

Optimization of the Automated Sales System as an Effort to Minimize Fraud & Improve Internal Control at The Distribution Company PT Sehat Selalu Banyak Rejeki

Fanda Layla Sari, Kurnia Ekasari, & Zainal Abdul Haris

Politeknik Negeri Malang, Indonesia
fandalayla91@gmail.com

Abstract

Information systems are essential in developing a business, especially in integrating data between one role and another. In addition, the development of information systems can be utilized by management in carrying out internal controls to manage the organization or company and minimize the risk of fraud resulting in material losses. This study aims to explain how the form of efforts to optimize the sales system in a company so that it becomes an automated system as an effort to minimize the risk of fraud and forms of internal control efforts. The research method used is an agile method (to develop a web-based information system) and descriptive qualitative (to identify how to implement a strategy to minimize fraud and as an effort to carry out internal control). The results of this study provide information that the implementation of an integrated web-based system which in this study is referred to as ISSS, can assist companies in improving internal control through the efficiency and effectiveness of business processes which are also visualized in the BPMN notation. This study also explains that implementing a web-based information system presented in the ISSS makes it easier for companies to minimize fraud to reduce material losses.

Keywords: Information System, Fraud, Internal Control, Optimization

JEL Codes: M15, M41, M49

How to Cite

Sari, F. L., Ekasari, K., & Haris, Z. A. (2022). Optimization of the automated sales system as an effort to minimize fraud & improve internal control at the Distribution Company PT Sehat Selalu Banyak Rejeki. *International Journal of Business, Management, and Economics*, 3(4). 293 - 309. DOI: <https://doi.org/10.47747/ijbme.v3i4.786>

1. Introduction

An accounting Information System (AIS) is a component that collects, categorizes, processes, analyzes, and combines relevant financial information for the decision-making of interested parties (such as management and shareholders) (Otinur et al., 2017). The importance of using AIS as a way to carry out reasonable internal control and as an effort to prevent fraud has been

realized by PT Sehat Selalu Banyak Rejeki. In its realization, after experiencing business development in the last three years, PT Sehat Selalu Banyak Rejeki has several times often experienced difficulties in carrying out internal controls on the sales system between depot offices managed by the company but in certain distribution areas with the center or called the head office. . One of the problems that often occurs is the frequent occurrence of 1) the difference in recording related to the condition of authentic physical goods with the recording results reported through routine reports to the head office as a form of knowledge control related to the balance sheet owned by each depot, 2) there is a difference in assets in the form of sales proceeds that have not been recognized in the report, giving rise to manipulative records resulting from the use of funds generated from the sale for the personal interests of specific individuals, and others.

The existence of some of these problems, if, in the end, the situation cannot be minimized, will result in material losses in the company with a reasonably large nominal. After the actual audit process, the field audit produces data declared entirely irrelevant. Errors often indicate abuse of authority by staff at the depot or AMO (marketing office area) and the management involved. Based on the problems and conditions that show these indications, it is necessary for the company to carry out regular and continuous inspections and audits to ensure that the risk of fraud is minimized.

Knowing the status quo currently being experienced by PT Sehat Selalu Banyak Rejeki, a system is needed to cover these problems effectively and efficiently. In its implementation, the current system owned by PT Sehat Selalu Banyak Rejeki is still unable to reduce the occurrence of fraud at the depot office; this is evidenced by management statements directly related to several problems of abuse of authority in recent years. Supported the inefficient and ineffective implementation of monthly field audits that require the head office or head office to make visits to each distribution area will result in delayed information for decision making

This study plans to create a web-based integration application that can unify the records between the depot and the head office and describe the implications of implementing the application. This application consists of modules focusing on cash flow and subsequent inventory flows; this application will be used by management to monitor and synchronize data between AMO and the head office. The purpose of making this application is to carry out internal control and prevent fraud in the company. In addition, the reports presented will be more complete, valid, understandable, and comparable. This is in line with the characteristics of an excellent report, namely, comparative, relevant, and easy to understand (Herath & Albarqi, 2017). In an integrated system, all existing information will be entered into one central database, making it easier to synchronize and extract complete information (Kot et al., 2019). So, through the previous description, the title of the research that was raised was "Optimization of Automated Sales System as an Effort to Minimize Fraud & Improve Internal Control in Distribution Company PT. Sehat Selalu Banyak Rezeki."

