International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Optimization Of The Existing Government Credit Card (Kkp) Process In The Salary-Based Loan & Credit Department Of Bri: Analysis And Recommendations For Time Efficiency

Muhammad Akmal Alba[1], Al Hasin[2]

[1,2]Department of Management, Department of Management, Faculty of Business and Economics University of Islam Indonesia, Indonesia.

Abstract

This study aims to analyze and optimize the termination process of the Government Credit Card (Kartu Kredit Pemerintah/KKP) at the Salary Based Loan (SBL) Department of Bank Rakyat Indonesia (BRI). The research was motivated by existing administrative challenges, such as prolonged document waiting times and the absence of effective monitoring systems, which resulted in inefficiencies. The methods applied were process mapping and process flow analysis, which were used to visualize workflows, identify bottlenecks, and measure time efficiency. The findings reveal that the existing process required 10,203 minutes (±7 working days) with 16 activities, while the proposed process only required 1,867 minutes (±1 working day) with 10 activities. This reflects a time efficiency improvement of 81.7%, equivalent to saving more than six working days. Strategic changes proposed include workflow simplification, the introduction of a document register system, strengthened inter-unit coordination, and the implementation of a Service Level Agreement (SLA) at each process stage. The redesigned process is expected to provide faster, more transparent, and accountable services, enhance stakeholder satisfaction, and support the objectives of the KKP policy in achieving efficient state budget management.

Keyword: Time Efficiency, Process Mapping, Process Flow Analysis, Government Credit Card, BRI Salary Based Loan.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

INTRODUCTION

Indonesia has embraced good governance principles to build an effective and accountable government, with reforms in public financial management guided by key regulations such as Law No. 17/2003, Law No. 1/2004, and Law No. 15/2004. These emphasize transparency, accountability, and efficient public service delivery. One major reform is the implementation of the Government Credit Card (GCC) policy, regulated under Minister of Finance Regulation (PMK) No. 97/PMK.05/2021. The GCC serves as a non-cash payment instrument for government units, particularly for operational expenses funded through Uang Persediaan (UP), aiming to reduce cash dependency, enhance transparency, and improve budget efficiency (Ministry of Finance, 2024).

Bank Rakyat Indonesia (BRI), as a state-owned bank, plays a strategic role in issuing and managing GCCs. Within BRI, the Salary Based Loan (SBL) Department handles both GCC acquisition and termination. While BRI strives to maintain service quality and customer loyalty (Choriyati, 2021), the GCC termination process faces operational challenges. It involves multiple stages of document verification, internal coordination, analysis, and hierarchical approvals often involving dispersed units. This leads to delays, poor coordination, and inefficiencies.

Existing studies confirm similar issues. Said and Sutiono (2021) identified weak inter-unit coordination, low procedural awareness, and lack of document tracking as key barriers in GCC implementation. Even in digital systems, unstructured workflows can result in significant delays. Comparable bottlenecks were found in supply chain processes, where sequential dependencies caused up to six-day delays reduced by 50% after process redesign (Sani, Arifianti, & Rasmini, 2024). To address these challenges, this study analyzes the current GCC termination process in BRI's SBL Department using process mapping and process flow analysis. Process mapping visually outlines each step to identify inefficiencies, while process flow analysis measures processing time, task dependencies, and coordination effectiveness. This approach aligns with Business Process Management (BPM) practices, proven to enhance efficiency and control in both public and private sectors (Fathinatussakinah et al., 2024).

The findings will inform the design of a streamlined GCC termination process, aiming to reduce processing time, minimize administrative bottlenecks, and improve internal coordination. A more efficient workflow is expected to enhance service delivery to government agencies and support the GCC policy's core objectives: transparent, accountable, and efficient state budget management.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Objectives

This study aims to analyze the Government Credit Card (GCC) termination and approval process in BRI's SBL Department by identifying factors affecting time efficiency and proposing recommendations for a faster and more efficient workflow.

LITERATURE REVIEW

Bank

A bank is a financial institution that collects funds from the public through deposits and channels them into credit or other financial instruments to support economic development (Law No. 7/1992, as amended by Law No. 10/1998). According to Subagyo et al. (2002), commercial banks serve as intermediaries in mobilizing and allocating funds while providing payment system services. Bank Rakyat Indonesia (BRI), as a state-owned bank, plays a strategic role in delivering financial services, including the issuance and management of Government Credit Cards (GCC), contributing to public financial reform and service efficiency.

