ANALYSIS OF E-PNBP APPLICATION SYSTEM DEVELOPMENT FOR PNBP OPTIMIZATION OF MINERAL AND COAL SUB-SECTOR

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ABSTRACT

Keywords: E-PNBP; directorate general of mineral resources; taxpayer.

Non-tax revenue (PNBP) is a collection other than taxes paid by individuals, groups or business entities as an obligation to the state to utilize natural resources. Increasing the optimization of non-tax revenues is still a challenge for the Directorate General of Mineral and Coal in managing PNBP. The existence of the e-PNBP application aims to make monitoring of PNBP obligations much more accessible to carry out. This application was created to calculate PNBP obligations by the payer, facilitate evaluation and verification of PNBP obligations by evaluators, and as a function of payment of mineral and coal PNBP obligations so that they are by the calculated value of PNBP obligations. At present, the e-PNBP application is one of the most dynamic among others in facilitating various changes and adjustments to mineral and coal mining regulations. In its development, the e-PNBP application requires integration with other applications such as MODI, SIMPONI, MOMS, MVP SERASI, and various other developments.

Introduction

In the Strategic Plan of the Directorate General of Mineral and Coal for 2020–2024, one of the strategic objectives is the Optimization of the Contribution of a Responsible and Sustainable ESDM Sector, with the Main Performance Indicator being the Percentage of Realization of Non-Tax State Revenues (PNBP) of the Mineral and Coal Sub-Sector (Putra et al., 2021). Given the importance of the role of PNBP Minerba for national development, the Directorate General of Mineral and Coal made a breakthrough to improve governance and public services in managing PNBP minerals and coal (Widiawaty & Dede, 2023).

One of the breakthroughs in improving the management of mineral and coal PNBP is building an electronic system of Non-Tax State Revenue (e-PNBP) for minerals and coal (Umam et al., 2020). The development of the Minerba e-PNBP system aims to provide public services in managing mineral and coal PNBP that are easier, faster, and more precise. Along with the dynamics of Indonesia's coal and mineral mining environment, the e-PNBP application requires updates and improvements in data and application security (Karo-Karo, 2022). Thus, these improvements need to be made as a follow-up to the findings and evaluation of related parties on the e-PNBP application (Pradiptyo, Saputra, Nugroho, & Hutami, 2019). Furthermore, e-PNBP needs adjustments to accommodate Government Regulation (PP) 26 of 2022 concerning Types and Tariffs of Non-Tax Types of State Revenues

Applicable to the Ministry of Energy and Mineral Resources, then accommodating PP Number 15 of 2022 concerning Tax Treatment and Non-Tax State Revenues in the Coal Mining Business Sector. Thus, the maintenance and development activities of this application are expected to be able to overcome the problems that have been identified previously.
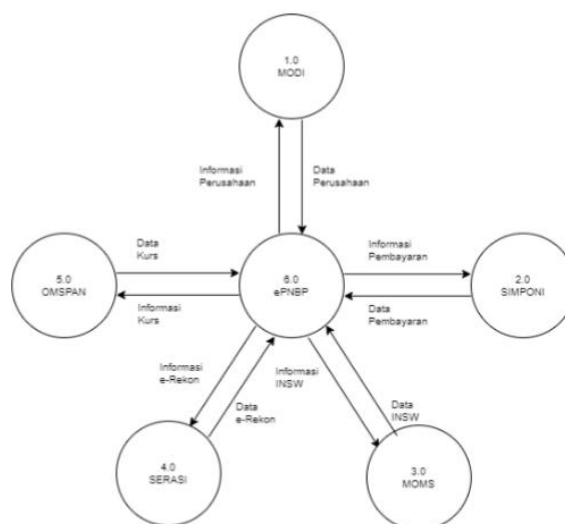
Figure 1 Integration of e-PNBP with other services

The mineral and coal e-PNBP application is software that cannot stand alone. In this case, the mineral and coal e-PNBP application requires a relationship between MODI, SIMPONI, MOMS, MVP and SERASI applications. In this working procedure, the MODI Application plays a role in confirming and interacting with related data and registered company information (Hayati, 2015). Furthermore, the SIMPONI application plays a role in confirming and interacting with PNBP data and payment information in the form of billing codes. Then, SYMPHONY, SERASI, MOMS, MVP, eDMO, and MODI, OMSPAN play a role in interacting with specific data needed by e-PNBP Minerba in real-time (Sari, 2017). The construction of a connecting bridge between applications is an essential consideration in maintaining the connectivity of mineral and coal e-PNBP software to operate optimally.

The objectives of this study are:
1. Measuring the level of customer satisfaction or payers as users of the Minerba e-PNBP service, which is used as the basis for developing the e-PNBP application.
2. Get an initial overview needed by users to develop e-PNBP applications.

Research Methods

Research is a process to achieve (systematically and supported by data) an answer to a question, a solution to a problem, or a deep understanding of a phenomenon.