2. Literature Review

2.1 Internal Control

The COSO framework states that internal control is a set of means to cover an organization's entire process of the activity. Internal control has the meaning described by the Committee of Sponsoring Organizations of the Treadway Commission COSO (2013) as "Internal control is a business process affected by an organization within an entity that is designed to offer reasonable assurance about the achievement of objectives related to operations, reporting, and compliance". Internal control of a method includes basic controls: planning, implementing and monitoring internal control, but according to COSO (2013), there are five interrelated control components.

2.2 Sales Internal Control Management

Effective. Based on the law that was initiated by Sarbanes-Oxley where the rule requires that there be strong and effective internal control in the company, especially in the process of recording transactions and preparing financial reports, so that with this it can facilitate the company in providing directives for the company's operating activities. The benefits of exercising internal control are as follows: 1) providing assurance that assets are protected and used for business purposes, 2) confidence that the information presented is accurate, 3) and confidence that employees comply with applicable laws and companies, 4) belief that efforts have been made to protect company assets from theft, fraud, misuse, or misplacement.

One of the violations due to the ineffectiveness of internal control is the risk associated with employee fraud. Employee fraud (employee fraud) is a deliberate act to deceive the company for personal gain. Like theft, the excess of intentional recording in expense recognition. In a distribution company, several things require more control, especially in implementing the work system to avoid fraud and other risks of loss, namely: 1) the risk of fictitious sales or reporting so that the conditions of documentation and recording do not match the existing realization conditions, 2) risk of bad credit due to the provision of tempo or credit sales, and 3) misuse of the promo budget

2.3 Fraud Triangle

Fraud Triangle Theory (FTT) is an idea about the origin of an act of fraud (Iswahyudi, 2020). Three factors cause fraud: pressure, rationalization, and opportunity (Tiffani & Marfuah, 2015).

Based on SAS No. 99, there are 4 (four) types of conditions that commonly occur in pressure that can lead to fraud: financial stability, external pressure, personal financial need, and financial targets. At the same time, the opportunity itself consists of three categories of circumstances: the nature of the industry, ineffective monitoring, and organizational structure (Fraud Detection in a GAAS Audit: SAS No. 99 Implementation Guide, 2002). The next component that can cause fraud is rationalization. Rationalization is one of the causes of fraud because it is considered to justify the activities of the perpetrators. (Tiffani & Marfuah, 2015).

2.4 Business Process Analysis

Business processes can be said simply as a flow of activities. A business process describes a structured collection of tasks or actions to produce a particular service or product for one or more customers. For business process modeling it is imperative in the life cycle of Business Process Reengineering (BPR) (Sari & Asniar, 2015)

2.5 Previous Research

As for its implementation, providing solutions using a web-based integrated information system at trading companies is based on several previous studies that offered positive comments, which are described in the following table:

Table 1. Previous Research Summary

Research Title	Author	Result
Internal Control, organizational Culture, and Quality of Information Accounting to Prevent Fraud: Case Study From Indonesia's Agriculture Industry	(Setyaningsih & Nengzih, 2020)	<i>The results of the study show that some weaknesses of the internal controls have been identified as one of the factors of fraud. The results show that Internal Control Organizational Culture and Quality of Information Accounting have a positive significant effect to prevent fraud.</i>
Management's Materiality Criteria of Internal Control Weaknesses and Corporate Fraud: Evidence from China	(Wu & Wang, 2018)	<i>The article find that when companies committed fraud in the previous year that remains undetected, their management is more likely to use revenue (rather than pretax income) as the first-time benchmark and to set a higher revenue-based materiality threshold as well. Moreover, once the materiality metrics are set, the first-time revenue-based materiality threshold is significantly and positively associated with subsequent incidence of corporate fraud, which suggests that setting deviant and loose materiality metrics leaves room for the management to engage in future misconduct.</i>
The Impact of Internal Control and Individual Morals on Fraud: An Experimental Study	(Efrizon et al., 2020)	<i>Results show differences among individuals under the conditions of present or absent internal control to commit fraud. Moreover, there are differences among individuals who have high and low levels of individual morality to commit fraud. Finally, results reveal that the interaction between individual morality and internal controls lead to fraud</i>

3. Research Method

Research methodology is defined as a series of processes to guide the system development process. In preparing this research, the methods used are 1) the Agile method for developing applications and 2) the qualitative descriptive method in describing the implications of implementing ISSS to support financial validity.

