Modeling the Business Process of Scholarship Applications to the Bojonegoro Education Department

Yudistira Ramadani*[1], Muhammad Zakin Nada Raya[2], Ahmad Gafril Mandiri[3], Muhammad Ainul Yaqin[4]

[1,2,3,4] Jurusan Teknik Informatika, Fakultas Sains dan Teknologi, Universitas Islam Negeri Maulana Maliki Ibrahim Malang, Jl. Gajayana No.50, Malang, 65144, Indonesia
[1] 210605110123@student.uin-malang.ac.id, [2]210605110135@student.uin-malang.ac.id, [3]210605110163@student.uin-malang.ac.id, [4]yaqinov@ti.uin-malang.ac.id

*Corresponding author

Abstract

This research focuses on modeling the scholarship application business process at the Bojonegoro Regency Education Office as a response to the challenge of managing thousands of scholarship applications every year. However, there are problems for students, namely the lack of understanding of the application process, which is the main obstacle. The lack of clear and easily understood information regarding the criteria and requirements is the leading cause of student failure in applying for scholarships. Therefore, this research focuses on business process modeling as a solution to improve efficiency, transparency, and service quality. Research shows that business process modeling is a strategic step in managing scholarship applications. The resulting model provides a detailed and accurate visual representation of the scholarship application flow, identifies potential improvements, and eliminates redundancies. Hopefully, this research can make a real contribution to improving the accuracy, responsiveness, and quality of services for scholarship applicants in Bojonegoro *Regency.*

Keywords: Scholarships, Business Process Model and Notation, Education

INTRODUCTION

The significance of education in the existence of a nation and country is profound, particularly in the endeavor to produce individuals of commendable caliber as human resources [1]. The effectiveness and excellence of educational provision depend mainly on the funding received. Hence, the government has to provide financial support to ensure the optimal education organization for all citizens [2]. The Bojonegoro District Government has demonstrated its dedication to advancing the Bojonegoro workforce by offering various scholarship programs. One of the programs available is a scholarship for higher education students. To enhance higher education, the Bojonegoro District Government has initiated the Scholarship Program of Two Scholars One Village [3]. Scholarships serve as monetary aid to individuals to support their ongoing educational pursuits [4]. The Bojonegoro Regency Education Office has implemented a scholarship program to alleviate the financial burden of education in public universities.

The issue of determining the acceptance of scholarships has frequently hindered their distribution and has not aligned with the intended aims [5]. Many students refrain from applying for scholarships due to their inadequate comprehension of the scholarship application procedure. The students' lack of comprehension is partly attributable to the scarcity of readily available and easily understandable information regarding the criteria and prerequisites that must be fulfilled to be granted a scholarship. Consequently, endeavors are necessary to enhance students' comprehension of the scholarship application procedure by providing more transparent and easily accessible information.

Modeling the business process of applying for scholarships at the Bojonegoro Regency Education Office has become crucial in light of the abovementioned challenges. The Business Process Model and Notation (BPMN), a widely employed

approach in business process modeling [6], facilitates the creation of business process diagrams through flowchart techniques. These diagrams serve as graphical representations of business operations, encompassing activities and flow controls that dictate the sequence of tasks [7]. By incorporating specialized symbols and notations, BPMN aims to enhance clear, accurate, smooth, and efficient communication among all company stakeholders [8]. Additionally, BPMN allows for the creation of diagrams with varying levels of specificity, thereby facilitating the analysis of business processes. Through this modeling approach, it is anticipated that potential enhancements in the scholarship application process will be identified, ultimately leading to improved service quality and enhanced accessibility of educational aid for Bojonegoro students.

Thus, this article aims to conceptualize the business procedure of submitting applications for scholarships at the Education Office of Bojonegoro Regency to facilitate comprehension for the applicants. This conceptualization holds significance as an endeavor to enhance administrative efficiency and as a strategic measure to establish a more organized framework for managing scholarship applications. By comprehending each phase of the procedure in meticulous detail, it is anticipated that this research can make a tangible contribution toward enhancing the precision, promptness, and caliber of service provided to scholarship applicants.

