severity Value of Risk Event (E*i*); ARP1, ARP2, ARP3 … ARP_n: Aggregate Risk Priority. *Source*: Pujawan & Geraldin (2009).

2. House of Risk Phase2 (HoR 2)
   It focuses on determining the most appropriate step to take first by considering the effectiveness of the resources used and the level of performance of the object or project concerned.
   a. Select a risk agent with a high priority level based on the output of HoR.
   b. Identify relevant actions to prevent risk from arising.
   c. Determine the relationship between each preventive action on each risk trigger (risk agent) using a value of 0, 1, 3, or 9. Those number indicate strength relationship between action k and agent j as no, low, moderate, and strong, respectively.
   d. Calculate the level of effectiveness of each action as follows:
      Measure the level of difficulty by representing each action. $TEk = \Sigma\, ARPjEjk$
   e. Calculate the total effectiveness to determine the amount of the ratio with the following formula: $ETDk = TEk / Dk$; where TE*k* as Total Effectiveness; and D*k* as Degree of Difficulty.
   f. Prioritize starting from the highest ETD value to the lowest. The main priority value is given to the mitigation action that has the highest ETD value.
   g. Priority ranking of each action (Rk) where rank 1 gives the meaning of the action with the highest ETDk.

Table 2. House of Risk 2

To be treated risk agent (A*j*)	Preventive Action (PA*k*)					Aggregate Risk Potential (ARP*j*)
	PA1	PA2	PA3	PA4	PA5	
A1	E11	E12	E13	…	…	ARP1
A2	E21	E22	…	…	…	ARP2
A3	E31	…	…	…	…	ARP3
A4	…	…	…	…	…	ARP4
A5	…	…	…	…	E*jk*	ARP5
Total effectiveness of action *k*	TE1	TE2	TE3	TE4	TE5	
Degree of difficulty performing action *k*	D1	D2	D3	D4	D5	
Effectiveness to difficulty ratio	ETD1	ETD2	ETD3	ETD4	ETD5	
Rank of priority	R1	R2	R3	R4	R5	

Information: A1, A2, A3 … A_n: The selected risk agent for handling; P1, P2, P3 … P_n: The handling strategy that will be carried out; E11, E12, E13 … E_{nn}: Correlation between handling strategy and risk agent; ARP1, ARP2, ARP3 … ARP_n: Aggregate Risk Priority from risk agent; TE1, TE2, TE3 … TE_n: Total effectiveness of each treatment action; D1, D2, D3 … D_n: Level of difficulty in implementing the handling action; ETD1, ETD2, ETD3 … ETD_n: Total effectiveness divided by degree of difficulty; R1, R2, R3 … R_n: Rank of each handling action in order of highest ETD value. *Source*: Pujawan & Geraldin (2009).

RESULT AND DISCUSSION

In this chapter, the researcher uses primary data obtained from the description of the analytical method used with the intention of describing and describing the results of research on risk mitigation carried out on J&T Express, with data obtained directly from respondents. The data from the identification of the causes of risk/Risk Agent are as follows:

Table 3. Causes of Risk/Risk Agent.