Government Credit Card (GCC)

The Government Credit Card (GCC), regulated under Minister of Finance Regulation (PMK) No. 196/PMK.05/2018, is a corporate credit card used for state budget expenditures, where the issuing bank makes advance payments and the government unit repays within an agreed period. The application and issuance process involves document verification by the bank, with a maximum processing time of six working days. As a non-cash payment tool, the GCC supports transparency, accountability, and efficiency in public financial management.

Operations Management

Operations management involves transforming inputs into valuable outputs goods and services through systematic planning, coordination, and control of resources (Heizer, Render, & Munson, 2016). It encompasses the design and management of production and service delivery processes, ensuring efficiency and effectiveness. According to Schroeder (2011), operations management is critical in aligning business processes with organizational goals, particularly in service-oriented sectors such as banking.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Process Strategy Theory

Process strategy focuses on how business processes are structured and managed to achieve operational goals. Rummler and Brache (1990) define process mapping as a visual technique to document workflow and identify inefficiencies, while process flow analysis examines the sequence of activities, decision points, time consumption, and redundancies. These tools are essential for diagnosing current processes and designing improvements, forming the foundation for business process optimization.

Process Design

Process design refers to the systematic planning of workflows to enhance the flow of materials, information, and customer service (Schroeder, 2011). As defined by APICS, it involves a sequence of operations that transform inputs into desired outputs using various forms of energy and resources. It includes input selection, workflow configuration, and production techniques, all aligned with organizational strategy (Sukanto Reksohadiprodjo, 2013). Effective process design is crucial for achieving efficiency, particularly in complex administrative procedures such as GCC termination.

Time Efficiency and Service Standards

Time efficiency is a key indicator of operational performance, referring to the ability to complete tasks promptly without compromising accuracy. Studies show that structured process management, including Business Process Management (BPM), can significantly reduce processing time (Teixeira et al., 2024). The implementation of Service Level Agreements (SLAs) enhances accountability and reduces delays, as strict deadlines minimize procrastination (Prieto, 2022; Human Factors, 2007). Transparency through digital tracking and clear accountability structures further supports timely and reliable service delivery (Irawati et al., 2024; Lyezia & Kapaya, 2024).

Process Design Analysis

Process flow analysis examines the sequence of transformation activities from input to output, aiming to identify bottlenecks, redundancies, and opportunities for improvement (Schroeder, 2011). It enables organizations to redesign processes for greater efficiency and customer value. In this study, it serves as a methodological foundation for analyzing and optimizing the GCC termination process in BRI's SBL Department.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

METHODOLOGY

Research Approach

This study employs a qualitative descriptive approach to analyze the Government Credit Card (GCC) termination and approval process in BRI's Salary Based Loan (SBL) Department. Data were collected through in-depth interviews with involved officers, direct observation of workflow, and document analysis of internal records, processing times, and annual reports. A structured interview guide ensured comprehensive coverage of the process from initiation to completion. Process mapping and flow analysis were applied to visualize workflow, identify bottlenecks, and measure time consumption across stages.

The flow process chart, developed following Schroeder (2011) and Wignjosoebroto (2006), mapped key activities including movement, inspection, delay, and approval while recording distance, frequency, and duration. Time measurement was conducted using stopwatch techniques to capture processing and transfer times. Thematic analysis was used to interpret qualitative data, focusing on inefficiencies and coordination challenges. The integration of observational, interview, and documentary data enabled a holistic understanding of the current process, supporting the development of a more efficient and streamlined redesign.

