

# Design of Key Risk Indicators in Risk Management at PT Pembangkitan Jawa Bali Services (PT PJB Services)

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## ABSTRACT

The purpose of this research is to design a model and matrix of key risk indicators (KRI) for the company's significant risks, and to design a process for its implementation in the company's risk management process. This research is a case study at PT Pembangkitan Jawa Bali Services that engaged in the electricity sector, especially in the field of operation and maintenance of power plants. The methods used are quantitative and qualitative (both methods). Analysis and design of KRI is carried out in the form of determining risk roots, monitoring indicators, as well as thresholds for significant risks that affect and have the potential to thwart the achievement of the company's targets and objectives as stated in its key performance indicators. These significant risks were identified from the strategic risk elaboration set by the company in the risk management guidelines for 2021, including the risk of losing out in the competition for new customers non-PLN group and the risk of the company's receivables aging rate being high which can lead to financial instability. The design of the KRI is expected to help the company to carry out the monitoring process, especially to events that are an indication of the occurrence of a risk. Based on early warnings and information from KRI, the company can take various mitigation actions earlier to reduce the possibility of risk events and impacts caused by these risks.

**Keywords:** Key Risk Indicators; Significant Risk; Risk Management, Key Performance Indicators, Probability.

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## I. INTRODUCTION

Electricity is one of the important branches of production needed for the livelihood of many people. Almost all human activities cannot escape the need for electrical energy, the Government of Indonesia takes a role in fulfilling the responsibility through the establishment of PT PLN (Persero) as the only electric power provider company that is given the rights and responsibilities to manage and distribute electricity. The responsibility of PT PLN (Persero) in meeting the national electricity demand is not easy. To support efforts to meet the national electricity demand, PT PLN (Persero) divides roles with its subsidiaries. In this division of roles, PT PLN (Persero) is responsible for the transmission and distribution while the production of electricity is handed over to its subsidiaries, namely PT Indonesia Power and PT Pembangkitan Jawa Bali (PT PJB).

PT Pembangkitan Jawa Bali (PT PJB) as a subsidiary of PT PLN (Persero) has developed its business line from only managing its own assets to becoming a service provider in the field of plant operation and maintenance through a subsidiary company known as PT Pembangkitan Jawa Bali Services (PT PJB Services) which was established on March 30, 2021 as a form of expansion and addition to the company's business portfolio.

PT Pembangkitan Jawa Bali Services (PT PJB Services) targets the operation and maintenance of power plants not only at the plants owned by PLN as an assignment, but also targets the Independence Power Producer (IPP) as a form of contribution within the framework of the goal of meeting national electricity needs and accelerating achievement revenue outside the PLN group. The company's focus is dominated by market share obtained from the assignment of the parent company, while on the IPP market side it has not been explored optimally. Along with changes in environmental conditions, the data shows a change in trend from 2015 to 2019 in the market share of electricity providers, namely the PLN Group market share, which decreased, while IPP experienced growth. This makes the position of PT PJB Services even more threatened.

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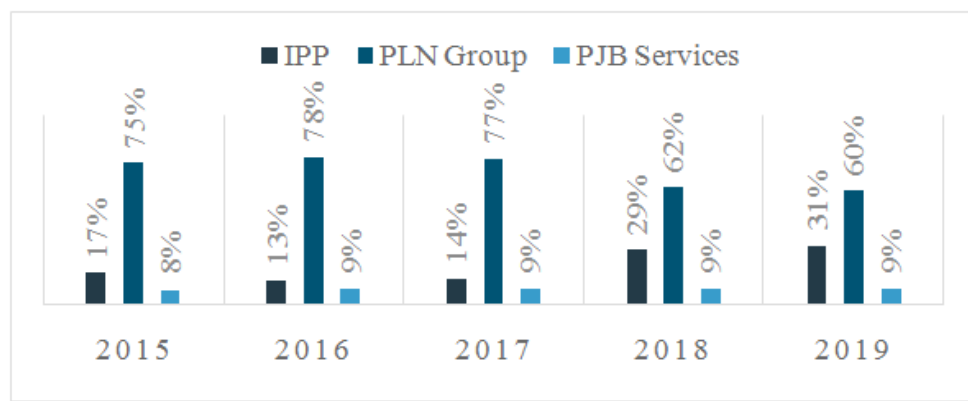


Figure 1. Market Share PT PJB Services.

