



EFFECTIVENESS OF E-RKAB MINERBA ESDM FOR EXPLORATION WPB SUBMISSION AT CV SINERGI KARYA SOLUTIF

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Abstract

e-RKAB Minerba ESDM is an official website developed by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) of the Republic of Indonesia for the submission, evaluation, and approval process of the Work Plan and Budget (WPB) in the mineral and coal mining sector. Through the e-RKAB Minerba ESDM website, mining companies can submit their Work Plan and Budget (WPB) online, upload supporting documents, and monitor the submission status in real time. The purpose of this article is to analyze the effectiveness of using e-RKAB Minerba ESDM for submission the mining exploration Work Plan and Budget (WPB) at CV Sinergi Karya Solutif. The data in this article were collected through direct analysis and interviews with the operational manager at CV Sinergi Karya Solutif. The results of this article indicate that the use of E-RKAB Minerba ESDM is still ineffective, because the system in the E-RKAB Minerba ESDM website does not support automatic revisions. In addition, errors often occur on the e-RKAB Minerba ESDM website when uploading Mining Exploration Work Plan and Budget (WPB) documents. This causes the process of preparing and approving the Mining Exploration Work Plan and Budget (WPB) to take longer, which impacts the continuity of planned mining exploration activities.

Keywords: budget plan, mining, exploration stage

Abstrak

e-RKAB Minerba ESDM adalah website resmi yang dikembangkan oleh Kementerian Energi dan Sumber Daya Mineral (ESDM) Republik Indonesia untuk proses pengajuan, evaluasi, dan persetujuan Rencana Kerja dan Anggaran Biaya (RKAB) di sektor pertambangan mineral dan batubara (Minerba). Melalui e-RKAB Minerba ESDM, perusahaan pertambangan dapat mengajukan RKAB secara online, mengunggah dokumen pendukung, serta memantau status pengajuan secara real-time. Penulisan artikel ini bertujuan untuk menganalisis efektivitas penggunaan e-RKAB

Minerba ESDM untuk pengajuan RKAB eksplorasi tambang di CV Sinergi Karya Solutif. Data dalam artikel ini dikumpulkan melalui analisis langsung serta wawancara dengan menejer operasional di CV Sinergi Karya Solutif. Hasil penulisan artikel ini menunjukkan bahwa penggunaan e-RKAB Minerba ESDM masih kurang efektif, dikarenakan sistem pada website e-RKAB Minerba ESDM tidak mendukung adanya revisi otomatis. Selain itu, sering kali terjadi error pada website e-RKAB Minerba ESDM pada saat pengunggahan dokumen RKAB eksplorasi tambang. Hal ini menyebabkan proses penyusunan dan persetujuan RKAB eksplorasi tambang membutuhkan waktu yang lebih lama, sehingga berdampak pada kelancaran kegiatan eksplorasi tambang yang sudah direncanakan.

Kata Kunci: rencana biaya, pertambangan, tahap eksplorasi

A. INTRODUCTION

The development of digital technology has driven transformation in various sectors, including the mining sector. Digitalization in the mining industry allows companies to manage resources more optimally, increase transparency, and facilitate compliance with applicable regulations. One of the implementations of digitalization in the mining sector is the e-RKAB Minerba ESDM website for submission Mining Exploration Work Plan and Budget (WPB).

e-RKAB Minerba ESDM is an official website developed by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) of the Republic of Indonesia to facilitate the process of submitting, evaluating, and approving Work Plan and Budget (WPB) in the mineral and coal mining sector. This website aims to simplify the administrative process that was previously done manually, making it more efficient and transparent. With this system, it is expected that mining companies can manage Mining Exploration Work Plan and Budget (WPB) more quickly and in accordance with applicable regulations.

CV Sinergi Karya Solutif uses the e-RKAB Minerba ESDM website to report the Mining Exploration Work Plan and Budget (WPB). The Mining Exploration Work Plan and Budget (WPB) report is a mandatory report that must be submitted by mining companies to the government before starting mining exploration activities (Faizatul, 2024). This report covers various aspects, such as exploration methods, expected resource targets, mining exploration implementation schedule, labor requirements, and estimated operational and investment costs. The process of submitting a Mining Exploration Work Plan and Budget (WPB) begins with the preparation of the Work Plan and Budget in Microsoft Excel, then uploaded to the e-RKAB Minerba ESDM website, and revised until approval by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM).

The use of the Minerba ESDM e-RKAB website is still ineffective, because the system on the website does not support automatic revisions. In the event of a revision to the submitted Mining Exploration Work Plan and Budget (WPB), the company must re-upload the corrected document. This



activity must go through a long process and is prone to human error. In addition, the e-RKAB Minerba ESDM website often experiences errors when used to upload Mining Exploration Work Plan and Budget (WPB) documents. This causes the process of preparing and approving the Mining Exploration Work Plan and Budget (WPB) to take longer, which impacts the efficient execution of planned mining exploration activities.

