Optimizing Risk Mitigation Analysis of Business Development Division (Case Study: Urban Transportation Division at PT Kereta Api Indonesia (Persero)

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ABSTRACT: The community can use various alternative modes of transportation, and the train is still the choice for most Indonesian people. PT Kereta Api Indonesia (Persero), the object of this research, has 2 main businesses, namely the railroad and the non-railroad businesses. A company's business processes do not stop until the company benefits from the business it does, but in this highly complex and interconnected world, the risk is everywhere. Risk management is an important discipline for companies, institutions, and society in today's modern business world. Risk management is carried out based on the ISO 31000:2018 framework. This research will discuss optimizing risk mitigation strategies as a tool for the business development division to provide effectiveness and how to implement these solutions in the real world. Sources in this study came from secondary data such as annual reports, audited financial reports, and project studies in the Urban Transportation Business Development Division of PT Kereta Api Indonesia (Persero), discussions, and interviews with related parties. Some of the tools used in this study are PEST to analyze external companies, McKinsey 7S Framework to analyze external companies, and the Enterprises' Risk Management method for the risk management process. Managing risk through optimizing risk mitigation can reduce and minimize loss exposure. Based on the risk matrix score results, the company can take risk treatment, whether the risk must be mitigated or accepted. The risk level score from the risk matrix is used to make underwriter decisions in the risk acceptance process at the Business Development Division of PT Kereta Api Indonesia (Persero).

KEYWORDS: Business Development, Enterprises Risk Management (ERM), ISO 31000:2018, McKinsey 7S Framework, PT Kereta Api Indonesia (Persero), PEST, Risk Management, Risk Mitigation, Risk Matrix Score, Urban Transportation.

1. INTRODUCTION

Transportation is a critical and strategic tool in facilitating the wheels of the economy and influencing all aspects of national and state life. The importance of this transportation is reflected in the growing demand for transportation services to and from all corners of the country. The volume of vehicles on the islands of Java and Bali increases year after year and is not matched by available road capacity, resulting in traffic jams. To address this issue, the government should promote the use of public transportation. It is extremely difficult to eliminate traffic congestion, but it can be reduced. When combined with rising fuel prices, it will put additional strain on the public when they use private vehicles. Oil-producing countries will reduce their output by the end of 2022, this decision has the potential to raise the global price of fuel oil. The rising fuel prices will undoubtedly burden the community, particularly those who rely on private vehicles for daily activities. As a result, public transportation is an alternative mode of transportation that people can use to carry out their daily activities. The community has a variety of alternative modes of transportation to choose from. This mode of transportation is chosen based on the capabilities and interests of everyone who uses it. Trains remain the preferred mode of transportation for most Indonesians, considering factors such as cost, comfort, and safety. Trains can also help with several national transportation issues, including: (1) traffic jams on the roads caused by increasingly congested traffic; (2) The increase in fuel prices which causes transportation costs to continue to increase; (3) The condition of the main road which experienced a lot of damage and (4) There are many victims of motorized vehicle accidents. Now, PT Kereta Api Indonesia (Persero), the subject of this research, has two main businesses: railways and non-railways. According to the detailed income at PT KAI (Persero), the period from 2019 to 2020 was indeed a difficult year for KAI due to the drastic decline caused by the current pandemic. Because the pandemic was over and replaced by endemic, PT KAI (Persero) increased slightly from 2020 to 2021. However, the passenger transportation services category has experienced the greatest percentage decline in 2021. This is due to several COVID-19-related

issues, including the government's Large-Scale Social Restrictions program, the requirement for people to be vaccinated to use train transportation, and the need for PCR/Antigen tests, which are relatively expensive. The passenger transportation services category is the main sector of the railroad business, and the downward trend in this sector is undoubtedly harming the railroad business at PT KAI (Persero). As a result, a strategy to improve revenue performance in this sector is needed. Therefore, the author wants to discuss more deeply about this business development strategy. The PPU business development division is part of PT KAI (Persero), which is responsible for the business development strategy in the category of passenger transportation services. Generally, large, well-established companies that are good at absorbing today's competitive advantages should also be able to create future entrepreneurial opportunities. Business development is a concept that focuses on new markets, new products, or both, through acquisitions, licensing, joint ventures, minority capital investment and internal development (Odediran, 2013). In the PPU division, the business development strategy focuses on studying the expansion of new routes that can be applied in the railroad business with the aim of accommodating public demand. The PPU division focuses on the concept of business development in the form of expanding train routes to accommodate new passengers for rail transport on the islands of Java & Bali due to their high level of mobilization. Most of the business development strategies carried out in the PPU division are in the form of studies regarding the opening of new railway lines in areas that do not yet have railroad routes to absorb potential new passengers. In practice, the strategies proposed by the business development division carry a high risk because the required investment costs are very high; therefore, the risk profile must be thoroughly studied so that the proposed business development strategy can run optimally and produce good results for the company. Every business can generate value by mitigating and reducing the impact of financial risk losses. This can be accomplished by implementing the three steps, namely risk measurement, control, and risk management throughout the organization. In this case, risk management is used to determine how effective the projects proposed by the business development division are at reducing the impact and probability of risk occurring in the company's business processes.