PT PJB Services faces uncertainties that can hinder the achievement of the set targets. The implementation of risk management in companies has been carried out since 2010 with the establishment of the risk management and environmental, health and safety (LK3) division which aims to introduce a risk-aware culture by promoting strategies and a comprehensive approach to managing risk in companies using integrated and systematic efforts from all functions risk management and placing shared responsibility for all risk owners including top management and business units (COSO, 2017) in all generating units and support divisions in PT PJB Services.

According to COSO (2017) One of the important things to implement in the ERM process is the application of key risk indicators or key risk indicators which aim as indicators and early warning systems to find out an event that has a significant impact on the company. The goal is that companies can immediately take mitigation actions, so that things that can cause business failure can be avoided or their impact minimized.

Based on the identification of the company's strategic risk profile in 2022 coupled with the achievement of financial performance in the first quarter of 2022, there are at least several factors that influence the company's non-achievement of performance, namely PT PJB Services' market share is no longer growing, along with the declining market share of the PLN Group, then the capacity, the flexibility and capability of resources is not enough to support business sustainability, market expansion, business models and new technologies, as well as the high aging rate of company receivables which causes financial condition instability.

Based on the explanation above, the research aims to identify Key Risk Indicators (KRI) regarding significant risks based on the risk profile of PT PJB Services as a design indicator for early warning of risks that can hinder the company in achieving its goals and help company management make more quick informed decisions and precise.

## II. LITERATURE REVIEW

### 2.1. RISK MANAGEMENT

Darmawi (2006) states that the basic concept of risk management that can be understood by company management is risk management as a flexible strategic approach so that it can be applied to various industrial scales, through efforts to identify, analyze and control risks in every company activity with the aim of obtain higher effectiveness and efficiency.

Moeller (2011) believes that every choice of decision taken by the company, either directly or indirectly, will invite various potential risks and how they are able to manage them to increase the relevance and level of trust of the resulting information to all stakeholders by thinking strategically which directs the company to various choice. Traditional risk management tends to occur in different forms or independently between departments or business units within one organization or company (silos). This resulted in the emergence of various issues or problems in the risk management process. Common issues in traditional risk management include differences in languages and frameworks, measurement criteria, and reporting processes used between the various departments and business units in managing risk. In addition, there are overlapping and multiple risk management issues that lead to redundancy and inefficiency (COSO,2017).

The enterprise risk management (ERM) approach is here to respond to these issues, risk management using ERM uses an integrated approach and uses the same language and framework, measurement criteria, and reporting processes for interdepartments and business units within an organization or company this will assist comprehensive and systematic risk control so that it can help the organization achieve its goals (COSO, 2017).

## 2.2. COSO ERM FRAMEWORK

COSO ERM 2017 has seen how a company's management arrangements need management that can adapt to changing situations and conditions, as an initial action to be able to increase the level of quality and capability of the company in the long term. The COSO framework guidelines have developed comprehensively to assist companies in their operations, especially in the digitalization era which requires companies to be able to have a variety of alternative strategic options by continuously adapting them on a regular basis (Pamungkas, 2009). In COSO ERM 2017 issued by the Committee of Sponsoring Organizations of the Treadway Commission, (2017) it has five basic components supported by twenty ERM principles to assist company leaders in analyzing and managing a risk to become a reliable potential to improve company performance in a sustainable manner.



Figure 2. Framework COSO ERM (2017)

The company will continue to face volatility, complexity and various uncertainties on an ongoing basis in the future, the role of risk management within the company is a very important factor to increase the company's resilience through reliable and quality strategies to produce superior company performance so that it can align with the vision, mission and goals of the company.

## 2.3. KEY RISK INDICATOR

Key risk indicators (KRI) are metrics or indicators that can indicate exposure, loss or so-called "problems". Everything that can perform a function can be considered as an indicator of risk. Indicators become a key when tracking an event that is very important, or an indicator that plays a very good and suitable role in doing so, at operational risk itself can be defined as the risk of loss due to processes, systems, human performance, or external events that are not sufficient or fail (Strachnyi., 2015).