To overcome this problem, CV Sinergi Karya Solutif can collaborate with the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) to propose an automatic revision feature on the ESDM e-RKAB Minerba website. With the automatic revision feature on the website, it accelerates the process of revising the Mining Exploration Work Plan and Budget (WPB). In addition, it is necessary to improve and optimize the system to reduce the potential for technical glitches, ensure a more stable system, and support the smooth process of submitting Mining Exploration Work Plan and Budget (WPB).

B. IMPLEMENTATION AND METHODS

According to Muzayin (2022), the Merdeka Belajar Kampus Merdeka (MBKM) Internship Program is a program designed by the Ministry of Education, Culture, Research, and Technology (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi) of the Republic of Indonesia to transform Indonesia's higher education system, aiming to produce graduates who are more relevant to industry needs. As part of this initiative, an internship was conducted at CV Sinergi Karya Solutif, located at Jln. Melati No. 53, Karanggintung, Sumbang District, Banyumas Regency, Central Java Province. CV Sinergi Karya Solutif is a

consulting company specializing in mining and project management at both regional and national levels. The internship program starts from August 12, 2024 to November 29, 2024. During the internship program at CV Sinergi Karya Solutif, Students are expected to acquire knowledge in corporate operational management and financial management, as well as make a positive contribution to the internship place.

The method applied in this internship activity focuses on direct work practices in the field and interviews with operational managers. One of the activities carried out was to prepare a Mining Exploration Work Plan and Budget (WPB) for the client CV Sinergi Karya Solutif. The preparation of the Mining Exploration Work Plan and Budget (WPB) at CV Sinergi Karya Solutif begins with preliminary data collection, including geological studies, and mineral resources at the mining site. Next, schedule of exploration activities and costs required for mine exploration is prepared. The Mining Exploration Work Plan and Budget (WPB) document are prepared in accordance with applicable regulations, covering technical aspects, environmental management, and work safety costs. Upon completion of the Work Plan and Budget (WPB) preparation stage, the mining exploration document was uploaded to the e-RKAB Minerba ESDM website for approval. After submission, the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) will evaluate the document, and if revisions are needed, the company must improve the exploration RKAB in accordance with the direction until it obtains official approval.

C. RESULTS AND DISCUSSION

The process of submitting a Mining Exploration Work Plan and Budget



(WPB) on the e-RKAB Minerba ESDM website begin be login to the website using a company account. After login into the website, the applicant fills in the company's general data, and uploads the Mining Exploration Work Plan and Budget (WPB) matrix one by one in accordance with the available format. After that, the applicant uploads other supporting documents such as maps of mining land locations, geological reports, and relevant mining licenses. After all data and documents are complete, the Mining Exploration Work Plan and Budget (WPB) submission will be processed for evaluation by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM). If there are revisions, the system will send back the Mining Exploration Work Plan and Budget (WPB) to the company. After that, the company is required to make improvements in accordance with the revisions given, then re-upload the improved Work Plan and Budget (WPB) so that the submission can be processed again for approval.

The use of e-RKAB Minerba ESDM in submitting a Mining Exploration Work Plan and Budget (WPB) at CV Sinergi Karya Solutif aims to increase efficiency and transparency in the Work Plan and Budget (WPB) licensing process. However, the e-RKAB Minerba ESDM website still has several shortcomings that affect its effectiveness. One of the problems in the website is the absence of an automatic revision feature, which causes the revision process to be carried out manually so that it takes longer. To overcome this problem, it is necessary to have an automatic revision feature on the e-RKAB Minerba ESDM website. This feature allows users to make improvements in real-time without having to re-upload the entire document. In addition, it is also necessary to

optimize the e-RKAB Minerba ESDM website to improve system stability and reliability. Improvements to the e-RKAB Minerba ESDM website can include increasing server capacity, optimizing program code, and strengthening security infrastructure. With the addition of automatic revision features and website optimization, it is expected that the process of submitting Mining Exploration Work Plan and Budget (WPB) can take place more efficiently.

The successful implementation of the proposed solution can be measured through several key indicators. The following are some of the success indicators used as benchmarks in assessing the effectiveness of e-RKAB Minerba ESDM system improvements:

1. Time Efficiency in the Mining Exploration Work Plan and Budget (WPB) Revision Process

Prior to the automatic revision feature, the Mining Exploration Work Plan and Budget (WPB) revision process was still carried out by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) providing revision notes, which were then sent back to the company for improvement. After that, the company must re-upload the repaired RKAB document. The process takes a long time, which will slow down the approval process of the Mining Exploration Work Plan and Budget (WPB). With the plan to add an automatic revision feature integrated with the system, the company will be able to revise the Mining Exploration Work Plan and Budget (WPB) based on the revision notes provided by the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM) without having to resubmit the mining exploration Work Plan Budget (WPB)

document manually. So that the revision process can be carried out more quickly, efficiently and transparently.

2. Reduced technical problems in the Upload Process of Work Plan and Budget (WPB) Exploration Documents

Prior to the optimization of the e-RKAB Minerba ESDM system, companies often experienced errors when uploading documents on the website. This condition can slow down the process of Mining Exploration Work Plan and Budget (WPB) approval. With the optimization plan for the e-RKAB Minerba ESDM system, companies will be able to upload documents smoothly, thus accelerating the Mining Exploration Work Plan and Budget (WPB) approval process. Optimization of this system not only has an impact on time efficiency, but also increases user satisfaction with e-RKAB Minerba ESDM website.