According to Pressman (2010: 82) Agile method development method is software development that has a short period and can adapt to changes that may occur during the process of developing the system. One method that can be said to be an agile development method if it is interactive, incremental, flexible, responding to charge, and lightweight, but there is still a critical thing about the Agile development method, namely how to describe a system that can be understood easily and can solve party problems. **Clients.**

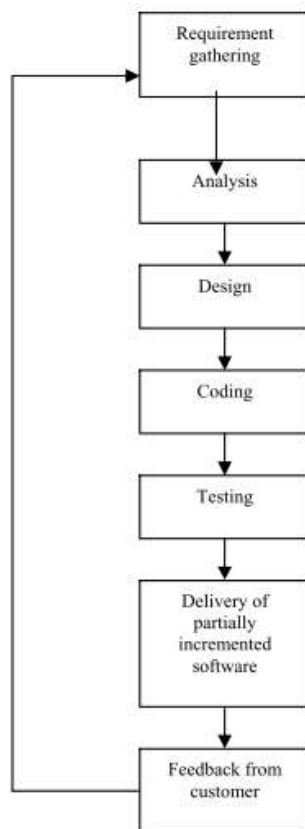


Figure 1. Agile Method implementation cycle (Sharkie, n.d. ; 2018)

Requirement Gathering

In a method for solving problems, the first thing that must be done is to analyze the situation (the status quo) and then look for the most appropriate alternative. In this stage, researchers and software developers identify problems, determine stakeholders, formulate steps for completion by making roadmaps, and collect required documents and various other information. At this stage, it is essential to collaborate and unify the system development objectives and implementation mechanisms. At this stage, data is collected and examined at the feasibility level and project scope using the PIECES Performance, Information, Economics, Control, Efficiency, Service framework. This is done to find the core of existing problems (problems), opportunities to improve organizational performance (options), and new needs imposed by management or the government (directives).

Analysis

After collecting data, what was done by the researcher was to analyze the problem and determine the proper steps to solve the problem. At this stage, the problem identification process uses BPMN (business process management notation) so that with the visualization of the overall business flow, it is possible to analyze the efficiency and effectiveness of various ongoing business activities, especially in the marketing distribution aspect.

Design

The practice of research design using the ERD system (entity relationship diagram). The design stage is the stage in conducting program preparation based on the roadmap and previous analysis. In this stage, the drafting team identifies stakeholders and the primary or secondary key in each process to be visualized through the coding stage. This stage aims to transform business requirements from the requirements analysis phase to the model system that will be built later. In other words, this phase answers questions about the use of technology (data, process, interface) that ensures usability, reliability, completeness, performance, and quality built into the system.

coding

Coding is the stage where the IT team performs activities to visualize the programming design that was conceptualized before into a programming language to produce output in the form of a system. In its implementation, the coding process is carried out using CSS (Cascading Style Sheet), HTML (Hypertext Markup Language), Java Script, J-query, and PHP (Hypertext Preprocessor) with the use of a framework called Larafell, which is a framework that can assist web developers in maximizing the use of PHP in the website development process, as well as the database used is My SQL which is conceptualized on a private page to then produce output in the form of a website-based system that is connected to a specific address.

Testing

The testing stage is a stage where the entire team conducts trials related to the implementation of the program made to check: 1) the suitability of the system made with the concept that was prepared previously, 2) error analysis when the application is run, 3) minimizing the existence of fraud so that it is accompanied by with the development of a security system and other considerations, and 4) smooth development of each stakeholder involved in the development of a system.

Delivery of Partially Incremented Software

The results of the trial process carried out previously, at this stage, were followed up with improvements and further evaluation of the system developed

Feedback from User

The question is whether the IT team has the same use as the function of each user; data collection is carried out in the form of percentages or questionnaires *to ensure there are benchmarks. In a business, the important thing in development is based on customer orientation. So it can be concluded that the customer has an essential role in developing a system; knowing the following, the IT team needs to provide an option or a form of system mechanism where the company can communicate directly with the customer or customer.