Risk Cause Code	Case of Risk (Risk Agent) (Aj)	Description
A1	The impact of Covid-19 is the *PSBB*, public/office service hours, restrictions on travel/delivery areas by the community, goods sent not on schedule	There are rules and restrictions on public services due to Covid-19
A2	The description of the package sold by the seller does not match the item	Product information or package identity and address by Seller or Customer do not match
A3	Wrong recipient address, package recipient doesn't want to pay the bill, damaged package, natural disaster	The recipient of the package does not pay the bill, the condition of the package is damaged, the condition is force majeure, the address does not match
A4	The address or other identifying information of the customer does not match	In providing address information, the identity of the customer is not correct
A5	Handling of customer packages is not good or not according to standardization	Handling packages that are not according to SOP
A6	The service from J&T is less than excellent and customer's understanding of J&T products is limited	In serving custoers from J&T, it doesn't match the flow, rules and service standardization
A7	Price and service competition between businesses in the delivery of goods	Market competition between people with the same business
A8	Theft, embezzlement, sabotage and manipulative	There are devaitions from norms from J&T employees or external parties related to cooperative such as dishonesty, and a sense of responsibility
A9	J&T Fleet Damage	The fleet is in an unsanitary condition and the schedule from the airlines cause delays in delivery
A10	The customer package is insured for damage/lost	Insured customer package and loss or damage accurs
A11	The time when the package was received by the customer exceeded the estimate (the package was received late)	Service level agreement below the standard in the distribution of packages
A12	J&T Employeee Error in pasting receipt/inputting address, miss route package due to human error on the part of J&T	Decreased quality of service in handling customer package, error in attaching package receipts, errors in addresses in the system, non-standard packing of packages
A13	The customer package is not insured for damage/lost	Customer packages that are not insured and loss damage occurs
A14	Embezzlement of company money for the personal benefit of employees	Acts that deviate from the norm of honesty by J&T employees
A15	Loss or damage to customer packages caused by internal J&T	Improper handling of customer packages inside and outside the company
A16	Force majeure, traffic jams, demonstration, shortage of diesel or fuel	A situation of urgency such as heavy road traffic, riots, or scarce fuel stocks
A17	The unexpected spike in package	Forecast the number of missed packages
A18	Short promotion life cycle	Short promotion deadline
A19	Lack of knowledge and understanding of products and service and workflow by J&T workers	The level of understanding of product, services and work systems that have not been maximized by workers
A20	Employee negligence at work, traffic factors, or non-compliance with work SOPs	Lack of understanding of J&T employee on SOPs for handling goods and customers, negligence at work or non-compliance with works SOPs
A21	Outsourcing human resources who have met the qualifications	Fulfillment of qualified human resources less than optimal training and monitoring from outsourcing companies

Note: Risk Cause Code A1 to A21 were used to simplify layout of the risk agent description in Table 5.

As well as in the application of the House of Risk model to obtain risk mitigation that can be applied to J&T Express properly and maximally. In this case, the following is a table of the House of Risk model phase 1, in Table 4.

Table 4. Risk Events Caused by Risk Agent.

Agent's risk amount	Description	List of risk events caused by risk agents	Value of correlation
R1	There are rules and restrictions on public services due to Covid-19	1;3;9;11;12;13;14;15;16	9
R2	Product information or package identity and address by Seller or Customer do not match	2;3;5;6;14	3
R3	The recipient of the package does not pay the bill, the condition of the package is damaged, the condition is force majeure, the address does not match	1;3;5;8;9;10;11;12;13;14;16	9
R4	In providing address information, the identity of the customer is not correct	3;4;6;12;16	3
R5	Handling packages that are not according to SOP	5;10;11;13;19	3
R6	In serving custoers from J&T, it doesn't match the flow, rules and service standardization	4;6	3
R7	Market competition between people with the same business	7;4;18	1
R8	There are deviations from norms J&T employees or external parties related to cooperative such as dishonesty, and a sense of responsibility	6;8;14;15	3
R9	The fleet is in an unsanitary condition and the schedule changes from the airlines cause delays in delivery	1;9;17	1
R10	Insured Customer Package and loss or damage accurs	5;6;8;10	3
R11	Service Level Agreement below the standard in the distribution of packages	1;6;10;11;16	9
R12	Decreased quality of service in handling customer package, error in attaching package receipts, errors inputting addresses in the system, non-standard packing of packages	4;11;12	3
R13	Customer packages that are not insured and loss damage occurs	6;8;10	3
R14	Acts that deviate from the norm of honesty by J&T employees	6;8;14;15	3
R15	Improper handling f customer packages inside and outside the company	5;6;15	3
R16	A situation of urgency such as heavy road traffic, riots, or scarce fuel stocks	1;9;16	9
R17	Forecast the number of missed packages	17	1
R18	Short promotion deadline	7;18	1
R19	The level of understanding of product, services and work systems that have not been maximized by workers	19;20	1
R20	Lack of understanding of J&T employee on SOPs for handling goods and customers, Negligence at work or non-complaiance with works SOPs	19;20	1
R21	Fulfillment of qualified human resources less than optimal training and monitoring from outsourcing companies	21	1

Note: values of correlation are 0, 1, 3, or 9 indicating strength relationship type as no relations, low, moderate, and strong, respectively.