Beasley, Branson and Hancock (2010) argue that KRI can be divided into two approaches, namely leading KRI and lagging KRI. The definition of leading KRI is a calculation that uses a predictive approach derived from a matrix that can help predict future events, while lagging KRI is a matrix that uses an approach from historical data to help identify organizational or company trends.

Kountur (2021) states that strategy is a way to achieve targets in each unit at every level within the organization which has its own strategy to achieve the targets that have been set. These targets are expressed in the form of key performance indicators (KPI). The strategy used to achieve this KPI is also known as the initiative strategy, where each of these strategies contains risks. thus there must be an event to identify these risks, because if the risk is allowed then the strategy initiative that has been made will no longer be effective, an alternative strategy is needed which is known as a strategy response or contingency plan. Therefore, to find out the risk that will occur, you can determine the KRI.

In identifying KRI as the first part that needs to be considered is the concept that is, the organization or personal must know what the company's goals are. Furthermore, it is also necessary to know what risks can potentially hinder the achievement of goals and objectives. After knowing the risks, it is necessary to identify which are included in the key risks, namely the risks that are most significant and most decisive and have an

impact on achieving targets. If the key risks are known, the next step is to find the root cause or root causes that trigger the occurrence of these key risks. The next step is to find out what indicators can be used as measuring tools in assessing or controlling how much influence the causes of this risk have on the emergence of existing key risks. After determining these risk indicators, the next stage can be identification of which risk indicators are considered key or which risk profile has the most available data and is most relevant to the risk cause. If all of these things have been carried out and carried out, the final result can be determined as KRI (COSO, 2017).

If a company chooses to run with too many metrics, managing them will be resource-intensive and time-consuming, and will result in too broad and stretched information for management. However, if too few metrics are selected to run, the decision-making process will become very difficult due to the lack of comprehensiveness of important information that can be collected and known. Metrics require goals, targets, interpretations and reporting structures. Metrics can only have a function if the values can be measured, because companies cannot control something that cannot be measured (Hanggraeni, 2016).

### **III. RESEARCH METHODS**

This study focuses on analyzing significant risks and designing a mitigation process for its application to the implementation of corporate risk management. The data to be used in this research is mixed data (primary data and secondary data). The research location was carried out at PT PJB Services with research time for data collection starting from October to December 2022.

At the field study stage, observations were made, namely by analyzing the problems that existed at the PT PJB Services Head Office, more precisely at the Risk Management Sub-Directorate, from the analysis carried out, a problem was found in the application and identification of key risk indicators for 2022 for an early warning system that did not yet exist.

Data collection is carried out in accordance with the risk management process, namely direct risk identification by making observations, recapitulating risk owner data, reports and notes owned by the risk owner and direct communication with the risk owner as the main or key risk stakeholder at PT PJB Services. The data obtained is then processed, starting from the risk profile or risk causes of PT PJB Services 2022 to be identified and designed to become Key Risk Indicators.

Data processing is carried out in the first stage, namely risk assessment with identification of key risks using a root cause approach for both internal and external key risks. The results are then confirmed to the head of the directorate or business unit (risk owner). The second stage is designing to determine the main cause monitoring indicators, namely by determining data sources or company reports, tracking and determining risk limits or thresholds, and the escalation process which is the process of determining notifications based on the thresholds set by the company. The last stage is designing and calculating key risk indicators assessment metrics.

### **IV. ORGANIZATION PROFILE**

PT Pembangkitan Jawa Bali Services (hereinafter referred to as PT PJB Services) is a subsidiary of PT PJB (Pembangkitan Jawa Bali), which was established to meet the needs of a line of business in providing operation and maintenance services for power generation units. At present, the Company has managed generating units spread across more than 30 locations in Indonesia and carries out project service work for more than 100 jobs each year.