4. Results and Discussion

4.1 Historical System Changes through BPMN (Business Process Management Notation) analysis

BPMN provides a standardized visualization of the modeling of a business process so that the flow and schema of the business process, in general, can be more easily read and understood by all components involved in the business. The existing business processes at PT Sehat Selalu Banyak Rejeki include a series of activities that involve several business components within the company. The complexity of existing business processes has not yet been visualized in a model. Identifying and modeling business processes is one of the initial stages in building competitive advantage through business processes. Identifying and modeling ongoing business processes (As-Is Model) will assist management in identifying potential changes that will occur to support the efficiency and effectiveness of existing activities and ultimately improve business process performance. At PT Sehat Selalu Banyak Rejeki, one of the core processes in the running business is the distribution business scheme or sales implementation. In carrying out the process, PT Sehat Selalu Banyak Rejeki has undergone many system changes in the sales business process scheme, which consists of the stages which are visualized as follows:

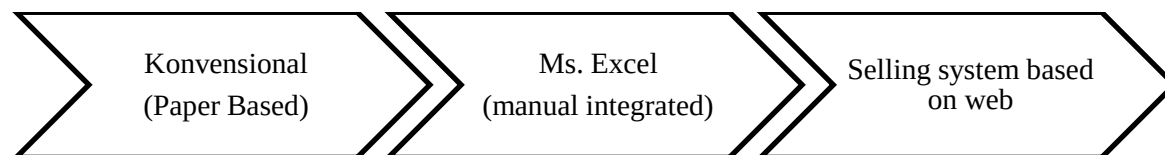


Figure 2. Historical Scheme of sales information system development at PT SSBR

So that in, the historical Scheme can be described in the visualization of BPMN as follows:
Conventional System (Paper-based)

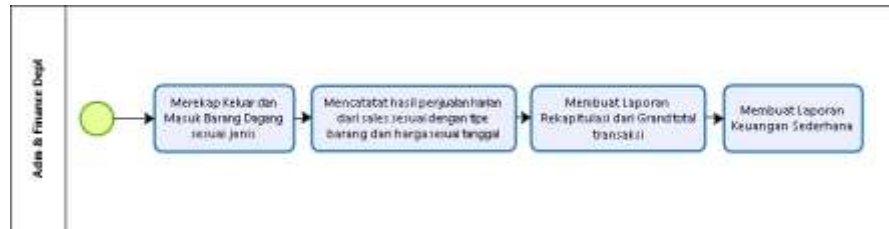


Figure 3. PT SSBR Conventional System Semi-Automation (Ms. Excel Basic)

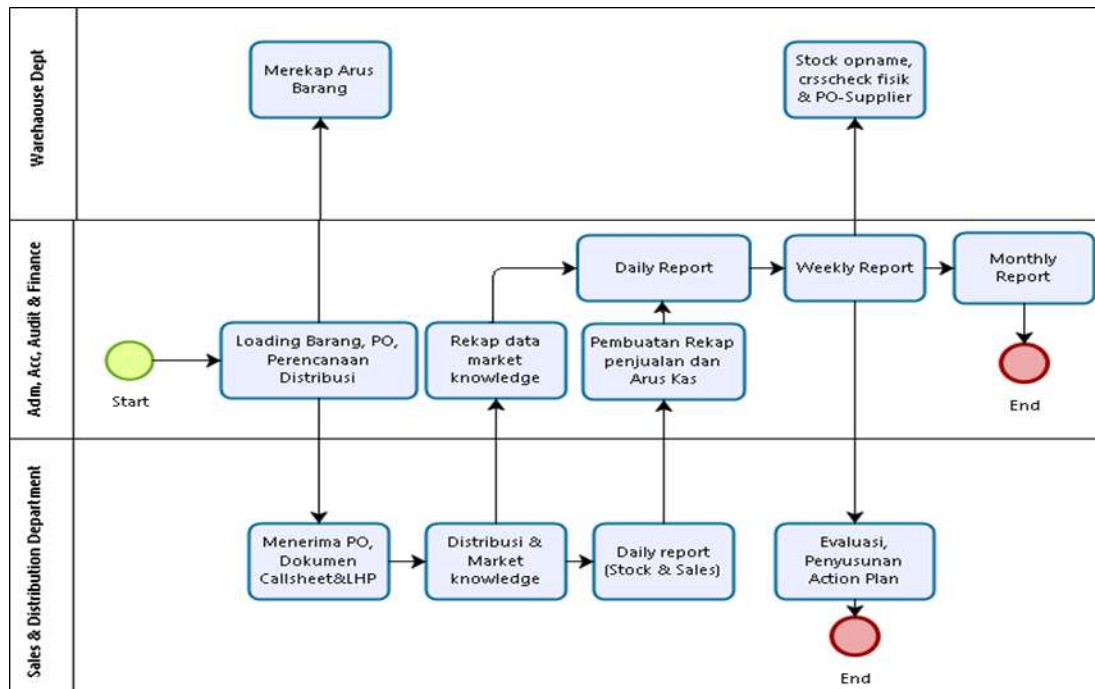


Figure 4. Semi-Automatic System (Ms. Excel Basic)