2. LITERATURE REVIEW

- **Risk Management**

Risk in business activities is also related to the amount of risk that the risk taker is willing to accept. The greater the risk, the greater the potential return. According to the KBBI, risk is an unpleasant, detrimental, or harmful outcome of an action. It is possible to interpret risk as the possibility of something negative, unexpected, or unwanted harm occurring. Risk management is required for businesses to protect themselves from potentially disastrous outcomes. According to risk management in emerging market books, the risk management process consists of several key steps, which are as follows:

A. Risk Identification. This is possibly the most important process because it is from this process that all risks that exist or may occur in a project must be specifically identified.

B. Risk Assessment. In this step, each risk's probability, and impact if it occurs, must be assessed. The analyst must then decide whether to accept, avoid, or reduce the risk based on the measurement results. Risk measurement/risk analysis will be performed using tools, specifically Enterprise Risk Management (ERM), to determine the degree of risk identified as material for consideration in the management decision-making process.

C. Risk Monitoring. In this step, the risk must be accepted or mitigated, and the plan must be monitored to ensure its implementation. At this point, the company must exert maximum control over the emergence of various undesirable risks.

Based on ISO 31000:2018, provides guidelines for organizations to manage risks. These guidelines can be tailored to any organization and its environment.

- **External Analysis**

External analysis is an examination of the company's environment for the purpose of assessing the company's external conditions that have an impact on industries and markets that the company cannot directly control (Indah et al., 2021). This analysis seeks to determine the possibility of the company increasing its profit and determining which company threats must be avoided. Companies gain an understanding of their external environment by gathering information from competitors, customers, and other stakeholders to develop their own knowledge base and capabilities (Hitt, 10th edition). PEST analysis is one tool for analyzing external analysis. According to Swindon's book Strategy and Business Objectives, PEST analysis provides a framework for investigating and analyzing an organization's external environment. When attempting to identify sources of change, the Framework identifies four key areas that should be considered.

A. Political: A potential change in government, with changes in policies and priorities, or the introduction of new government initiatives are examples of political factors.
B. Economic: Economic factors may be limited to the country of origin as well, but as global trade grows, economic difficulties in one country tend to have a far-reaching, often global impact.
C. Social: Socio-cultural factors are influenced by customers or potential customers.
D. Technology: This category includes factors resulting from technological advancements. There are two types of technological changes; 1) developments in information technology and 2) specific technological developments for an industry or market.

After all, features have been considered, the listed factors are evaluated to determine which are most likely to impact the organization. It generates a list of critical external influences that could prompt it to act - either to capitalize on opportunities that appear to exist or to eliminate any threats.

- **Internal Analysis**

In this case, an internal analysis is required to determine the business's strengths and weaknesses. The author can use this method to examine resources, internal environments, and competencies to formulate and implement a given strategy. This method can be used for strategy formulation after discovering the main points of the internal analysis to ensure that the strategy has advantages in terms of strengths and opportunities. The authors, on the other hand, use the McKinsey 7S Framework method in their research because it can be used to understand how internal elements are interconnected and drive one another to assess an organization. McKinsey 7S Framework is useful in many situations and is an excellent tool in creating an organization's structure, improving the performance of the organization, investigate the organizational change factors, align the departments and processes involved in acquisitions & mergers, and determine the best organizational strategy. The seven elements are classified as "hard" or "soft" by the McKinsey 7S Framework (Kenan, 2014). The three "hard" elements, so named because they are relatively easy to identify and influence directly by management, are as follows:

A. Strategy: The strategy refers to how the company's competitive advantage will be achieved.
B. Structure: Structure is an organization's basic architecture - how tasks and people are divided and aggregated.
C. System: Formal organizational procedures such as management control systems, performance measurement and reward systems, planning, budgeting, resource allocation, and information systems.

The four "soft" elements, on the other hand, can be more difficult to explain, less tangible, and more influenced by corporate culture. They are, however, just as important as the hard elements if the organization is to succeed.

A. Staff: Staffing includes how businesses recruit and integrate professionals, as well as how they enter the organization (recruitment, selection, and socialization into company values) and develop it.
B. Skill: The specific competencies that exist within the organization are referred to in this context. Company personnel, practice methodologies and protocols, management skills, and technology development or application may all require specific competencies.
C. Style: Style refers to the norms of how people act and interact with one another, clients, and professionals from other companies on shared deals or issues.
D. Shared Values: These are broadly shared sets of core or fundamental values within a company or practice that serve as guiding concepts of what is "right".

According to the model, for an organization to function properly, the seven elements must be balanced and reinforced. In this study, the McKinsey 7S Framework analyzes the current situation and future to identify gaps and inconsistencies between the future and the current situation.

3. RESEARCH METHODOLOGY

This research falls under the category of descriptive data research, which was analyzed using the tools described by the author in the previous chapter. In this research, sample selection is determined using a purposive sampling technique because the sampling technique is a self-assessment of the sample among the selected population. Of course, the assessment is given if it meets specific criteria related to the research topic. (1) The research sample was conducted at the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero), and (2) The research data is taken from projects that have not been realized

in the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero) in 2019-2021. This study makes use of both secondary and primary data. Secondary data is derived directly from annual reports, audited financial reports, and studies of unrealized projects in PT Kereta Api Indonesia (Persero) Urban Transportation Business Development (PPU) division for 2019-2021. Meanwhile, researchers obtained primary data through direct interviews with related party managers. This research's literature review was based on books, related journals, and previous studies. The author will use the International Standardization Organization ISO 31000: 2018 guidelines to conduct a risk management analysis on projects in the Urban Transportation Business Development Division (PPU) at the PT Kereta Api Indonesia (Persero). Furthermore, as discussed in the previous chapter, the author performs two analysis processes: internal analysis using PEST analysis and external analysis using the McKinsey 7S Framework. This study aims to generate risk mitigation decisions that must be made from existing projects at PT Kereta Api Indonesia (Persero)'s Urban Transportation Business Development Division (PPU). This research was carried out using qualitative methods. Author conducts qualitative research through direct interviews with related parties to obtain the detailed information required to carry out the analysis in this study. The author's data is historical, spanning the years 2019 to 2021. This data collection is useful for measuring the level of risk associated with each project in the related division, as well as mitigating risks that may arise.