The company as an armlength shareholder in the field of Operating & Maintenance (O&M) services is reflected in the revenue contribution from the assignment of O&M services and project services which reach 90% of total corporate revenue and a portfolio of companies that have experience in O&M of coal-fired power plants. Along with the disruptive electricity trend known as 3D (Decarbonization, Decentralization & Digitalization), the company is currently exploring the market for new renewable energy generators and to encourage competitiveness, the company continues to expand its market in the unregulated market segment. The company's revenue target from the unregulated market reaches 30% of total corporate revenue in 2025. This is in line with PT PLN (Persero)'s SOLID portfolio mission, especially for the mission of Increasing Profit Contribution and Developing New Edge.

In carrying out the direction of future development, the company formulates the company's vision as follows, namely "To become a trusted sustainable power generation and energy management company". A trusted company is identified through high performance and optimal growth. In addition, the company will also focus on realizing its mission of realizing the brand as a "Hospital for Power Plant" to improve the performance of the power plants it manages.

In order to achieve this vision, the company also formulates its mission as follows:

1. Implementing best practice power plant asset management systems and their supports with international standards for customer satisfaction.

2. Optimizing the management of company resources in order to improve the performance and expectations of stakeholders

3. Managing business continuity and contributing positively to environmental sustainability through the management of new and renewable energy generators.

Operation and Maintenance Services for power generation units is the core business of PT PJB Services where the scope of this product is the management of power plants and their supporting resources to provide electrical energy in a safe, reliable, efficient and high quality process. PT PJB Services has more than nineteen years of experience and manages thirty-five units of power plants, both thermal and hydro, spread throughout Indonesia with a total capacity of 5,273 Megawatts. The generation governance system is an advantage in managing power plants that can create measurable positive values and results for the company.

## **V. RESULT AND DISCUSSION**

Referring to the company's risk profile review document, at least there are several top risks that are mapped and categorized including significant risks that have the potential to affect and fail the achievement of company goals. These risks include:

1. Unable to compete in the competition for new non-PLN group customers due to PT PJB Services' uncompetitive pricing and product flexibility in meeting customer needs and competing in the generation market resulting in the failure to achieve the target of attracting new customers and maintaining customer loyalty.

2. The high rate of maturity of the company's receivables causes financial condition instability, resulting in disruption of business processes.

The two risks above significantly affect the achievement of company performance in the first half of 2022, therefore the design of KRI in this study will focus on the two risks above. The risk of being unable to compete in the competition for new non-PLN group customers has a serious impact on the company. Based on the management report for the second quarter of 2022, indicators for achieving goals, especially income outside the PJB group, are still at 93.89% of the target set at 256.9 billion rupiah.

No	Lima Prioritas BUMN	Satuan	Bobot	Target		Realisasi s.d Juni	Pencapaian s.d Juni	NKO s.d Juni
				RKAP 2022	s.d Juni			
<b>A</b>	<b>Nilai Ekonomi Sosial</b>		42					35,01
1	Pendapatan dari PLN Group	Rp M	10	1.987,96	897,90	730,15	81,32	8,13
2	Pendapatan diluar PLN Group	Rp M	8	256,92	118,59	111,35	93,89	7,51
3	Rasio Fixed Cost terhadap Pendapatan	%	8	44,51	44,51	45,97	96,72	7,74
4	EBITDA	Rp M	8	233,71	115,47	118,57	102,69	8,21
5	Collection Periode	Hari	8	75	75	118	42,67	3,41
<b>B</b>	<b>Inovasi Model Bisnis</b>		17					17,00
1	Maturity Level Internal Proses Bisnis Project PJBS	%	7	100%	100%	100%	100,00	7,00
2	Maturity Level Internal Proses Bisnis Manajemen Aset PJBS	%	7	100%	100%	100%	100,00	7,00
3	Customer Satisfaction Index (CSI)	Skor		85,00	NA			
4	Implementasi ERM	Level	3	3,00	2,50	2,94	117,60	3,30
<b>C</b>	<b>Kepemimpinan Teknologi</b>		19					18,89
1	Pencapaian SLA O&M							
	a. Unit Luar Jawa Performance Base	%	4	100,00	100,00	97,21	97,21	3,89
	b. Unit Luar Jawa AMC	%	4	100,00	100,00	96,03	96,03	3,84
	c. IPP (PLTA Asahan, PLTU Banjarsari)	%	4	100,00	100,00	99,00	99,00	3,96
2	Pencapaian SLA Project	%	7	100,00	100,00	102,80	102,80	7,20
3	Rating Perusahaan	Rating		5A2	NA			
<b>D</b>	<b>Pengembangan Investasi</b>		8					8,80
1	Jumlah kontrak baru	Rp M	8	183,60	91,80	131,07	142,78	8,80
<b>E</b>	<b>Pengembangan Talenta</b>		6					6,60
1	Human Capital Readiness	%	3	100	100	153,23	153,23	3,30
2	Organizational Capital Readiness	%	3	100	100	177,92	177,92	3,30
	<b>Nilai Pengurang</b>							
	Kepatuhan pada K3LH (Kesehatan, Keselamatan & Lingkungan Hidup)	Maks -10						
	<b>TOTAL</b>		92					94,12