Automation (Application based on the Web)

The use of the Web in the sales information system development option is considered to know the facilities provided, such as 1) private Web and cloud so that company information can be kept confidential, 2) easy access through several devices, 3) customize which can be managed independently according to company needs. The following will be explained further in the sub-chapter of the development of the BPMN system, which should be able to support internal control and support the company's efforts to minimize fraud.

4.2 Implementation of Internal Control using the COSO framework

In research conducted at PT Sehat Selalu Banyak Rejeki. Internal control aims to optimize the automated sales system to minimize fraud and improve internal control in the company. This can be done by knowing the internal control by comparing the theory in the field at PT Sehat Selalu

Banyak Rejeki. According to the Committee of Sponsoring Organizations (COSO), the standard used is regarding the elements of internal control.

Table 2. Standard analysis used through the COSO framework

No.	Komponen	Prinsip	Point Of Focus
1	Kontrol Lingkungan	Organisasi menunjukkan dedikasi terhadap cita-cita etis dan integritas	a) <i>a) There are regulations in every company</i> b) <i>b) Setting the standard</i> c) <i>c) Evaluating compliance with behavioral standards</i> d) <i>d) Follow up on fraud committed in a timely manner..</i>
		Exercises on vision responsibility	a) <i>a) Assign supervisory responsibilities to the Business Owner</i> b) <i>b) Ownership of Business Owner expertise</i> c) <i>c) Independence of Business Owner</i> d) <i>d) Supervisor is responsible for all areas.</i>
		Create organizational structure, authority, and responsibility	a) <i>a) Creating an organizational structure</i> b) <i>b) Implementing the required reporting flow by establishing an organizational structure that pays attention to these aspects.</i> c) <i>c) Determination, granting, and limitation of Authorities and Responsibilities.</i>
		Demonstrate commitment related to competence	a) <i>a) Being in HR commitments and practices can build and retain employees</i> b) <i>b) Develop and prepare for succession</i>
		Enforce accountability	a) <i>a) Uphold accountability through accountability activities.</i> b) <i>b) Establish performance measures, incentives, and rewards</i> c) <i>, c) Evaluate performance measurement, incentives, and</i>

No.	Komponen	Prinsip	Point Of Focus
			<i>rewards to maintain relevance</i> <i>d) , and d) Given excessive pressure.</i> <i>e) e) Evaluating Performance, rewarding and imposing penalties</i>
2	Risk Assessment	Determine appropriate objectives: Attributes related to operating objectives and external financial reporting objectives. Attributes related to external non-financial reporting purposes, Objectives of internal reporting (financial and non-financial), and Attributes related to compliance objectives	<i>a) a) It reflects the decisions made by management.</i> <i>b) b) Consider risk tolerance</i> <i>c) c) Knowing the objectives of operating and financial performance</i> <i>d) d) Make compliance from the ground up to allocate resources</i> <i>e) e) Comply with all applicable accounting rules</i> <i>f) f) Considering materiality</i> <i>g) g) Reflecting the activities of organizational entities</i> <i>h) h) Adhere to the standards and frameworks set by external parties</i> <i>i) i) Taking into account the level of precision expected</i> <i>j) j) Presenting the activities of the organization's needs</i> <i>k) k) Reflect on management choices</i> <i>l) l) Taking into account the expected level of precision</i> <i>m) m) Presenting the activities of the organization's needs</i> <i>n) n) Comply with all relevant laws and regulations</i> <i>o) o) Taking into account risk tolerance</i>
		Identify and analyze risks	<i>a) a) Covers the needs of the company, division, activity unit, and level of f</i> <i>b) b) Analyze internal and external factors</i> <i>c) c) Include participation from each appropriate level of management</i> <i>d) d) Estimating the significance of the identified risks</i>