4. RESULTS AND DISCUSSION

4.1 Analysis

It was created from the results of previous chapters, which were created using external analysis, internal analysis, interviews with managers of the Urban Transportation Business Development Division at PT Kereta Api Indonesia (Persero), and risk processes using the ERM method in the ISO 31000: 2018 framework.

A. External Analysis using PEST.

Table I. PEST Analysis

Political	Economic
- PT Kereta Api Indonesia (Persero) has several suppliers to assist in the manufacture of rails, train cars, and support all needs in accessing or using this land transportation. Some of the companies that cooperate include PT Industri Kereta Api (Persero) (INKA), PT Schenker Petrolog Utama, PT Martin Bencher, and so on. - Then PT KAI (Persero) is very dependent on regulatory assistance and regulations from the government to implement them. - PEMDA policies from each operational area of PT KAI (Persero) greatly influence the steps taken by the company, particularly regarding the opening of new rail lines which must be in accordance with local regulations or customs. - PT KAI (Persero) itself as a state-owned company is heavily influenced by the policies of the ministry of state-owned enterprises, both regarding the value of the company and its business operations.	- Even though the economic impact obtained by PT Kereta Api Indonesia (Persero) considering the increase in consumers from year to year to support its activities, PT KAI (Persero) is still very dependent on travel fare subsidies provided by the government due to PT KAI (Persero)'s passenger transportation fares will be too high for the community if the Indonesian government does not help it with subsidies. - PT KAI (Persero) basically acts only as a railway operator, so that the independent funds for business development or expansion that they manage will not be sufficient. - Economic conditions in Indonesia are getting better after the pandemic and economic growth is above the average for most ASEAN countries, so that this good economic climate can attract foreign or local investors to invest in Indonesia.
Social	**Technological**
The social impact itself is more towards customers/passengers at PT Kereta Api Indonesia (Persero). Where passengers or people who are loyal to this transportation can easily access the ticket purchase	Purchasing tickets online makes it easier for customers to access departure schedules and prices at PT Kereta Api Indonesia (Persero) or other travel agents. Consumers can easily view and compare train

service. PT KAI (Persero) strives to provide relief and convenience as well as time efficiency for passengers when it comes to buying tickets.

- PT KAI (Persero) also has other facilities that are very diverse in terms of products, making it easier for customers in terms of selecting available facilities. This makes customers loyally return to rail transportation.
- The high intensity of rejection for new projects that will be carried out by PT KAI (Persero), especially the project for opening a new railway line that passes through the assets of residents around the construction area. This refusal is usually in the form of community behavior that is difficult to cooperate with in the process of transferring or acquiring existing land.
- PT KAI (Persero) plays a role in absorbing workers from affected communities in projects that will be built by the company.

ticket prices with other transportation, where trains have affordable prices.

- The existing rail lines only require maintenance, repair, and reactivation so that very little new technology is used, so that the work is not too difficult and complex because of the existing rail lines.
- The width of the Indonesian railroad tracks has always used a rail width of 1067mm, while new technology trains used abroad already require a rail width of 1435mm. So, this makes every track that PT Kereta Api Indonesia (Persero) will build must be in accordance with the old technology and system.

Source: Author Analysis

B. Internal Analysis using McKinsey 7S Framework.

- Strategy. PT Kereta Api Indonesia (Persero) prioritizes service to customers / passengers by creating competitive advantages, one of which is by implementing online train ticket purchasing, in addition to forming PT KAI (Persero) subsidiaries such as PT Kereta Api Wisata, PT Kereta Api Properti, and PT Kereta Api Logistik. This is intended to make PT KAI (Persero) more self-sufficient and capable of supporting its business activities. Furthermore, PT KAI (Persero) offers passengers lower-cost fares when compared to other modes of public transportation. Finally, PT KAI (Persero) prioritizes passenger safety by making "safety no anjlokan" movements.
- Structure. In reshuffling the organizational structure of PT Kereta Api Indonesia (Persero) by considering its business needs, the organizational structure of PT KAI (Persero) is as follows:
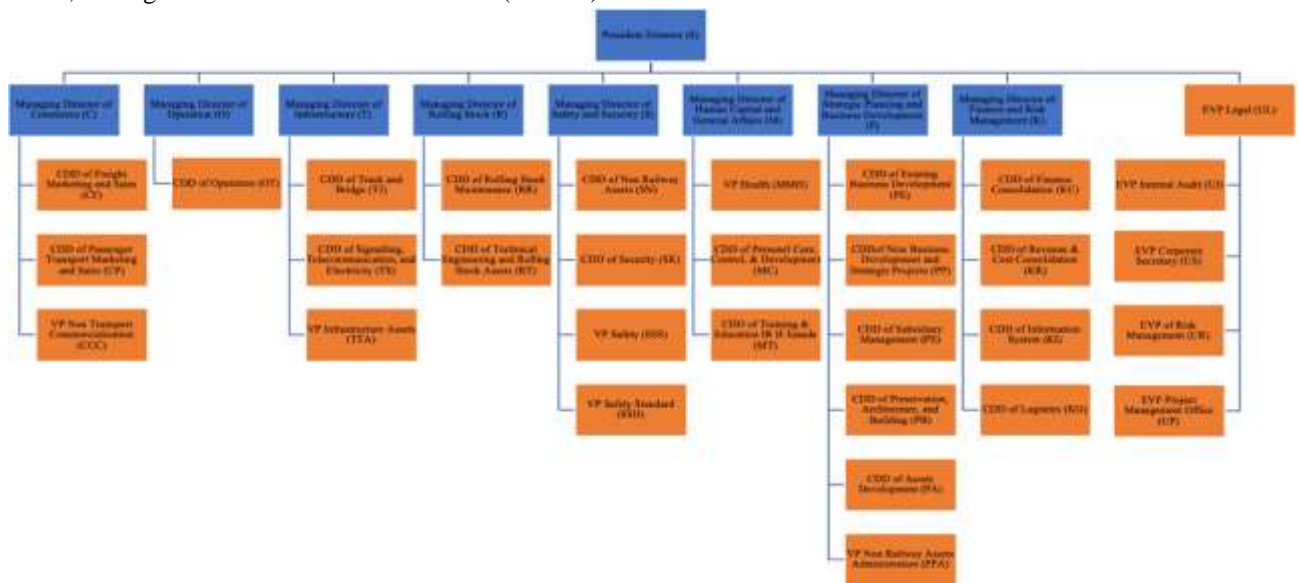