RESULTS AND DISCUSSION

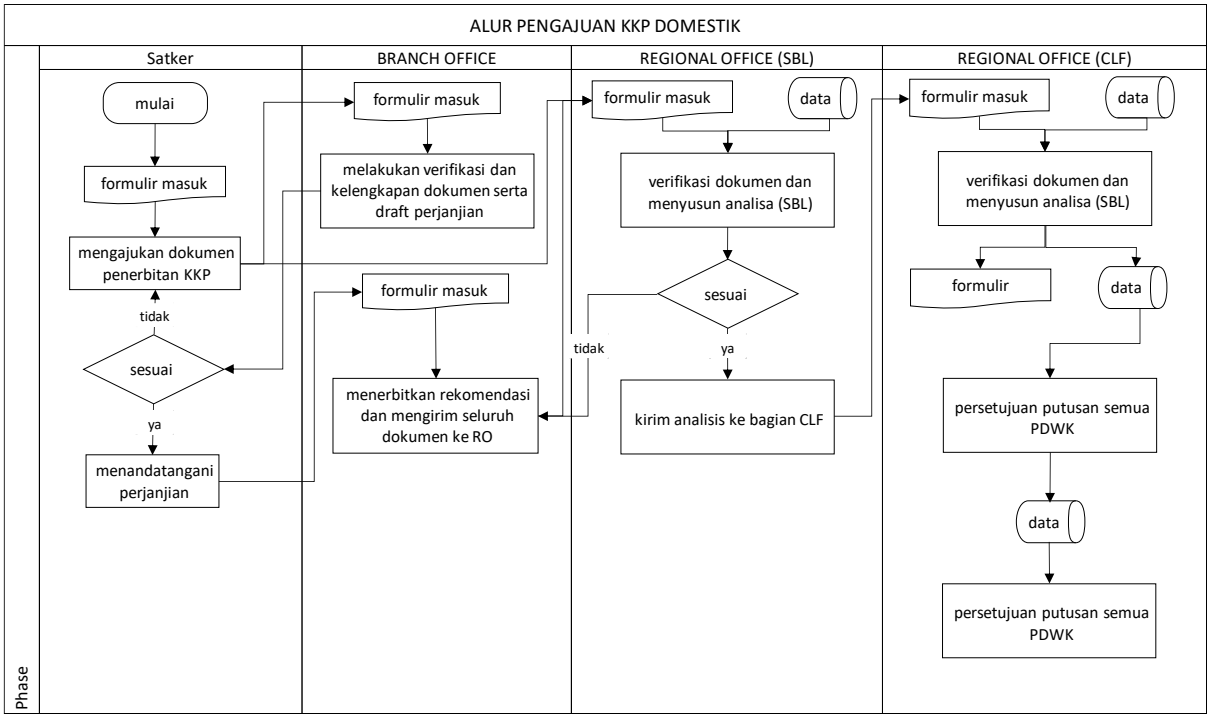
Results

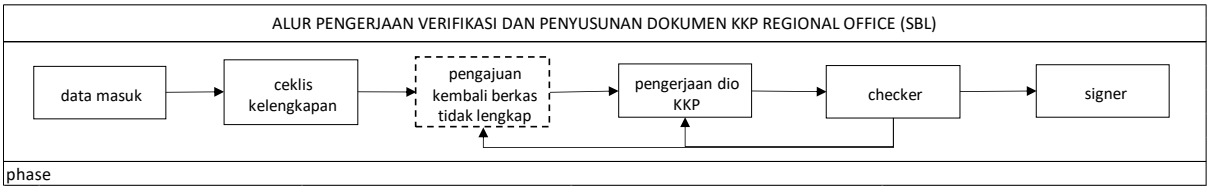
The domestic Government Credit Card (KKP) application process involves multiple documentation and procedural steps managed by the Satuan Kerja (Satker). Required documents include:

Letter of Application
Reference Letter
BRI Corporate Card Application Form
Copy of Satker's NPWP
Copy of Cardholder's KTP and NPWP
Appointment Letter for KPA
UP KKP Decision from KPPN
SKPP
Kanca Recommendation Letter
MoU for Collaboration

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR





Analysis revealed inefficiencies causing delays, including incomplete or inconsistent documentation and prolonged drafting periods. These issues occur at several stages, particularly during verification and approval processes. The current workflow involves multiple parties Satker, RO, and CLF leading to coordination challenges and extended processing times. The process flow diagram illustrates key bottlenecks in data validation and cross-checking. Findings indicate that streamlining the procedure, improving data accuracy, and standardizing documentation can significantly reduce delays and enhance efficiency in KKP issuance.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

DISCUSSION

Existing Process

Table 1. Existing Process

BAGAN ALIRAN PROSES

Bagan Subjek	Alur Pengajuan KKP Domestik
Operasi	Proses Verifikasi serta Penerbitan Rekomendasi
Dipetakan oleh	Muhammad Akmal Alba
Bagan No.	01 Lembar 1 dari 2
Tanggal	23/04/2025

Kegiatan	Sekarang	Usulan	Simpan
Operasi	80		
Transportasi	12		
Pemeriksaan	21		
Menunggu	10080		
Penyimpanan	0		
Banyak Waktu	10203		
Jarak Total	0		