Table 5. House of Risk Phase 1.

Risk Event (R*i*)	Risk Agent (A*j*)																				Severity of Risk Event *i* (S*i*)
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	
E1	9	9							9		9					9						5
E2		1																				3
E3	3	3	3	3																		5
E4				3		3						3										2
E5		3	3		3					3					3							5
E6		9		9		9		9		9	9		9	9	9							4
E7							1											1				2
E8			3					3		3			3	3								4
E9	3		3						3							3						2
E10			3		3					3	3											3
E11	3		3		3						3	3	3									4
E12	3		3	3								3										4
E13	1		1		1																	4
E14	3	3	3			3	3							3								5
E15	3							3						3	3							4
E16	3		3	3							3					3						5
E17									1								1					4
E18							1											1				2
E19					3														3	3		3
E20																			1	1		2
E21																					1	2
Occurrence of Agent J	5	4	4	4	2	3	3	3	2	3	3	3	2	3	3	4	5	2	3	3	2	
Potential j	775	228	740	168	210	144	30	216	52	162	324	144	120	270	180	300	20	8	36	24	4	
Priority	1	6	2	10	8	12	17	7	15	11	3	12	14	5	9	4	19	20	16	18	21	

Note: Risk Agent (Aj) column were refered from Table 3.

So that the recapitulation of the ARPj value is obtained, as follows:

Table 6. Recapitulation of ARPj Values.

Risk Code	ARP*j*	Cause of Risk (Risk Agent) (A*j*)	Rating
A1	775	The impact of Covid-19 is the PSBB service hours, restrictions on travel/delivery areas by the community goods sent not on schedule	**1**
A3	740	Wrong recipient address, package recipient doesn't want to pay the bill, damaged package, natural disaster	**2**
A11	324	The time when the package was received by the customer exceeded the estimate (the package was received late)	**3**
A16	300	Force majeure, traffic jams, demonstration, shortage of diesel or fuel	**4**
A14	270	Embezzlement of company money for the personal benefit of employees	**5**
A2	228	The description of the package sold by the seller does not match the item	**6**
A8	216	Theft, embezzlement, sabotage and manipulative	**7**
A5	210	Handling of customer packages is not good or not according to standardization	**8**
A15	180	Loss or damage to customer packages caused by internal J&T	**9**
A4	168	The address or other identifying information of the customer does not match	**10**
A10	162	The customer package is insured for damage/lost	**11**
A6	144	The service from J&T is less than excellent and customer's understanding of J&T products is limited	**12**
A12	144	J&T Employeee error in pasting Receipt/inputting address, Miss Route Package due to human error on the part of J&T	**13**
A13	120	Customer packages that are not insured and loss damage occurs	**14**
A9	52	J&T Fleet Damage	15
A19	36	Lack of knowledge and understanding of products and service and workflow by J&T workers	16
A7	30	Price and service competition between businesses in the delivery of goods	17
A20	24	Employee negligence at work, traffic factors, or non-compliance with work SOPs	18
A17	20	The unexpected spike in package	19
A18	8	Short promotion life cycle	20
A21	4	Outsourcing human resources who have met the qualification	21

After obtaining the highest cumulative ARPj value as a priority risk mitigation. In dealing with risk, not all risk agents get a treatment. On the consideration of several factors, namely in terms of costs incurred in the handling process and the level of impact caused is considered too small. Therefore, not all risk agents are handled by the company, except for risk agents which are considered a priority or the highest total cumulative ARPj percentage value. It is described in table as the selected Risk Agent in Table 7.

Table 7. Risk of Selected Agent.