Figure I. Vertical Structure of PT Kereta Api Indonesia (Persero)
Source: Annual Report of PT Kereta Api Indonesia (Persero), 2021

PT KAI (Persero) is gradually showing good development by structuring the organization towards business, one of which is by delegating tasks or projects to be right on target according to the best division so that the resulting output will be maximized because it is carried out by departments that have expertise that matches the job desk.

- System. The business world is becoming more competitive as time passes, and companies must conduct themselves more professionally. Companies' competitiveness and survival in the business world must be improved. To improve a company's performance, management is required. This is done to ensure that the activities carried out are in accordance with the organization's specifications. Companies must carry out their business activities effectively and efficiently to maintain business continuity, which is also the foundation for practical success. A management control system is one of the pillars for carrying out activities effectively and efficiently. The business management control system is critical for the company because it can influence the rate of development. A business will fail if it does not have a good business management system or systems in place. Of course, each company has its own operating system. However, the better the company's management system, the faster it will develop; conversely, if the company's management system is poor, the company will be unable to build and compete with other companies. Similarly, PT Kereta Api Indonesia (Persero). The management control system structure included in PT KAI (Persero) demonstrates clear responsibility boundaries, a delegation of authority, and job descriptions, as well as relationships between sections within an organization. It describes the obligations and responsibilities of positions held by individuals in the organization, their relationships with other members of the organization, and the reporting requirements they must follow. We can see from the organizational structure that the company clearly defines its duties and responsibilities. The first step in carrying out an activity is strategic planning. This phase defines the objectives, type of implementation, personnel and financial requirements, implementation timing, and conditions and regulations to be met.

- Skill. Employees of PT Kereta Api Indonesia (Persero) must have competencies in accordance with the duties of each division to carry out their duties. The ability to communicate effectively and establish harmonious relationships among employees and with external parties is the most common skill required of PT KAI (Persero) employees. The ability to analyze problems and find solutions by applying predetermined work values. Furthermore, the ability to work in a team is required to build positive working relationships and assist companies in meeting their business objectives. At work, being proactive, having a strong opinion, and thinking quickly to solve a problem are all essential.

- Staff. Employees of PT Kereta Api Indonesia (Persero) are urged to prioritize order and regulation, in keeping with one of PT KAI (Persero)'s missions of providing a safe, efficient, digital-based, and rapidly expanding transportation system to meet customer needs. Employees of PT KAI (Persero) must follow the rules for KAI to become the best transportation ecosystem solution in Indonesia. To support the business activities of PT KAI (Persero), the company has implemented a policy of selective and effective human resource training and development. This is one of the factors that can make every PT KAI (Persero) employee professional and disciplined in their work. But besides this, PT KAI (Persero) employees must also have adaptive thinking in dealing with various unexpected situations within the company.

- Style. PT Kereta Api Indonesia (Persero)'s leadership style includes: (1) Leaders at PT KAI (Persero) have no personal interest in their position while at KAI. (2) Leaders at PT KAI (Persero) must be firm and unwavering to carry out KAI's mission. (3) Maintain consistency between actions and words in accordance with SOE corporate culture, namely AKHLAK, which PT KAI (Persero) unquestionably supports. (4) To ensure the smooth operation of KAI, the leaders of PT KAI (Persero) frequently go directly to the field to see the progress of each project. (5) The leadership of PT KAI (Persero) is concerned about KAI employees because employees are one of the most important factors in a company's sustainability. Transformational Leadership is the best leadership style for PT Kereta Api Indonesia. Transformational leadership occurs when followers of a transformational leader have trust, admiration, loyalty, and respect for the leader and are motivated to go above and beyond what they expected (Yukl, 2010).