Jarak (Meter)	Menit (Waktu)	Lambang	Sekarang √ / Usulan — Kegiatan	Cat.
0	0	⇨	Berkas masuk ke Dio (Digital Office)	Via system
0	5	⇨	Disposisi dokumen KKP	
0	5	■	Ceklis kelengkapan dokumen KKP	Via Excel
0	40	●	Mengerjakan analisis KKP di Dio (Digital Office) dan berkas sampai di draft	Via system
0	1	⇨	meminta kelengkapan kepada kantor cabang	Via whatsapp
0	7200	D	Dokumen menunggu kelengkapan di draft	Via system

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

0	5						Disposisi untuk kelengkapan dokumen KKP	
0	1						Ceklis ulang kelengkapan dokumen KKP	Via Excel
0	7						Pengelompokan urutan dokumen KKP	Via Excel
0	23						Melanjutkan analisis dokumen KKP dan mengirim ke checker	Via system
0	10						Berkas di cek dan ditolak ckecker	Via system
0	1						meminta perbaikan terkait kelengkapan dokumen	Via whatsapp
0	2880						Dokumen menunggu kelengkapan di draft (ditolak karena tidak ada ttd)	Via system
0	10						Pengelompokan urutan dokumen KKP	Via Excel
0	10						Berkas di cek dan disetujui ckecker	Via system
0	5						Berkas disetujui signer	Via system

The current KKP application process in Bank BRI's Salary-Based Loan (SBL) Department was analyzed using a process flowchart to identify inefficiencies. Despite being fully digital via Digital Office (Dio), the total processing time reaches 10,203 minutes (≈7 days), primarily due to delays in document handling. Key bottlenecks include prolonged waiting times: 7,200 minutes (5 days) during drafting and 2,880 minutes (2 days) after checker rejection. These delays stem from incomplete submissions, lack of document tracking, and limited remote access due to restricted network policies. Although physical movement is zero, poor inter-departmental coordination contributes to approximately 10,080 minutes of idle time. The process involves 16 activities: 4 operations, 5 transports, 5 inspections, and 2 waiting stages. Repeated inspections and transfers indicate weak initial verification and insufficient staff competence. Over-reliance on manual follow-ups further slows progress.

To improve efficiency, the following are recommended:

Implement a dedicated KKP document tracking system

Provide staff training to reduce errors and rework

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Standardize submission requirements

Enhance response times through automated reminders and clearer accountability

These measures aim to reduce delays, minimize redundancies, and streamline coordination leading to faster, more reliable KKP processing without compromising data security.

Proposed Process

Based on the analysis of the existing process, an improved KKP application workflow was proposed to enhance efficiency, reduce delays, and streamline coordination. The revised process eliminates redundant steps and reorganizes responsibilities between units to minimize bottlenecks.

Table 2. Proposed Process

BAGAN ALIRAN PROSES

Bagan Subjek		Alur Pengajuan KKP Domestik
Operasi	:	Proses Verifikasi serta Penerbitan Rekomendasi
Dipetakan oleh	:	Muhammad Akmal Alba
Bagan No.	:	01 Lembar 2 dari 2
Tanggal	:	23/04/2025

Kegiatan	Sekarang	Usulan	Simpan
○ Operasi	40		
⇨ Transportasi	10		
□ Pemeriksaan	14		
D Menunggu	1800		
▽ Penyimpanan	3		
Banyak Waktu	1867		
Jarak Total	0		

Jarak (Meter)	Menit (Waktu)	Lambang					Sekarang / Usulan √	Kegiatan	Cat.
		○	⇨	□	D	▽			

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

0	0	○	➡	□	D	▽	Berkas masuk ke Dio (Digital Office)	Via system
0	10	○	➡	□	D	▽	Disposisi dokumen KKP	Via WA
0	4	○	⇨	■	D	▽	Ceklis kelengkapan dokumen KKP	Via Excel
0	3	○	⇨	□	D	▼	Mengisi register dokumen terkait kelengkapan data	Via Gsheets
0	1440	○	⇨	□	●	▽	Menunggu kelengkapan	
0	33	●	⇨	□	D	▽	Analisis dokumen KKP dan mengirim ke checker	Via system
0	7	●	⇨	□	D	▽	Pengelompokan urutan dokumen KKP	Via Excel
0	360	○	⇨	□	●	▽	Waktu tunggu di sampai di checker	
0	5	○	⇨	■	D	▽	Berkas disetujui checker	Via system
0	5	○	⇨	■	D	▽	Berkas disetujui signer	Via system