Risk Code	ARPj	% Total Cumulative Percentage ARP*j*	Cause of Risk (Risk Agent) (A*j*)	Rating	Category
A1	775	18.65%	The impact of Covid-19 is the PSBB, public/office service hours, restrictions on travel/delivery areas by the community goods sent not on schedule	1	Priority
A3	740	17.81%	Wrong recipient address, package recipient doesn't want to pay the bill, damaged package, natural disaster	2	
A11	324	7.80%	The time when the package was received by the customer exceeded the estimate (the package was received late)	3	
A16	300	7.22%	Force majeure, traffic jams, demonstration, shortage of diesel or fuel	4	Non Priority
A14	270	6.50%	Embezzlement of company money for the personal benefit of employees	5	
A2	228	5.49%	The description of the package sold by the seller does not match the item	6	
A8	216	5.20%	Theft, embezzlement, sabotage and manipulative	7	
A5	210	5.05%	Handling of customer packages is not good or not according to standardization	8	
A15	180	4.33%	Loss or damage to customer packages caused by internal J&T	9	
A4	168	4.04%	The address or other identifying information of the customer does not match	10	
A10	162	3.90%	The customer package is insured for damage/lost	11	
A6	144	3.47%	The service from J&T is less than excellent and customer's understanding of J&T products is limited	12	
A12	144	3.47%	J&T Employeee Error in pasting Receipt / inputting address, Miss Route Package due to human error on the part of J&T	13	
A13	120	2.89%	Customer packages that are not insured and loss damage occurs	14	
A9	52	1.25%	J&T Fleet Damage	15	
A19	36	0.87%	Lack of knowledge and understanding of products and service and workflow by J&T workers	16	
A7	30	0.72%	Price and service competition between businesses in the delivery of goods	17	
A20	24	0.58%	Employee negligence at work, traffic factors, or non-compliance with work SOPs	18	
A17	20	0.48%	The unexpected spike in package	19	
A18	8	0.19%	Short promotion life cycle	20	
A21	4	0.10%	Outsourcing human resources who have met the qualification	21	

Based on the Table 8, the results from the selected risk agents are (A1) the impact of Covid-19 on the *PSBB*, public/office service hours, travel restrictions/delivery areas by the community, 118 goods were sent not on schedule. So risk agent (A1) needs to be taken care of, but based on priority ranking there are 3 selected risk agents that need to be taken preventive action with priority information in Table 8.

Table 8. Mitigation Actions.

PA Code	Preventive Action
PA1	Simultaneously apply the mandatory Covid-19 vaccine to all employess and comply with the prokes rules when distributing goods
PA2	Make reference to the schedule for distributing goods that are adjusted to the new Covid-19 norms
PA3	Monitoring and updating of changes to the rules for each community activity, both from the regional government and the central government
PA4	Refreshment related to product knowledge, SOP, package handling information
PA5	Make a self reminder to all workers and customers in rechecking their identity or all information provided in the process of delivering goods
PA6	Evaluation and updating of schedules and more efficient package distribution routes
PA7	Distribute according to the schedule reference that has been compiled (not out of line/SOP)

From the mitigation actions presented in the Table 8, where the correct selection of mitigation actions is carried out in the application of prevention and reduction of emerging risks. So that there are 3 dominant mitigation actions or with the highest ETD results.

Table 9. Selected Mitigation Actions.

Risk Code	Risk Agent	PA Code	Preventive Action	Dk
A1	The impact of Covid-19 is the PSBB service hours, restrictions on travel/delivery areas by the community goods sent not on schedule	PA1	Simultaneously apply the mandatory Covid-19 vaccine to all employees and comply with the health protocol rules when distributing goods	3
		PA2	Make reference to the schedule for distributing goods that are adjusted to the new Covid-19 norms	4
		PA3	Monitoring and updating of changes to the rules for each community activity, both from the regional government and the central government	3
A3	Wrong recipient address, package recipient doesn't want to pay the bill, damaged package, natural disaster	PA4	Refreshment related to product knowledge, SOP, package handling information	2
		PA5	Make a self reminder to all workers and customers in rechecking their identity or all information provided in the process of delivering goods	3
A11	The time when the package was received by the customer exceeded	PA6	Evaluation and uptating of schedules and more efficient package distribution routes	4
	The estimate (the package was received late)	PA7	Distribute according to the schedule reference that has been compiled (not out of line/SOP)	3

Note: Dk= Degree of Difficulty.