Figure 3. Achievement of Key Performance Indicators of PT PJB Services (2022)

The risk of unachieving the revenue target outside the PJB group is getting bigger, one of which is due to the decrease in the target of cooperation agreements with customers because they cannot compete with competitors. There are many causative factors that can be evaluated, one of which is related to the lack of competitive prices and product flexibility to meet customer needs. Therefore, this situation is a concern that must be considered by the management of PT PJB Services in future business processes to achieve the set goals and objectives.

Referring to the previous significant risks, a KRI will be designed that can help companies to provide early warning of increased risk exposure. KRI will be designed with a focus on using leading indicators because they can help predict an increase in risk exposure in the future.

Indicators will be designed based on the company's risk appetite as outlined in the PT PJB Services risk management guidelines. On the other hand, the determination of KRI also uses several sources of information found from journals or previously conducted studies to obtain different and more varied points of view, processed historical data trends with reinforced assessments from the risk owner as a professional. The KRI framework is needed as a reference for conducting a comprehensive KRI monitoring process. The author designed a framework for implementing KRI at PT PJB Services with the following stages:

1. Identify KRI indicators related to significant risks.
2. Determine the level of tolerance and threshold for KRI.
3. Periodically monitor, report and escalate KRI.
4. Establish a risk mitigation plan to manage risks with increased exposure.
5. Ensuring the specified mitigation plan is implemented.
6. Conduct periodic evaluations of KRI frameworks, indicators and thresholds.



This framework is structured as a continuous and integrated with inseparable process. An overview of the KRI framework at PT PJB Services shown in below.

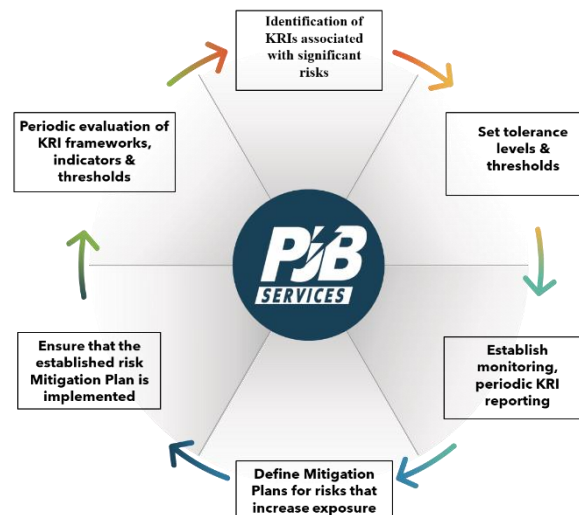


Figure 4. Adaptation Framework KRI (Strachnyi,2015)

### **5.1 KRI FOR THE RISK OF LOSING COMPETITIVENESS IN THE COMPETITION WITH NEW CUSTOMERS NON-PLN GROUP**

In the dynamic nature of the electricity industry, companies face threats from emerging competitors. Based on the group discussion forum conducted with the risk management and compliance division of PT PJB Services, several main causes emerged that significantly influenced these risks, including:

1. Uncompetitive pricing to compete in the market

PT PJB Services is still dominant in pursuing and relying on market share within the PLN Group, even though it has tried to explore markets outside the group it has not yet gotten the desired results, it needs a strategic approach and pattern in determining the right costs in order to produce competitive price formulations so that in the future in achieving and gain new market share costing can be calculated carefully which can successfully win price competition especially outside the PLN Group.