Key changes include:

1. Direct submission from Satker to the Regional Office (RO), bypassing the Branch Office (BO), to avoid processing delays caused by workload overload at BO.
2. The RO handles document preparation and verification, while the BO supports only upon request, reducing dependency and improving speed.
3. Implementation of a dedicated KKP document register to track submissions in real time, preventing documents from being left unattended in draft status.
4. Introduction of time-bound deadlines: 1 day for BO to complete required documents and strict end-of-day check-in for reviewers to ensure continuity in processing.

The redesigned process consists of 10 activities: 2 operations, 2 transports, 3 inspections, 2 waiting stages, and 1 storage activity. Total processing time is reduced from 10,203 minutes (≈7 days) to 1,867 minutes (≈1 day 7 hours)—a reduction of 8,336

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

minutes (≈5.8 days). Physical movement remains zero, as all processes are digital. This streamlined workflow improves transparency, reduces idle time, and enhances accountability through structured timelines and centralized tracking. By shifting responsibilities to the RO and introducing standardized controls, the new process significantly boosts operational efficiency without compromising compliance or data security.

Comparison of Existing Processes and Proposed Processes

Table 3. Comparison of Existing Processes and Proposed Processes

Components	Existing Process	Proposed Process
Total Process Time	10,203 minutes (7 days 1 hour)	1,867 minutes (1 day 7 hours)
Number of Activities	16 activities	10 activities
Number of Waiting Activities	2 activities (7.200 & 2.880 minutes)	2 activities (1.440 & 360 minutes)
Document Transfer Distance	0 meters	0 meters
Dominant Communication Method	WhatsApp, System Internal	System + Google Sheets (Register)
Inter-Unit Coordination	Manual and slow	Accelerated with register & deadlines

A comparison between the existing and proposed KKP application processes highlights significant improvements in efficiency and workflow management. The total processing time is reduced from 10,203 minutes (≈7 days) to 1,867 minutes (≈1 day 7 hours) a 81.7% reduction achieved by eliminating bottlenecks and streamlining responsibilities.

The number of activities decreases from 16 to 10, with simplified roles between the Branch Office (BO) and Regional Office (RO). The BO now only supports upon request, preventing delays caused by workload overload. Waiting times drop sharply: from 7,200 and 2,880 minutes to 1,440 and 360 minutes, respectively, thanks to a new digital document register (Google Sheets) that enables real-time tracking and prevents documents from stalling in draft. Although document movement remains zero (fully digital), communication shifts from informal (WhatsApp) to system-based with structured

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

monitoring. This reduces manual follow-ups and improves accountability. The proposed process enhances coordination, transparency, and speed. By integrating time-bound tasks and centralized tracking, it delivers a more efficient, reliable, and manageable workflow for KKP applications.

CONCLUSION

This study evaluated the Government Credit Card (GCC) application process in BRI's Salary Based Loan (SBL) Department, focusing on time efficiency. Analysis revealed that the current process involves 16 activities and takes approximately 10,203 minutes (7 working days), with significant delays due to document incompleteness, lack of tracking systems, and redundant verification cycles. To address these inefficiencies, a redesigned process was proposed, reducing the total processing time to 1,867 minutes (about 1 day) through simplification, centralized documentation via a digital register, direct submission from Satker to Regional Office, and the implementation of Service Level Agreements (SLA). This redesign achieved an 81.7% improvement in time efficiency, eliminating nearly six working days of waiting time. The findings demonstrate that strategic process reengineering supported by digital tools and clear accountability can significantly enhance service speed, transparency, and stakeholder satisfaction in public financial operations.

SUGGESTIONS

To enhance the efficiency of the GCC termination process, several strategic recommendations are proposed for BRI's Salary Based Loan (SBL) Department. First, the implementation of measurable Service Level Agreements (SLAs) for each involved unit such as branch offices, makers, checkers, and approvers can improve accountability and reduce processing delays. Second, regular training and procedural socialization through workshops, webinars, and digital guidelines should be conducted to ensure consistent understanding across units. Third, developing a digital tracking system with a real-time monitoring dashboard and automated notifications will increase transparency and prevent document stagnation in the Digital Office (Dio). Finally, periodic evaluation and balanced redistribution of workloads along with additional staffing during peak periods are recommended to maintain operational efficiency and employee productivity.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

REFERENCES

Choryati, S. (2021). Strategi Komunikasi BRI Unit Jatibaru Dalam Meningkatkan Kualitas Pelayanan Prima Pada Nasabah Simpedes (Prioritas) Tahun 2016. Kalianda Halok Gagas, 4(1), 59-71.