METHODS

SCHOLARSHIP APPLICATION
In this research, the data were procured from applying for scholarships per the guidelines established by JUKNIS in 2023, specifically from the Education Office of Bojonegoro Regency. The details of this information can be observed in the following manner:

1. The Education Office of Bojonegoro Regency has released a statement about providing scholarships for academic achievements in tertiary education via official platforms, brochures, websites, and various other forms of media.
2. Participants who desire to acquire a scholarship must complete the registration process via the Education Office of Bojonegoro Regency. This registration process necessitates the submission of the necessary documentation, which includes the following:
   - a letter of application for the Scientist program scholarship,
   - certificates verifying enrollment at a State University,
   - a photocopy of the KK,
   - a photocopy of the ID card, and
   - a photocopy of either the KHS or the Championship Charter.

   An affidavit from PTN that provides evidence of the student's entry path is also required.
3. Once the application is activated, the registration procedure can be carried out through the application.
4. The evaluation committee from the Education Office of Bojonegoro District conducted an assessment of the proposals that had been received.
5. The Education Office of Bojonegoro Regency submitted a Decree (SK) to the Regent of Bojonegoro to determine the potential recipients of scholarships who fulfill the required criteria.
6. Suppose the number of eligible scholarship applicants exceeds the allocation specified in the Budget Acceptance Register (DPA) of the Education Department. In that case, the selection of scholarship recipients will be based on the ranking of the Student Achievement Index or championship rank, beginning with the highest (prioritizing the faculties).

7. The Regent of Bojonegoro regulates the acceptance of scholarships for achievements in higher education.

REQUIREMENT

According to the scholarship application procedure 2023 at the Education Office of Bojonegoro Regency, an elucidation is provided in the requirements format encompassing the entities involved, the endeavors undertaken, and the potential deviations that may occur.

1. Actors:
   - The Bojonegoro Regency Education Office assumes the role of facilitating and consolidating data about scholarships for Higher Education accomplishments, as well as conducting the process of screening incoming scholarship proposals.
   - Individuals eligible for Scholarships: Aspiring students who genuinely believe in pursuing scholarship opportunities.
   - The Regent of Bojonegoro is responsible for designating scholarship beneficiaries for outstanding achievements in higher education.
2. Activity:
   - Announcement of Scholarships: The Bojonegoro District Education Office, with this, declares the dissemination of scholarship information via official platforms, brochures, websites, and various other media outlets.
   - Registration Process: Individuals who express interest in acquiring a scholarship must complete the registration process through the Education Department.
   - It entails submitting the requisite documentation, which includes an application letter, student identification, photocopy of family card (KK), identification card, academic transcript, and a photocopy of the certificate of excellence.
   - Once the application has been duly acknowledged, the registration procedure can be conducted through the designated application.
   - Selection Procedure: The selection panel, appointed by the Bojonegoro Education Office, meticulously evaluates the scholarship proposals that have been duly received.
   - Determination of Prospective Awardees: The Bojonegoro Regency Education Office presents a Decree (SK) to the Bojonegoro Regent to identify and determine eligible candidates who meet the stipulated requirements for the scholarship.
3. Branching:
   - If the candidate for the scholarship meets the requirements, the subsequent course of action will involve the evaluation of the individual's suitability for becoming the recipient of said scholarship.
4. Final Decision
   - The Regent Bojonegoro decided to officially assign the scholarship recipient for higher education achievement.

The scholarship application process can be comprehended and executed with greater efficacy by all individuals involved through a meticulous exposition of the actors, activities, and branching.

RESEARCH PROCEDURE

The research procedure comprises a progression of sequential actions encompassing all the research phases, commencing from the initial step to the ultimate stage. In the context of this particular investigation, the subsequent delineation portrays the consecutive succession of research procedures adhered to:

Figure 1. Research Procedure

In this research, significant measures were taken to enhance the scholarship application procedure of the Education Office in the district of Bojonegoro. The identification of the issue entails the introduction of the primary procedures linked to the act of applying for scholarships. Subsequently, the phase of collecting information was executed to gather data related to the stream of information and the ongoing scholarship application procedure. Following this, the implementation and evaluation stages were carried out by executing the suggested modifications and assessing their impact. The evaluation comprises an examination of the procedure of financial administration after implementation to ensure that the initial expectations have attained the desired improvement objectives.