- Shared Values. PT Kereta Api Indonesia (Persero) continues to internalize the company culture in the hope that the values of Trustworthy, Competent, Harmonious, Loyal, Adaptive, and Collaborative (AKHLAK) are instilled in the heart and properly implemented. As a result, AKHLAK has become a daily culture for PT KAI (Persero) employees to do better business. KAI will be even more enthusiastic about implementing AKHLAK as a means of realizing the company's vision of becoming Indonesia's best transportation ecosystem solution. AKHLAK is made up of the following elements: (1)

Trustworthy. Keep the faith that has been given. The Trust value serves as a behavioral guide for three things. The first is keeping promises and commitments. Second, accountability for tasks, decisions, and actions taken, and third, adherence to moral and ethical values. (2) Competent. Continue to learn and grow your skills. This value serves as a guide to improve self-competence in responding to ever-changing challenges, assisting others in learning, and completing tasks with the highest quality. (3) Harmonious. Respecting differences and caring for one another. This value serves as a guideline for respecting everyone, regardless of background. Furthermore, liking to help others and creating a conducive work environment is a Harmonies behavior guide. (4) Loyal. Dedicated to and prioritizing the nation's and state's interests. This loyal value serves as a guide for upholding the good name of coworkers, leaders, SOEs, and the state. Willing to make sacrifices to achieve a greater goal; willing to obey the leadership if it does not violate the law or ethics. (5) Adaptive. Continue to innovate and be excited about moving or facing change. This value serves as a guide for quickly improving. Furthermore, make continuous improvements to keep up with technological developments and act proactively. (6) Collaborative. Creating synergistic collaboration. Its implementation is intended to allow various parties to contribute. Furthermore, being open to collaborating to create added value and drive the use of various resources for common goals. These values can provide PT Kereta Api Indonesia (Persero) employees, as well as all BUMN employees, with a clear path to achieve the company's objectives.

4.2 Business Solution

In this sub-chapter, the author will examine in greater detail the risk management analysis process of each Urban Transportation Business Development Division (PPU) project at PT Kereta Api Indonesia (Persero) using a risk identification, risk analysis & measurement, risk evaluation, and risk mitigation approach until the risk will be monitored again. The objective of this chapter is to determine which mitigation strategy is most effective for each project under review in PT KAI's (Persero) PPU Division.

A. Risk Identification. Identifying potential risks is the first step in the risk management process. Risk refers to events that, when triggered, can result in either problems or benefits. This company's risks were identified through external and internal analysis, followed by interviews with the Manager of the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero). The interview results include several risks that exist in existing businesses. The following is a list of unrealized projects from PT Kereta Api Indonesia (Persero)'s PPU Division for which the author will analyze the risks: (1) Study of the tramway line development project in Semarang in 2019. (2) Study of the tramway line development project in Bogor in 2021. (3) Study of new track construction projects and reactivation in Bandung in 2022. (4) Study of the I Gusti Ngurah Rai Airport train project to Sanur in 2022.

All the projects listed above will be identified with the three sources of risk, and all risk identification in the table below has been approved by PT KAI (Persero)'s PPU Division. Risk identification will be explored in the table below:

Table II. Risk Identification

Type of Risk	No.	Risk Identification	Source
Financial	1.	Small passenger volume	Interview
	2.	The project cannot be executed due to lack of capital	PEST
	3.	Income from projects is uncertain at a time when operational costs are high	PEST
	4.	The government does not provide subsidies for tariff	PEST
	5.	Significant decrease in passenger volume due to force majeure circumstances	Interview
Operational	6.	Asset damage because it is not maintained properly	Interview
	7.	Work accident	McKinsey 7S
Political	8.	The project could not be implemented because it did not receive support from the government	PEST

Social	9.	Resistance from residents around the construction area	Interview
	10.	Lack of human resources to fill the project operations area	Interview
Internal	11.	The planned project is not sustainable	McKinsey 7S
	12.	The project did not run smoothly due to poor coordination between workers	Interview

Source: Author Analysis

The above table and list of risks are part of the risk identification process, which aims to reveal what, where, when, why, and how something can affect the company's ability to operate. So, the author can proceed to the next step, risk analysis, and measurement.

B. Risk Analysis & Measurement. Risk analysis, according to ISO 31000, entails a thorough examination of uncertainties, risk sources, consequences, likelihood, events, scenarios, controls, and their effectiveness. In this study, risk analysis consists of determining the impact and potential risks identified. The impact and likelihood are then combined to calculate a risk level. Risk measurement and analysis provide input for risk evaluation and decision-making about whether the risk should be addressed. Risk analysis and measurement can also provide information for deciding which options to pursue, and those options may involve varying types and levels of risk. An assessment of the risks involved in the project study is carried out at the Urban Transportation Business Development (PPU) Division of PT Kereta Api Indonesia (Persero) during the process of analyzing and measuring this risk, including an assessment of the impact if a risk occurs, as well as the possibility of a risk occurring through group discussion forums with experts in this research, namely managers and senior employees in the PPU Division of PT KAI (Persero). The results of the risk assessment of the elements in the project study that are indicators of a high/low level of risk are then mapped, with the goal of identifying the main risks that must be handled as a priority by the PPU Division at KAI. The following is a risk analysis and measurement of several previously registered project reviews:

Table III. Risk Analysis & Measurement

Risk Analysis & Measurement of Semarang Project Study	A low passenger volume is a top priority for this project. This is due to the possibility of a passenger shortage based on projected data in the Semarang project study conducted by the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia. According to data obtained from the company, the potential passengers from this project were only 1.953.333 passengers/year, which is still a very small number when compared to other project studies in the PPU Division of PT KAI (Persero). From the risk analysis & measurement table above, it can also be concluded that the higher the priority for a risk, the more priority the mitigation of that risk must be. That is because if the risk is left alone, it can have a bad impact on the company.
Risk Analysis & Measurement of Bogor Project Study	Based on the risk analysis and measurement data, resistance from residents in the construction area is a major risk for this project. This is due to the possibility of protests from residents in the construction area because the project line to be built is a new track, and the area to be built for a new rail line necessitates the company acquiring land. According to the information that the author obtained from the company, land acquisition is a difficult task for PT Kereta Api Indonesia (Persero) because it is more expensive than land control. Land acquisition is more difficult for PT KAI (Persero) to carry out because the land is an asset of local residents, as opposed to controlling land, which means that KAI still owns the assets of

	the project area under study. This means that, based on the risk analysis and measurement table above, the higher the priority for a risk, the higher the priority for risk mitigation. This is because if the risk is ignored, it can have a negative impact on the company.
Risk Analysis & Measurement of Bandung Project Study	Based on the risk analysis and measurement data in, resistance from residents in the construction area is a major risk for this project. This is due to the possibility of protests from residents in the construction area because the project line to be built is a new track, and the area to be built for a new rail line necessitates the company acquiring land. According to the data obtained from the company, land acquisition is a difficult task for PT Kereta Api Indonesia (Persero) because it is more expensive than land control, especially in the Bandung area, which has a densely populated population, adding to the difficulty. Land acquisition is more difficult for PT KAI (Persero) to carry out because the land is an asset of local residents, as opposed to controlling land, which means that KAI still owns the assets of the project area under study. This means that, based on the risk analysis and measurement table above, the higher the priority for a risk, the higher the priority for risk mitigation. That is because if the risk is left alone, it can have a bad impact on the company.
Risk Analysis & Measurement of Bali Project Study	Based on the risk analysis and measurement data, a low passenger volume is a top priority for this project. This is due to the possibility of a passenger shortage based on projected data in the Bali project study conducted by the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia. According to data obtained from the company, the potential passengers from this project were only 2.960.730 passengers/year; however, this figure is still very small when compared to the capital spent on this project, which was approximately 3.3 trillion Rupiah. From the risk analysis & measurement table above, it can also be concluded that the higher the priority for a risk, the more priority the mitigation of that risk must be. That is because if the risk is left alone, it can have a bad impact on the company.

Source: Author Analysis

C. Risk Evaluation. The goal of risk evaluation is to help make decisions. Risk evaluation involves the results of a risk analysis with established risk criteria to determine the additional actions required (ISO 31000:2018). Risk evaluation assists in determining the significance of risk and deciding whether to accept a specific risk or take action to prevent or minimize it. In addition to the level of risk in the risk analysis, risk evaluation considers the company's values, goals, or objectives. Risks can be classified into several classes in this analysis by knowing each level of impact and potential risk. These classes are extreme, high, tolerable, low, and very low. It then employs a color-coded matrix to depict the various levels of risk. The table below is a summary of the risk level map of each project study in the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero).

Table IV. Risk Evaluation

Risk Evaluation of Semarang Project Study	The authors can evaluate the following based on the risk mapping of the Semarang project study: (1) risk factor is classified as Extreme risk. That is, high probability and high impact risks can harm and threaten the business. Companies must use their resources to minimize risk as much as possible while maximizing profit opportunities. (2) 4 risk factors that are classified as High risk. This means that the risk is likely to have a negative impact on the business. (3) risk factors are classified as Tolerable risk. This indicates a risk with a low probability and a manageable impact on the business. (4) 2 factors are classified as Low risk. That is, risks with low probability and impact do not necessitate critical action because meaningful actions requiring large resources are avoided. This action is taken in response to risks that have a low (not significant) overall risk level for the company so that when they are addressed, the costs are not disproportionate to the benefits.

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	(5) Only 2 factors are classified as Very Low risk. That is, the company only needs to accept risk with a very low probability and impact.
Risk Evaluation of Bogor Project Study	The authors can evaluate the following based on the risk mapping of the Bogor project study: (1) risk factor is classified as Extreme risk. That is, high probability and high impact risks can harm and threaten the business. Companies must use their resources to minimize risk as much as possible while maximizing profit opportunities. (2) 3 risk factors that are classified as High risk. This means that the risk is likely to have a negative impact on the business. (3) 4 risk factors are classified as Tolerable risk. This indicates a risk with a low probability and a manageable impact on the business. (4) 1 factor is classified as Low risk. That is, risks with low probability and impact do not necessitate critical action because meaningful actions requiring large resources are avoided. This action is taken in response to risks that have a low (not significant) overall risk level for the company so that when they are addressed, the costs are not disproportionate to the benefits. (5) Only 3 factors are classified as Very Low risk. That is, the company only needs to accept risk with a very low probability and impact.
Risk Evaluation of Bandung Project Study	The authors can evaluate the following based on the risk mapping of the Bandung project study: (1) 2 risk factors are classified as Extreme risk. That is, high probability and high impact risks can harm and threaten the business. Companies must use their resources to minimize risk as much as possible while maximizing profit opportunities. (2) 2 risk factors that are classified as High risk. This means that the risk is likely to have a negative impact on the business. (3) 6 risk factors are classified as Tolerable risk. This indicates a risk with a low probability and a manageable impact on the business. (4) Only 2 factors are classified as Very Low risk. That is, the company only needs to accept risk with a very low probability and impact.
Risk Evaluation of Bali Project Study	The authors can evaluate the following based on the risk mapping of the Bali project study: (1) 1 risk factor is classified as Extreme risk. That is, high probability and high impact risks can harm and threaten the business. Companies must use their resources to minimize risk as much as possible while maximizing profit opportunities. (2) 3 risk factors that are classified as High risk. This means that the risk is likely to have a negative impact on the business. (3) 6 risk factors are classified as Tolerable risk. This indicates a risk with a low probability and a manageable impact on the business. (4) 1 factor is classified as Low risk. That is, risks with low probability and impact do not necessitate critical action because meaningful actions requiring large resources are avoided. This action is taken in response to risks that have a low (not significant) overall risk level for the company so that when they are addressed, the costs are not disproportionate to the benefits. (5) Only 1 factor is classified as Very Low risk. That is, the company only needs to accept risk with a very low probability and impact.