In order for the research carried out to achieve the desired target, an exemplary method is needed, that is, by the problem studied. Research methods provide the knowledge and skills necessary to address problems and face environmental challenges

where decision-making must be done quickly. One method that can be used to find answers to the problems studied is the survey method. According to Kerndroer, as quoted by Ridwan:

"Survey research is research conducted on large and small populations, but the data studied are data from samples taken from these populations, so that relative events, distribution, and relationships between sociological and psychological variables are found."

The survey method aims to obtain a general picture of the characteristics or various aspects of the population related to the problem under study, so the survey method is essential. For this reason, the Speaker will explain this survey research to provide an overview of what survey research is, the characteristics of survey research, characteristics of survey research, and its types (Situmorang & Al-Afgani, 2023).

The survey research method is a way of collecting data based on surveys. Understanding a survey is a research technique or research that aims to obtain valid data by giving clear limits on data to a particular object. The person conducting the survey is called a surveyor. Conducting a survey means investigating, examining, or reviewing particular objects to obtain data for research purposes. Surveys, in this case, use questionnaires as the main instrument to collect data, and so on, so that the results achieved are systematic, planned and structured from the start of the research to the final results based on information data collection, which is generally accompanied by pictures, numbers, tables, graphs, and so on.

This survey is comprehensive, and the results of the survey analysis are used to measure user satisfaction, which is used as the basis for developing the e-PNBP application. In addition, the survey results can be used for policy materials on public services and see trends in public services provided by providers to the community and the performance of public service providers.

The population in this study was 140 people. In this case, the author has determined the number of samples of 103 respondents using sampling techniques based on the opinions of Morgan and Krejcie (1970), which can be seen in Figure 2.

Populasi (N)	Sampel (n)	Populasi (N)	Sampel (n)	Populasi (N)	Sampel (n)
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Sumber: Morgan and Krejcie (1970)

Figure 2
Sample Determination of Morgan and Krejcie

No.	Keterangan	Poin
1	Sangat Bagus	4
2	Bagus	3
3	Cukup Bagus	2
4	Tidak Bagus	1

Figure 3
Value Weighting

Nilai Persepsi	Nilai Interval	Nilai Konversi	Mutu Pelayanan	Kinerja Unit Pelayanan
1	1,00-2,5996	25,00-64,99	D	Tidak Baik
2	2,60-3,064	65,00-76,60	C	Kurang Baik
3	3,0644-3,532	76,61-88,30	B	Baik
4	3,5324-4,00	88,31-100,00	A	Sangat Baik

Figure 4
Value Recapitulation

Survey Implementation and Techniques

The implementation of the user satisfaction survey on the latest e-PNBP application is carried out through the stages of planning, preparation, implementation, processing and presentation of survey results, which include the following steps:
1. Drawing up survey instruments;
2. Determine the magnitude and technique of sampling;

3. Determine respondents;
4. Carry out surveys;
5. Processing survey results;
6. Present and report results.

To conduct a survey, one can use survey techniques, including:
1. Questionnaire with face-to-face interview;
2. Self-filling questionnaires, including those sent by mail;
3. Electronic questionnaire (e-survey);
4. Focus group discussions;
5. Unstructured interviews through in-depth interviews.

In this case, the author has distributed the questionnaire through a link or link provided to users of the e-PNBP application and filled out by users. The questionnaire will be returned to the author at a predetermined time (Susilo, 2021). In addition to using questionnaires, the author also conducted interviews and discussions with several users of the latest version of the e-PNBP application service, where several inputs were obtained on developing the e-PNBP application.

Results and Discussion

In this study, the author surveyed a Google form, which was distributed to 140 payers, but only 103 were filled out. There were nine questions that the author asked with the weight of the assessment using the Likert scale. Each question asked is given a choice of four answers with four elements of assessment, namely: perfect (weight 4), good (weight 3), less good (weight 2) and not good (weight 1). Then, the total assessment of each answer. The total value divided by the number of respondents is called the value per element. Next, the value per element divided by the total question result is called the scoring index. The results of the assessment index calculation are then multiplied by 25 to provide ease of assessment.

The scores on each question related to user satisfaction with the latest e-PNBP application are added according to the number of questionnaires filled out by respondents. To get the average score of the questions, each satisfaction element question was divided by the number of respondents, as many as 103. The survey results obtained the following data:

No.	Unsur Pengembangan Aplikasi e-PNBP	Nilai Unsur Per Pertanyaan	Nilai Unsur Per Pertanyaan
1	Bagaimana pendapat Saudara tentang tampilan Sistem Aplikasi e-PNBP terbaru dibandingkan sistem Aplikasi e-PNBP sebelumnya?	3,51	0,39
2	Menurut Saudara Apakah Sistem Aplikasi e-PNBP terbaru lebih Mudah diakses dibandingkan dengan aplikasi e-PNBP sebelumnya?	3,42	0,38
3	Bagaimana Pendapat Saudara tentang fitur-fitur yang ada di Sistem Aplikasi e-PNBP terbaru dibandingkan dengan sistem aplikasi sebelumnya?	3,30	0,37
4	Bagaimana Pendapat Saudara tentang penggunaan/pengoperasian Sistem Aplikasi e-PNBP terbaru dibandingkan dengan aplikasi sebelumnya?	3,61	0,40
5	Menurut Saudara Apakah Sistem Aplikasi e-PNBP terbaru semakin memudahkan dalam melakukan perhitungan kewajiban PNBP dibandingkan dengan aplikasi sebelumnya?	3,30	0,37
6	Bagaimana pendapat Saudara tentang kecepatan dan ketepatan pembayaran PNBP dengan menggunakan Sistem Aplikasi e-PNBP terbaru dibandingkan dengan aplikasi sebelumnya?	3,55	0,39
7	Apakah Sistem Aplikasi e-PNBP terbaru ini membantu Saudara dalam membuat pelaporan PNBP di Perusahaan Saudara ?	3,38	0,38
8	Menurut Saudara apakah Sistem Aplikasi e-PNBP terbaru ini berpengaruh dalam penurunan angka kurang bayar PNBP di Perusahaan Saudara?	3,67	0,41
9	Bagaimana pendapat Saudara tentang pengelolaan PNBP di Ditjen Minerba sebelum dan setelah penggunaan Sistem Aplikasi e-PNBP terbaru ini dibandingkan dengan aplikasi sebelumnya?	3,34	0,37
	Nilai Indeks	3,45	0,38

Figure 1

Average Results of Each Element of e-PNBP Application Development

To find out the overall conclusion of the nine elements of e-PNBP application development is the element value multiplied by the base value = 3.45 x 25 = 86.36, or it can be concluded that the customer satisfaction index of this latest e-PNBP application is a GOOD value.

The average user satisfaction with this latest version of the e-PNBP application is 80.59, which means that this latest version of ePNBP has satisfied service users.

Some inputs from respondents on the development of the latest version of the e-PNBP application are:

1. e-PNBP in order to be able to generate Fixed Contribution bills for the current year, as follows:
2. Automatically retrieving company-wide data from MODI every December 31 of each year.
3. Take company data from MODI to create a unique table that stores company data tables through the MODI web service.
4. After that, the system will be able to generate Fixed Contribution bills for payers,
5. e-PNBP can read documents with OCR; when the company uploads documents in the final transaction, the system will automatically provide a document reading

feature with OCR that must be done by the payer so that the system can compare the suitability of the uploaded data with the data that the payer has input.

Survei Unsur Pengembangan Aplikasi e-PNBP	4	3	2	1	n
1 Bagaimana pendapat Saudara tentang tampilan Sistem Aplikasi e-PNBP terbaru dibandingkan sistem Aplikasi e-PNBP sebelumnya?	27	54	0	0	81
2 Menurut Saudara Apakah Sistem Aplikasi e-PNBP terbaru lebih Mudah diakses dibandingkan dengan aplikasi e-PNBP sebelumnya?	18	57	6	0	81
3 Bagaimana Pendapat Saudara tentang fitur-fitur yang ada di Sistem Aplikasi e-PNBP terbaru dibandingkan dengan sistem aplikasi sebelumnya?	15	52	14	0	81
4 Bagaimana Pendapat Saudara tentang penggunaan/pengoperasian Sistem Aplikasi e-PNBP terbaru dibandingkan dengan aplikasi sebelumnya?	36	43	1	1	81
5 Menurut Saudara Apakah Sistem Aplikasi e-PNBP terbaru semakin memudahkan dalam melakukan perhitungan kewajiban PNBP dibandingkan dengan aplikasi sebelumnya?	13	63	5	0	81
6 Bagaimana pendapat Saudara tentang kecepatan dan ketepatan pembayaran PNBP dengan menggunakan Sistem Aplikasi e-PNBP terbaru dibandingkan dengan aplikasi sebelumnya?	33	47	1	0	81
7 Apakah Sistem Aplikasi e-PNBP terbaru ini membantu Saudara dalam membuat pelaporan PNBP di Perusahaan Saudara ?	16	53	12	0	81
8 Menurut Saudara apakah Sistem Aplikasi e-PNBP terbaru ini berpengaruh dalam penurunan angka kurang bayar PNBP di Perusahaan Saudara?	49	28	2	2	81
9 Bagaimana pendapat Saudara tentang pengelolaan PNBP di Ditjen Minerba sebelum dan setelah penggunaan Sistem Aplikasi e-PNBP terbaru ini dibandingkan dengan aplikasi sebelumnya?	22	40	19	0	81

Tabel 2
Rekapitulasi Kuesioner Pengembangan Aplikasi e-PNBP

Conclusion

Based on the evaluation results of the questionnaire that has been submitted, the latest version of e-PNBP is easier to use than the previous version. The Compulsory Assessment Index of the e-PNBP Application System is 86.36, which means GOOD. There are several inputs in developing this latest version of the e-PNBP application, namely the Fixed Contribution billing process so that it can automatically pull data from MODI every December 31 each year. It is expected that the development of the e-PNBP application can read documents with OCR, making it easier for payers to compare the suitability of uploaded data with data that payers have input.

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