DESIGN VERIFICATION
At this juncture of the verification process, there is an optimistic expectation that the configuration of the procedure for applying for scholarships will be able to fulfill the desired benchmarks of quality, endorse the organization's goals, and deliver a satisfactory encounter for all parties concerned. Presented below is a delineation of several design verifications:
1. Compliance with Policy
   Ensure that the design of the scholarship application procedure adheres to the prevailing policies and regulations of the Bojonegoro District Education Office.
2. Readability and Consistency
   Evaluate the comprehensibility and uniformity of the procedure design, guaranteeing that each step and requirement are explicitly and consistently documented.
3. Appropriateness of Actors and Roles
   Validate the accuracy of the actors and their corresponding roles, such as the Education Department, Scholarship Candidates, Selection Team, and Regents, ensuring that they fulfill their respective duties.
4. Clarity of Activities
   Assess the clarity of the activities involved in each step of the scholarship application procedure, ensuring that all parties understand thoroughly.
5. Branching and Decisions

Verification of branching procedures, such as determining scholarship recipients based on Achievement Index rankings, has been explained and follows policy.

RESULTS AND DISCUSSION

A comprehensive and organized business process model can be derived from the scholarship application procedure outlined in the Juknis of 2023 from the Education Office of Bojonegoro Regency, as depicted in Figure 2.
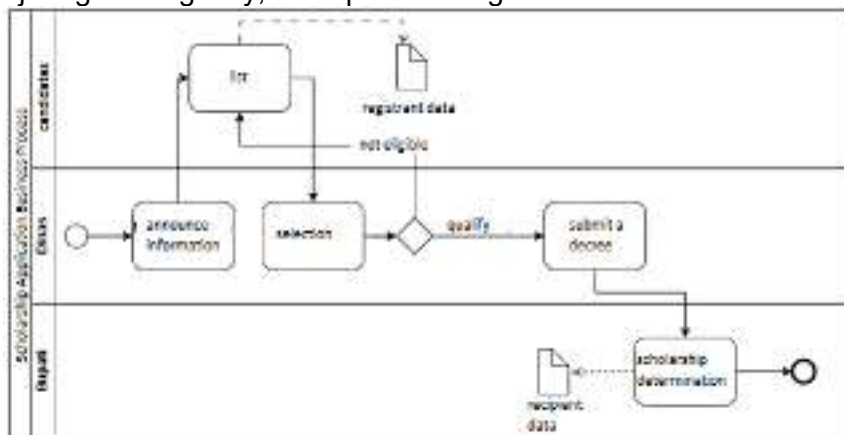

Figure 2. BPMN Scholarship Application

The specified requirements have successfully implemented the scholarship application business process and undergone thorough verification. The procedure for designing the scholarship application has demonstrated adherence to the prevailing policies set by the Bojonegoro District Education Department, encompassing clear procedural steps and well-documented prerequisites. The verification of the design has further affirmed the precise delineation of roles for each participant, activity, and branching, resulting in a coherent and understandable process for all involved stakeholders.

The procedure steps have achieved clarity due to practical design, which also ensures the utilization of registration applications. The Department of Education, the Selection Team, and the Regents fulfill their roles as critical stakeholders. At the same time, the design considers the possibility of bifurcation when determining scholarship recipients in cases where the number of applicants surpasses the predetermined threshold.

The significance of the selection criteria and the fulfillment of the requirements has been underscored in the design, and the outcomes of the verification guarantee that every phase in the procedure adheres to the desired standards of quality. This model not only conforms to the requirements and verification but also effectively resolves the issues that frequently arise, such as inadequate clarity of information and students' comprehension of the scholarship application process.