Source: Author Analysis

The authors will then carry out the process of providing risk mitigation strategies for risks that they believe need to be mitigated based on all the risk mapping that the author has done above. In this research, the risk with a low-extreme level necessitates the use of a mitigation strategy. Because this risk does not significantly impact the company's sustainability, a very low level is not required. The author will carry out the details of providing risk mitigation strategies for each list of risks listed below.

D. Risk Mitigation. Risk mitigation is known as developing options and actions to increase opportunities and reduce threats to project objectives. The process of carrying out risk mitigation actions by developing and selecting risk action options, as well as planning and implementing risk mitigation, is known as risk mitigation implementation. This stage involves the Manager of the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero) for risks that significantly impact the company, as well as allocating risk management resources. Risk management, in essence, is an effort to reduce the impact of risk and the possibility of the risk occurring. Risk mitigation will depend on several factors, including costs and benefits, effectiveness, and other criteria relevant to the organization. In this research, the author will also develop a contingency plan for each risk identified in the project study. A contingency plan is a system or work program capable of integrating activities or action efforts in an appropriate, fast, safe, and controlled manner with the

support and capabilities of companies and related agencies with available facilities (Suryo, 2017). The authors will then submit this mitigation strategy to the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero) as a strategy that PT KAI (Persero) can implement when the project is being and has been built. The mitigation strategy that the authors have provided is expected to reduce the level of possibility and impact of each risk. The mitigation strategy provided by the author is based on the characteristics of each project, the risk level of each list of risks, and the types of risks faced. A higher level of risk will be mitigated by a more detailed and complex strategy than a list of lower-level risks. It is hoped that the mitigation strategies provided will be effective in lowering the level of potential risks as well as the impact of each project's risks. Because of the lower level of risk, it is hoped that the project will run more smoothly and provide better results for the company once implemented.

4.3 Implementation Plan & Justification

After completing all risk management processes up to the mitigation stage for each risk identified during the project review at PT Kereta Api Indonesia (Persero), the author will reassess each risk assigned a mitigation strategy in this section. This sub-chapter demonstrates how effective it is to provide a mitigation strategy to reduce the likelihood and impact of each risk that may occur in the project being studied by PT KAI's PPU Division (Persero). The authors will then analyze which project is the most reliable to run and has the lowest level of risk based on the decrease in the level of probability and impact. Below is an assessment of the effectiveness of risk mitigation strategy implementation in reducing risk levels. The author experiences limited time in conducting research, so the stage of this research is only up to the submission of mitigation strategy proposals to related parties, not until the implementation process for each project in the PPU Division of PT KAI (Persero).

Table V. Risk After Implementation Mitigation

Risk After Implementation Mitigation of Semarang Project Study	The mitigation strategy applied to each risk in the PT Kereta Api Indonesia (Persero) Urban Transportation Business Development Division (PPU) project has an effective effect on reducing the risk level of each list of risks, as shown in the table above. After risk mitigation, the highest risk level for this project is High. Numerous lists of risks have a high probability and impact prior to mitigation. Following risk mitigation, the author discovered that there were no risks at the Extreme level, only 1 at the High level, and the rest at the Tolerable, Low, and Very Low levels. The risks still at a high level are risks that the company needs to pay more attention to reduce the possibility of their occurrence and avoid negative consequences. The author hopes to be able to describe and provide suggestions regarding what mitigation strategies the company can implement to make this project have a low-risk profile and contribute to donating profits for the company with this after the mitigation plan analysis. The table below depicts the implementation of risk after it has been mitigated.
Risk After Implementation Mitigation of Bogor Project Study	According to the table above, the mitigation strategy used for each risk has a very effective effect on lowering the risk level of each list of risks in the PT Kereta Api Indonesia (Persero) Urban Transportation Business Development Division (PPU) project, as there is a risk level that drops to 2 levels. After risk mitigation measures have been implemented, the highest risk level for this project is Tolerable. Numerous lists of risks have a high probability and impact prior to mitigation. Following risk mitigation, the author discovered that there were no risks at the Extreme level, only 2 at the Tolerable level, and the remainder at the Low and Very Low levels. The risks on the list that are still at the Tolerable level are risks that the company needs to pay more attention to reduce the possibility of their occurrence and avoid negative consequences. The authors hope to be able to describe and provide suggestions regarding what mitigation strategies the company can implement to make this project have a low-risk profile and contribute to donating profits for the company with this after the mitigation plan analysis. The table below depicts the implementation of risk after it has been mitigated.