After obtaining the right mitigation actions to be applied, the researchers weighed the degree of difficulty and made a table of the House of Risk model phase 2 to assist researchers in making conclusions from the analysis carried out in the results of the implementation of the selected mitigation actions, as for the House of Risk model phase 2 as follows:

Table 10. House of Risk Phase 2.

Risk Agent	Mitigation Action							ARP
	PA1	PA2	PA3	PA4	PA5	PA6	PA7	
A1	1	9	3		3	3	3	775
A3				1	3			740
A11	3	9	3	1	3	3	9	324
TECH	1747	9891	3297	1064	4545	3297	5241	
Dk	3	4	3	2	3	4	3	
ETD	582.33	2472.8	1099	532	1515	824.25	1747	
Rank	6	1	4	7	3	5	2	

Based on the Table 10, it can be seen that from the 7 mitigation actions that will be implemented, the highest priority strategic planning or mitigation action results are obtained, namely (PA2) or making a reference for the distribution schedule of goods that is adjusted to the new Covid-19 Norm with an ETD value of 2472.8 while the priority of strategic planning or the lowest mitigation action, namely (P4) or refreshment related to product knowledge, SOPs, package handling information with an ETD value of 532.

CONCLUSION

Based on the research that has been done, it can be concluded as follows:

1. From the results of identification and risk causes, there are 21 Risk Events identified with 21 Risk Agents.
2. From the results of identification and risk causes that have been obtained, an analysis is carried out to determine the value of the frequency of risk occurrences (severity) with the highest weight, namely a value of 5 and the probability of the cause of the risk appearing, which is a value of 5. Then the data is analyzed using the House table of Risk phase 1 with the aim of being used to determine which risk sources are prioritized for preventive action.
3. From the results of the House of Risk table phase 1, priority risk agents are obtained based on the Potential Aggregate Risk (ARPj) value with the highest value, namely (A1) or the impact of Covid-19 on the PSBB, public/office service hours, restrictions on travel/delivery area by the community, goods are sent not according to schedule and the value of Potential Aggregate Risk (ARPj) with ARPj value is 775 and the lowest ARPj is (A21) or human resources outsourcing who has not met the qualifications with ARPj value is 4.
4. Based on the results Potential Aggregate Risk (ARPj) rating is obtained by the selected Risk Agent for which Mitigation Actions or preventive action plans will be carried out, namely (A1) or the impact of Covid-19 on the PSBB, public/office service hours, travel restrictions/delivery areas by the community, goods delivered not on schedule (A3) or the recipient's address is wrong, the recipient of the package does not want to pay the bill, the package is damaged, natural disaster and (A11) or the time the package is received by the customer exceeds his estimate (the package was received late).
5. The selected risk agents who have been determined based on the application of the Pareto diagram are further analyzed using the House of Risk table phase 2, and obtained 7 mitigation actions or preventive actions called (PA).
6. Based on seven Preventive Actions (PA), the highest strategic planning priority is obtained, namely (PA2) or making reference to the distribution schedule for goods that is adjusted to the new Covid-19 norms with an ETD value of 2472.8 and the lowest strategic planning priority, namely (P4) or product-related refreshment knowledge, SOP, Package handling information with an ETD value of 532.

IMPLICATION, LIMITATION AND SUGGESTIONS

The implications of this research relate to the implementation of preventive measures with the highest ETD value, in the most efficient value if taking preventive measures in order to minimize the risks caused, namely by making a reference schedule for the distribution of goods that is adjusted to the new Covid-19 norm.

The limitation in this study is difficult to predict the trend, so the authors suggest that for future researchers, it should be adjusted to the conditions when the research was carried out.

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