CONCLUSION

Overall, the modeling of the scholarship application business process in the Education Department of Bojonegoro Regency has effectively executed the design that aligns with the stipulated requirements and has successfully undergone the verification process. Presented hereafter are the key aspects that can be regarded as a concluding statement:
1. Business process modeling has been conducted in alignment with the prevailing policies and regulations at the Bojonegoro District Education Department.

2. The design of the scholarship application procedure has undergone thorough scrutiny to ascertain its ease of comprehension and coherence, guaranteeing lucid and standardized documentation.
3. Each participant in the process possesses a well-defined role that corresponds to their respective tasks, thereby enhancing operational efficiency and fostering accountability.
4. The activities in each stage of the scholarship application procedure are precisely delineated, ensuring a comprehensive understanding by all individuals involved.
5. The branching and decision-making elements within the procedure are elucidated with utmost clarity.
6. The selection criteria have been duly validated to ensure adherence to policy guidelines and equitable treatment of scholarship applicants.
7. Every step and decision generated throughout the scholarship application process has been meticulously recorded.
8. The prerequisites prospective scholarship recipients must fulfill are unambiguously defined under stipulated conditions.
9. The design of the procedure facilitates problem-solving and future development, fostering adaptability and flexibility to accommodate policy modifications.

It is anticipated that through effective execution, the present business process model will have the capability to generate a favorable outcome by enhancing efficiency, transparency, and quality of services in the administration of scholarship applications within the Education Department of Bojonegoro Regency.

REFERENCES

[1] I. Sudarsana, "Peningkatan Mutu Pendidikan Luar Sekolah Dalam Upayapembangunan Sumber Daya Manusia", *Jurnal Penjaminan Mutu*, vol. 1, no. 1, p. 1, 2016, https://doi.org/10.25078/jpm.v1i1.34.
[2] W. H. Susilo, "Faktor-Faktor Yang Berhubungan Dengan Tingkat Manfaat Bagi Penerima Beasiswa Dan Peningkatan Kinerja Sdm Unggul Di Jambi Indonesia", *Jurnal Ekonomi Dan Bisnis*, 17(2), 1, 2016, https://Doi.Org/10.24914/Jeb.V17i2.265.
[3] A. W. Ramadhanty, "Efektivitas Program Dua Sarjana Satu Desa Bagi Mahasiswa Tidak Mampu Di Kecamatan Dander Kabupaten Bojonegoro Provinsi Jawa Timur", Diss. IPDN, 2023.
[4] R. A. Saputra, & S. Ayuningtias, "Penerapan Algoritma Naïve Bayes Untuk Penentuan Calon Penerima Beasiswa Pada Smk Pasim Plus Sukabumi", *Swabumi (Suara Wawasan Sukabumi): Ilmu Komputer, Manajemen, dan Sosial*, (4)2 : 114-120, 2016.
[5] R. Hardi, "Pemodelan Sistem Pendukung Keputusan Dengan Fuzzy Ahp Dalam Penentuan Penerimaan Beasiswa", 2014.
[6] G. A. P. Setiari, "Analisis Proses Bisnis Pengelolaan Data Prestasi Dan Beasiswa Mahasiswa Menggunakan Business Process Improvement (Bpi) Studi Kasus: Universitas Pendidikan Ganesha", 2022.
[7] L. Setiyani, G. Liswadi, & A. Maulana, "Proses Pengembangan Proses Bisnis Transaksi Penjualan Pada Toko Erni Karawang", *jurnal Interkom jurnal publikasi ilmiah bidang teknologi informasi dan komunikasi*, vol. 16, no. 4, p. 39-45, 2022, https://doi.org/10.35969/interkom.v16i4.189.
[8] N. D. Yohana, & F. Marisa, "Perancangan Proses Bisnis Sistem Human Resource Management (Hrm) Untuk Meningkatkan Kinerja Pegawai", *J I M P - Jurnal Informatika Merdeka Pasuruan*, 3(2), 2018, https://Doi.Org/10.37438/Jimp.V3i2.168.