No.	Komponen	Prinsip	Point Of Focus
			e) <i>e) Determine how the risk will be addressed.</i>
		Assess the risk of fraud or irregularities	a) <i>a) Consider various possible frauds</i> b) <i>b) Assess the drives and pressures that lead to fraud</i> c) <i>c) Assessing the possibility of fraud</i> d) <i>d) Assess behavior and reasons for its occurrence</i>
		Identify and analyze significant changes	a) <i>a) Assess changes in the environment outside the organization</i> b) <i>b) Assessing business model changes</i> c) <i>c) Assess leadership changes</i>
3	Control Activities	The company determines and develops control measures to reduce risk and achieve an acceptable level of objectives.	a) <i>a) Complete the risk assessment</i> b) <i>b) Taking into account entity-specific factors</i> c) <i>c) Define relevant business procedures</i> d) <i>d) Evaluate the type of control that has many properties</i> e) <i>e) Taking into account the degree to which the action is implemented</i> f) <i>f) Separation of responsibilities</i>
		Select and design general technology controls.	a) <i>a) Determine the relationship between the use of technology in business operations and overall technology control.</i> b) <i>b) Build technology infrastructure to coordinate relevant activities.</i> c) <i>c) Establish relevant security management process control measures, and</i> d) <i>d) Establish relevant process control measures for technology</i>
		Policies and procedures are used to disseminate	a) <i>a) Establish policies and implementation processes and directives from the Board of Directors,</i> b) <i>b) Establish responsibilities and accountability in implementing</i>

No.	Komponen	Prinsip	Point Of Focus
			policies and procedures, c) c) Personnel who have the competence to carry out control activities carefully and continuously focused, personnel who are responsible for carrying out control operations following the schedule of policies and procedures, d) d) Officers are tasked with investigating and taking appropriate action if certain circumstances arise due to the implementation of control and management activities e) e) Evaluate control measures regularly to determine their relevance and their application as needed
4	Informasi dan Komunikasi	The organization obtains or creates high-quality data and uses it to support internal controls	a) a) Identify the necessary information needs; data should be collected from internal and external sources, b) b) Processing into relatively relevant information, maintaining the quality of information while processing information by considering the cost-benefit analysis.
		Communicate internally	a) a) Communicating about internal control to the person in charge, b) b) Organizing effective communication lines between business owners and supervisors, c) c) Establish different communication channels for internal parties, such as whistleblowers d) d) Establish appropriate communication methods.
		Communicating	a) a) Communication from external, organizing internal communication

No.	Komponen	Prinsip	Point Of Focus
		externally	<i>of the organization, communication with business owners.</i> <i>b) b) Provide specific communication connections that are not shared with others and establish relevant communication methods</i>
5	Monitoring	To define separate organizational processing.	<i>a) a) Consider a combination of ongoing and separate evaluations taking into account the speed of change,</i> <i>b) b) Build a knowledge base utilizing experienced employees,</i> <i>c) c) Completing business processes,</i> <i>d) d) Adjusting the scope and frequency of work and evaluating objectively</i>
		If necessary, internal control issues are examined and brought to the attention of those responsible for corrective action, such as senior management and the board of directors.	<i>Checking results and issues reported to individuals.</i>

4.3 Analysis of strategic efforts to reduce fraud

Based on the problem analysis above, it is proposed to perform semi-automation in the PT SSBR system. This research plans to develop an integrated approach that involves three parts: Sales, Administration & Finance, and Warehousing. The following is a breakdown of the duties of each of these departments:

1. Administration & Finance

This system's administration and finance are the current flow's center point. This department is responsible for making purchase orders as sales targets for the Sales section, then authorizing the goods to be sent to sales. Then the Administration & Finance section is responsible for evaluating reports in the form of Daily, Weekly, Monthly, to Annual Reports.

2. Sales

The Sales Department in this system receives goods, performs product knowledge, and makes sales reports.

3. Warehousing

The Warehousing Department is responsible for preparing goods when there is a purchase order to control incoming and outgoing inventory.

Overall, the system created will integrate between existing departments. Then from the integration of the system, internal control in the company will lead to one department, Administration and Finance, then Administration and Finance will report to the company leadership. This system also makes it easy for leaders to see the ongoing flow of goods because it shows real-time data for the company. This system reduces the risk of unrecorded items and late reports because the system automatically generates reports.