Rachman, H. A. A., Subagja, I. K., Hakim, A., Ermanto, C., & Ali, A. (2024). Implementasi Kebijakan Penggunaan Kartu Kredit Pemerintah dalam Meningkatkan Nilai IKPA Tahun 2023: Studi Kasus pada Sekretariat BSILHK. Jurnal Global Ilmiah, 1(8).

Syam, A., & Ferawati, A. (2023). Standar Operasional Prosedur Pengajuan Kredit Konsumtif Dan Sistem Pengawasan Intern Untuk Mencegah Kredit Macet Pada PT. Bank Mandiri Tbk Cabang Watampone. Jurnal Mirai Management, 8(3).

https://djpb.kemenkeu.go.id/kppn/kotabumi/id/informasi-umum/publikasi-djpb/kartu-kredit- pemerintah-kkp.html

Budiman, I., Saori, S., Anwar, R. N., Fitriani, F., & Pangestu, M. Y. (2021). Analisis Pengendalian Mutu Di Bidang Industri Makanan (Studi Kasus: Umkm Mochi Kaswari Lampion Kota Sukabumi). Jurnal Inovasi Penelitian, 1(10), 2185-2190.

Fathinatussakinah, A., Suhendar, E., & Oktaviani, A. (2024). Penerapan Business Process Reengineering untuk Meningkatkan Efisiensi Proses Bisnis Menggunakan Bizagi Modeler. Jurnal Optimasi Teknik Industri (JOTI), 6(1), 35-41.

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.

Rummler, G. A., & Brache, A. P. (1990). Improving Performance: How to Manage the White Space on the Organization Chart. Jossey-Bass.

Sani, Arifianti, & Rasmini. (2024). Desain Proses Untuk Pengiriman Barang Menggunakan Bagan Proses Aliran Pada Departemen Supplay Chain Management PT Abhimata Citra Abadi. Jurnal Administrasi Bisnis (JAB).

Said, A., & Sutiono, S. (2021). Analisis Persepsi Bendahara Pengeluaran Atas Aspek Kepentingan dan Kinerja Pengguna dan Mitra Perbankan Dalam Penerapan Kartu Kredit Pemerintah. Jurnal Manajemen Perbendaharaan.

Heizer, J., Render, B., & Munson, C. (2016). Operations Management: Sustainability and Supply Chain Management (12th ed.). Pearson.

Schroeder, R. G., Goldstein, S. M., & Rungtusanatham, M. J. (2011). Operation Management: Contemporary Concepts and Cases (2nd ed.). Mc Graw Hill.

Raharja, S. J., & Arifianti, R. (2019). Analysis of the Process Flow Map in the Plered Ceramic Industry, Purwakarta, Indonesia. Jurnal Pemikiran Dan Penelitian Administrasi Bisnis Dan Kewirausahaan, 4.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Wignjosoebroto, Sritomo. (2009). Tata Letak Pabrik dan Pemindahan Bahan. Guna Widya.

Sugiyono. (2014). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Alfabeta.

Teixeira, A. R., Ferreira, J. V., & Ramos, A. L. (2024). Optimization of Business Processes Through BPM Methodology: A Case Study on Data Analysis and Performance Improvement. Information, 15(11), 724.

Jones, J. S., & Linderman, K. (2014). Process management, innovation and efficiency performance: The moderating effect of competitive intensity. Journal of Business Process Management.

Nicolazzo, S., Nocera, A., & Pedrycz, W. (2024). Service Level Agreements and Security SLA: A Comprehensive Survey. arXiv.

Irawati, S., Hayat, A., Juniar, A., & Handayani, S. A. (2024). Exploring Accountability and Transparency in Government Agency Management: A Literature Review. Ilomata International Journal of Management, 5(3), 743–762.

Lyezia, M. S., & Kapaya, S. M. (2024). Influence of Transparency and Accountability on Public Sector Financial Performance: Evidence from Tanzania. Journal of Economics, Management and Trade, 30(8), 41–53.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.