Risk After Implementation Mitigation of Bandung Project Study	According to the table above, the mitigation strategy used for each risk has a very effective effect on lowering the risk level of each list of risks in the PT Kereta Api Indonesia (Persero) Urban Transportation Business Development Division (PPU) project, as there is a risk level that drops to 2 levels. After risk mitigation measures have been implemented, the highest risk level for this project is Tolerable. Numerous lists of risks have a high probability and impact prior to mitigation. Following risk mitigation, the author discovered that there were no risks at the Extreme level, only 2 at the Tolerable level, and the remainder at the Low and Very Low levels. The risks on the list that are still at the Tolerable level are risks that the company needs to pay more attention to reduce the possibility of their occurrence and avoid negative consequences. The authors hope to be able to describe and provide suggestions regarding what mitigation strategies the company can implement to make this project have a low-risk profile and contribute to donating profits for the company with this after the mitigation plan analysis. The table below depicts the implementation of risk after it has been mitigated.
Risk After Implementation Mitigation of Bali Project Study	According to the table above, the mitigation strategy used for each risk has a very effective effect on lowering the risk level of each list of risks in the PT Kereta Api Indonesia (Persero) Urban Transportation Business Development Division (PPU) project, as there is a risk level that drops to 2 levels. After risk mitigation measures have been implemented, the highest risk level for this project is High. Numerous lists of risks have a high probability and impact prior to mitigation. Following risk mitigation, the author discovered that there were no risks at the Extreme level, only 1 at the High level, and the remainder at the Tolerable, Low and Very Low levels. The risks on the list that are still at the High level are risks that the company needs to pay more attention to reduce the possibility of their occurrence and avoid negative consequences. The authors hope to be able to describe and provide suggestions regarding what mitigation strategies the company can implement to make this project have a low-risk profile and contribute to donating profits for the company with this after the mitigation plan analysis. The table below depicts the implementation of risk after it has been mitigated.

Source: Author Analysis

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusions

1. Potential risks in each study of the Urban Transportation Business Development Division (PPU) projects at PT Kereta Api Indonesia (Persero) are divided into 5 types of risks, namely Financial, Operational, Political, Social, and Internal. Finance has 5 different risk lists, Operational has 2 different risk lists, Political has 1 risk list, Social has 2 different risk lists, and Internal has 2 different risk lists. There are 4 project studies from the PPU Division at PT KAI (Persero) that the author examined in this final project, namely project studies in Semarang, Bogor, Bandung, and Bali. In the Semarang and Bali project studies, the most prioritized risk is the financial risk which involves small passenger volumes. For the study of the Bogor and Bandung projects, the most prioritized risk is the social risk which contains local residents' rejection of the construction area.

2. Risk assessment in each project study of the Urban Transportation Business Development Division (PPU) at PT Kereta Api Indonesia (Persero) is using external analysis with PEST analysis, internal analysis with the McKinsey 7S Framework, Forum Group Discussion (FGD) with managers- related party, and the authors' own analyzes using the Enterprise Risk Management (ERM) approach.

3. The mitigation plan is based on the classification of the level of risk, a higher level of risk will be treated differently with a lower level of risk. Based on the results of the analysis, there are 12 risk factors for each risk study of the Urban Transportation Business Development Division (PPU) projects at PT Kereta Api Indonesia (Persero). If all projects are combined, there are 5 risks at the Extreme level, 12 risks at the High level, 19 risks at the Tolerable level, 4 risks at Low

level, and 8 risks at Very Low level. After mitigation, the risk level is reduced to only 2 risks at the High level, 7 risks at the Tolerable level, 24 risks at the Low level, 15 risks at the Very Low level, and there is no risk at Extreme Level.

5.1.1 Implications

1. Theoretical Implications. The author hopes that this study will provide an overview of the stages involved in analyzing company risk. The author hopes that by understanding the system and the stages of risk management analysis, PT KAI (Persero) will be able to identify more targeted risks.
2. Practical implications. This research is expected to contribute to project studies conducted at the Urban Transportation Business Development Division (PPU) of PT Kereta Api Indonesia (Persero) in the form of awareness of risks that have the potential to occur in project work or when the project is carried out. This risk analysis is expected to be one of the benchmarks in the decision-making process of PT KAI (Persero) officials to realize the project that has been studied.
3. Managerial Implications. This research impacts adding stages to the review system usually carried out by the PPU division of PT KAI (Persero) in its work system. This risk mitigation stage is a stage that the management of PT KAI (Persero)'s PPU division can add to the company's business development project planning process to make it more reliable and easier for the directors to make decisions.

5.2 Recommendation
5.2.1 Recommendation for the PPU Division of PT. KAI (Persero).

1. The researcher suggests that the PT KAI (Persero) PPU division incorporate risk management analysis into the business development project review it is conducting to determine whether the project is feasible to run or not based on the risk analysis.
2. Based on their findings, the author recommended that the PPU division of PT KAI (Persero) consider the Bogor project. Because according to the research, this project's risk level is low and can potentially help PT KAI (Persero) business development.

5.2.2 Future Research.

1. The author recommends expanding the research sample to cover all lines of business development at PT KAI (Persero), specifically the asset development division and the development of the freight transport business as its research object for future research.
2. Because the purpose of this study is only to examine the negative risks, the author suggests that additional research be conducted to examine the positive risks of each of these projects to determine the potential of the projects under consideration.
3. To obtain a more detailed risk analysis, future studies can incorporate risk action plan stages into their research methods.

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