The KRI threshold for non-competitive price rates is calculated by comparing the actual new work contracts with the number of bids issued in a certain period of time. A new work contract will be obtained after the price offer letter has received a response and is approved by the user or prospective customer. Based on the company's risk appetite in accordance with RACM the level of impact of negative deviation from contract performance, it can be mapped that the threshold for this KRI is for the realization of new contracts only  $\geq 90\%$  up to  $\leq 100\%$  of the target issuance price offer letter is included in the low classification, the realization of contract acquisition only  $\geq 80\%$  to  $< 90\%$  of the target price offer letter issuance is included in the moderate classification, the realization of obtaining a new contract  $< 80\%$  of the target price offer letter issuance is included in the high category. The data that will be taken to carry out monitoring of the KRI is a monitoring report on the issuance of price offer letters and monitoring of new contracts.

2. Products are less flexible in accommodating customer needs

Service products are any actions or actions that can be offered by one party to another which are basically intangible and do not result in the ownership of anything. In operation and maintenance services, it plays the most important role as the largest contributor to the company's revenue, namely 78% with the remainder obtained from project work income and others. The expected indicators of product requirements and expectations are to be able to create quality products in accordance with the terms of the contract and the best service (service level agreement or SLA) for example reliable Equivalent Availability Factor (EAF) measurements, minimal Equivalent Force outage Rate (EfoR), Net Plant Heat Rate (NPHR) increases, environmental proper and zero accident.

The company is also developing a variety of new product mixes where to meet customer needs and accelerate the achievement of company goals, standardization of each product must be established so that it remains in line with the expectations and needs of these customers. The KRI threshold for products that are not well received by customers is calculated by comparing the actual number of customer satisfaction with the target number of customer satisfaction in the key performance indicator (KPI). Based on the company's risk appetite in accordance with the RACM, the level of impact of negative deviations from the results of achieving customer satisfaction can be mapped out. the customer satisfaction score is only  $\geq 80\%$  to  $< 90\%$  of the target customer

satisfaction score in the moderate category, the actual achievement of the customer satisfaction score is only < 80% of the target customer satisfaction score in the high category. The data taken is monitoring data on customer satisfaction figures from the marketing division.

3. The marketing strategy has not been agile to support business growth

PT PJB Services trade relies heavily on a focused word of mouth approach as part of the promotion of its services. The main goal of pull marketing is to get customers to come to the company as a provider of operations and maintenance services. From a business perspective, pull marketing is an effort to create loyalty and make consumers come back to entrust their work to the executing entity, in this case PT PJB Services. In this method, the general sales tactics used include promotion through the mass media, targeted word of mouth, and selling through advertising.

The KRI threshold for a marketing strategy that is not yet optimal is calculated by comparing the actual achievement of the marketing strategy program with the target of the marketing strategy program. Based on the company's risk appetite in accordance with the RACM, the level of impact of negative deviations from the achievement of the realization of the marketing strategy program can be mapped out. the achievement of the marketing strategy program is only  $\geq 80\%$  to  $< 90\%$  of the marketing strategy program target in the moderate classification, the actual achievement of the marketing strategy program is only  $< 80\%$  of the marketing strategy program target is included in the high classification. The data taken is management report data related to the main corporate programs, especially the sub-directorate of marketing and business development.

4. The availability of human resources and their competencies has not yet supported the accelerated pace of business development.

The availability factor of the number and productivity of human resources is key for the company in responding to customer needs especially in this case PT PJB Services is a service company that must be demanded to be reliable and competent for its employees. Since the implementation of zero growth by the parent entity, in this case PT PLN Persero, the company has practically not carried out recruitment since 2018. This has had a lot of impact on the company because to accelerate the achievement of its goals the company needs human resources to regenerate in responding to these challenges.