In implementing the additional automatic revision feature and optimizing the e-RKAB Minerba ESDM website, there are several driving factors that play an important role in ensuring the success of the implementation. The following are some of the main factors that play a role in supporting the successful implementation of the solution offered:

1. Support from the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM)

One of the main factors that play a major role in the successful development of the e-RKAB Minerba ESDM system is the support from the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM). The form of support provided includes approval of system development,

provision of clear technical guidance, and organizing training programs for stakeholders and users of the e-RKAB Minerba ESDM website. These supports can accelerate the adaptation process to additional features on the e-RKAB Minerba ESDM website.

2. Readiness of Users to Adapt to the New System

The successful implementation of the automatic revision feature in the e-RKAB Minerba ESDM website is highly dependent on the readiness of mining companies and mining consultants to adapt to the updated system. Mining companies show readiness to adapt to the new system because they realize the benefits offered, such as time savings in the process of submitting Mining Exploration Work Plan and Budget (WPB), as well as reducing the potential for human error in administration. This allows the implementation of the automatic revision feature to run more effectively and provide optimal results for all stakeholders.

3. Demand for Increased Speed in Decision Making

The revision process of Mining Exploration Work Plan and Budget (WPB) on the e-RKAB Minerba ESDM website is still done manually, so it takes about 14 working days in the revision process. After receiving feedback, the company must improve the Work Plan and Budget (WPB) document and resubmit it until it is approved by the Ministry of Energy and Mineral Resources. This process takes quite a long time and has the potential to hamper the efficiency of the company's operations. This is a driving factor for system optimization and the addition of an automatic revision feature on the e-RKAB Minerba ESDM website. With these

improvements, it is expected that the revision process will be carried out more quickly, accurately, and transparently.

Although there are various driving factors that support the successful implementation of automatic revision features and optimization of the e-RKAB Minerba ESDM website, it cannot be denied that there are still some challenges that can hinder the process. The following are some factors that have the potential to become obstacles in the process of adding automatic revision features and optimizing the e-RKAB Minerba ESDM website:

1. Technology Infrastructure Limitations

A complex digital system requires a reliable technological infrastructure, including high-capacity servers, a stable network, and strong security systems. If the infrastructure is inadequate, disruptions such as data processing delays, system errors, or even downtime may occur, hindering the automatic revision process and document uploads. Therefore, collaboration with technology service providers is necessary to ensure the system operates optimally without major disruptions.

2. Difficulty Adjusting the System to Changes in Mining Regulations

Regulations in the mining sector are frequently updated, which may affect how e-RKAB Minerba ESDM system handles data revisions. If the system is not updated quickly to align with the latest regulations, the automatic revision feature may cause errors in data processing. Therefore, a monitoring mechanism, socialization, and user capacity building are necessary to ensure the system remains relevant and capable of adapting to dynamic regulatory changes in the mining industry.

3. Limited Cost for System Development

The development of automatic revision features and optimization of the e-RKAB Minerba ESDM website requires considerable costs. The costs incurred include costs for experts, technology infrastructure costs, and costs during the system testing and maintenance process. If the allocated funds are insufficient, then the system development cannot be realized optimally. Therefore, careful budget planning is needed to ensure that the development of the e-RKAB Minerba ESDM system proceeds smoothly.

D. CLOSING

1. Conclusions

The process of submitting Mining Exploration Work Plan and Budget (WPB) through the e-RKAB Minerba ESDM website aims to improve efficiency and transparency in licensing. The use of the e-RKAB Minerba ESDM website is still ineffective, because the system on the website does not support automatic revisions. In addition, there are often errors on the e-RKAB Minerba ESDM website when uploading Mining Exploration Work Plan and Budget (WPB) documents. To overcome these problems, the development of an automatic revision feature and system optimization is needed to accelerate and enhance the reliability of submitting the mining exploration Work Plan and Budget.

The successful implementation of this solution depends on the support of the Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral/ESDM), the readiness of website users to adapt, and the demand for efficiency in

decision making. Nevertheless, challenges such as technological infrastructure limitations, difficulties in adapting the system to mining regulations, and budget constraints for system development must be addressed to ensure that the e-RKAB Minerba ESDM website functions optimally and effectively supports the mining licensing process.

2. Suggestions

The e-RKAB Minerba ESDM system has successfully streamlined the licensing process digitally. However, there are still obstacles in manual revision and technical problems when uploading documents. To improve efficiency and transparency in the process of submission Mining Exploration Work Plan and Budget (WPB) through the e-RKAB Minerba ESDM website, comprehensive improvement measures are needed. Thus, there is a need for an automatic revision feature on the e-

RKAB Minerba ESDM website to accelerate the correction process and reduce human errors. In addition, system optimization is required to improve reliability and minimize technical issues, ensuring greater efficiency and transparency in the submission of Mining Exploration Work Plan and Budget (WPB).

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