The KRI threshold for limited resources and human resource competencies is calculated by comparing the actual proportion of position requirements and positions in the organizational structure with the number of formations filling the workforce. Based on the company's risk appetite in accordance with the RACM, the level of impact of negative deviations from achieving the realization of filling in workforce formations can be mapped, the threshold for this KRI is for the actual proportion of position requirements and organizational structure positions if there are replacements or cadres and are only ready to restore lost or vacant HR capacity within a period of 1 month to 6 months from the number of formations for filling in the workforce included in the low classification, the actual proportion of the need for positions and positions in the organizational structure if there is a replacement or cadre and is only ready to restore lost or vacant HR capacity within a period of 6 months to with 12 months from the number of workforce filling formations included in the moderate classification, the actual proportion of the need for positions and positions in the organizational structure if there are replacements or new cadres ready to restore lost or vacant HR capacity within  $> 12$  months of the total the formation of manpower filling is included in the high classification. The data taken is management report data related to the main corporate programs, especially the sub-directorate of human capital planning and development

Based on the factors above, a KRI and threshold for the risk of being unable to compete in competition with new non-PLN Group customers will be designed (appendix 1).

## **5.2 KRI FOR THE RISK OF THE HIGH ACHIEVEMENT RATE OF COMPANY RECEIVABLES WHICH CAUSES FINANCIAL CONDITION INSTABILITY RESULTING IN DISRUPTION OF BUSINESS PROCESSES**

There were at least a number of issues captured from the risk of high aging receivables, including the existence of a contract novation or addendum due to changes in the corporate transformation of the parent or holding, thus changing the scope or content of the contract which resulted in delays in the process. Apart from that, existing billing is due to the processing of billing documents, which are still mostly manual, requiring wet signatures from stakeholders, so they are less flexible, which causes the duration of time for document completion to be hampered.

Mapping of intermediate causes, root causes and risk indicators used to carry out KRI monitoring for the risk of high aging of receivables which causes the company's financial condition to be unstable. KRI monitoring is only carried out on the root causes regarding the management of billing documents which are still manual so that it requires gradual verification which takes a duration of time.

In total, the settlement of billing documents requires approximately sixteen (16) working days, but in reality, many factors have prevented this target from being achieved. The KRI threshold for high aging of receivables which causes the company's financial condition to be unstable is by comparing the actual attainment



of aging of receivables with the target of achieving the aging of receivables agreed upon and authorized by stakeholders.

Based on the company's risk appetite in accordance with the RACM, negative deviations from the attainment of receivables age can be mapped, the threshold for this KRI is for the realization of receivables aged  $\geq 2$  days to  $< 5$  days from the target attainment of receivables is classified as low, the realization of receivables aged  $\geq 5$  days up to  $< 10$  days from the target of achieving the age of receivables is included in the moderate category, the achievement of age of receivables  $> 10$  days from the target of achieving the age of receivables is included in the high category (appendix 2). The data taken is management report data related to the attainment of aging receivables from the accounting sub-directorate.

### **5.3 KRI MONITORING IMPLEMENTATION PROCESS**

In making decisions, risk owners, top management and the board of directors require a report on a comprehensive summary of KRI and mitigation plans that have been and will be implemented. has been implemented, the risk mitigation plan to be implemented, the time target, and the person who will be responsible for doing it. This executive summary can help risk owners and interested parties to see the overall increase in risk exposure and assist in a fast decision-making process.

In its implementation, the risk management and compliance directorate will update KRI's executive summary report every monitoring period. Completion of the KRI executive summary report will contain the following information:

1. The threshold level column will contain information in the form of documentation related to the threshold from the monitoring results of the previous periods and the most recent monitoring period. In this column, trend data will also be presented which can describe trends in the likelihood of the risk being monitored so that it can provide information to risk owners.
2. The existing control column will record what controls have been implemented or exist to mitigate managed risks. This information is needed to measure or escalate whether the existing controls are sufficiently qualified and effective in mitigating the risks being managed.
3. The mitigation plan column will contain information on what actions or actions will be taken, the target time for completing them, and the personnel responsible for these mitigation actions.
4. The notes column can be used to inform what matters are of concern or important to be known by risk owners and the board of directors.

## **VI. CONCLUSION AND RECOMMENDATION**

PT PJB Services has two significant risks that can fail to achieve goals and affect the company's performance in 2022, for these risks a KRI system has been designed in the form of a framework, determining Key Risk, and Threshold can be used by the company to carry out monitoring as an initial signal information system (early warning system) on increasing significant risk exposure.

The KRI framework, key risks, and thresholds must be routinely evaluated by the risk management and compliance sub-directorate in coordination with risk owners from each of the company's business lines. The purpose of this evaluation is to improve and update the KRI framework and measure whether the key risks and thresholds used are still relevant, effective and valid with the conditions faced by the company in future periods. Based on the discussion that has been carried out in the previous chapters, suggestions that can be proposed and given from this study are as follows:

1. For PT PJB Services
  - a. The Directors and senior leaders of the company are required to provide a definite and strong commitment in supporting the implementation of the KRI system which is facilitated and prepared by the Sub Directorate of Risk Management, Compliance and LK3.
  - b. Sub Directorate of Risk Management, Compliance and LK3 to further strengthen and establish coordination with the Internal Control Unit in monitoring and validating the risk mitigation carried out, especially in units spread across several operational areas of the company. This coordination is carried out with the aim of overcoming the limited resources owned by the Sub Directorate of Risk Management, Compliance and LK3 as the second line in risk management with the large number of business operations and the complexity of problems that have the potential to arise and occur.
  - c. In fulfilling the organization, it is better if the Sub Directorate of Risk Management, Compliance and LK3 can add personnel to assist in managing significant risks separately and more focused so that the company's risk management objectives can be optimally achieved.
  - d. The Sub Directorate of Risk Management, Compliance and LK3 can evaluate the additional risk appetite criteria described in the RACM, especially for indicators that have not been covered.

2. For further research on similar topics, the design of KRI on risk management in companies can be carried out with parameters for significant risks other than the risks discussed in this study with various cross-industry companies.

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### APPENDIX

#### Appendix 1. KRI for Risk of Losing Competitiveness and competition with Customers

Company Significant Risks	Intermediate Cause	Root Cause	KRI indicator	Source of Data/Records
Lost in competition with new customers non-PLN Group	1. Price rates are not competitive	Inaccurate composition of operational cost structure and manpower	Actual new employment contracts vs number of quotations issued in the research recommended time period (in %)	Monitoring price quotations and work contracts
	2. Products are less accepted by customers	There is no product standardization to support company acceleration in every line of business	Actual customer satisfaction numbers vs Target customer satisfaction numbers	Monitoring data on customer satisfaction figures
	3. Marketing strategy is not optimal	There is no prioritization of superior products to support company performance in every line of business	Actual marketing strategy program vs target marketing strategy program (in%)	Monitoring the realization of the main corporate programs (strategy marketing) and the revenue generated
	4. Limited Human Resources and Competency	Zero or even minus growth rules from the parent entity regarding meeting the needs of positions and titles	Proportion of the need for positions and organizational structure positions vs the number of formations filling the	Monitoring the formation of manpower filling

			workforce (in %)	
	5. Competition with parent entities that have the same product	Business synergy processes between corporate entities that are not harmonious	No KRI monitoring required	It is difficult to quantify the policies of the parent company

**Appendix 2. KRI for the Risk of the high achievement rate of company receivables which causes financial condition instability resulting in disruption of business processes**

<b>Company Significant Risks</b>	<b>Intermediate Cause</b>	<b>Root Cause</b>	<b>KRI indicator</b>	<b>Source of Data/Records</b>
The high rate of attainment of the maturity of the company's receivables causes financial condition instability resulting in disruption of business processes.	1. Novation or Addendum to existing work contracts delays the billing process	There was a corporate transformation (holding sub holding) which had the impact of changing the scope and content of the work contract	No KRI monitoring required	It is difficult to quantify policies from the parent companies (PT PLN Persero & PT PJB)
	2. Processing of billing documents is still manual so that it requires gradual verification which takes time	Document reports and minutes are still manual, so they need the signature of certain parties who are often constrained by attendance	Actual age of receivables vs Target age of receivables	PT PJB Services standard operating procedure regarding the flow of the billing process and monitoring the maturity of receivables

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