4.4 Business Processes Model & Notation Design

PT SSBR's Business Processes Model & Notation (BPMN) was designed using the Bizagi Modeller media. There are developments from the previous conventional system. The following is BPMN's proposal for internal control of PT SSBR; on the diagram, it can be visualized in the form of financial reporting and conditions such as:

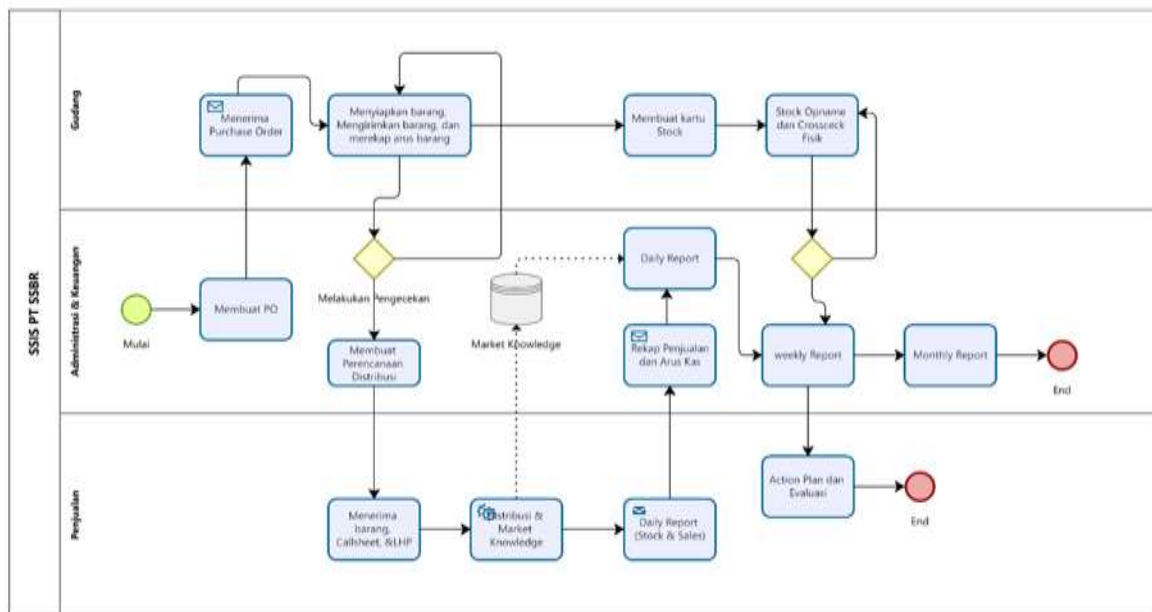


Figure 5. BPMN visualization after ISSS system implementation

The details are as follows:

1. Daily Sales Form is a form used to input daily sales results and costs incurred per sales unit. This form is a reference for the administration to carry out bookkeeping related to the amount of money deposited.
2. Daily Cash Flow is a breakdown related to how the cash flow runs for each day, which consists of the remaining cash on the previous day plus the receipts on the current day minus the

costs. Cash receipts in the present day are the correlation of any money received by sales on the sales report form. The function of this form, in addition to recapitulating cash activities on the current day, is to make it easier for the principal or owner to control what costs are incurred every day and how much income is received.

3. Monthly reports and expense details are an output report that recaps the results of transactions for the current month. Monthly reports are details of how much cash was received and for what purpose, then how much money remained in the current period. To support the detailed information in the monthly report, the cost details are used to show the costs' transparency. Information on all data in the report must be appropriate and in sync with each financial reporting (form), especially on sales details and daily cash flows.

The marketing evaluation analysis form correlates with the daily sales form. The function of this form is to identify sales developments per each unit related to sales progress (turnover) to become the basis for the personal evaluation process. It does not stop at global achievements; the evaluation of per team units is also carried out by identifying each product brand. This is to evaluate the distribution area and program planning.

5. Conclusion

The results of this study provide information that the implementation of an integrated web-based system which in this study is referred to as ISSS, can assist companies in improving internal control through the efficiency and effectiveness of business processes which are also visualized in the BPMN notation. This study also explains that implementing a web-based information system presented in the ISSS makes it easier for companies to minimize fraud to reduce material losses.

Daftar Pustaka

- Al-Eqab, M., & Adel, D. (2013). The Impact of IT Sophistication on The Perceived Usefulness Of Accounting Information Characteristics Among Jordanian Listed Companies. *International Journal of Business and Social Science*, 4(3), 145–155.
- ALsarayreh, M. N., Jawabreh, O. A. A., Jaradat, M. M. F., & ALamro, S. A. (2011). Technological impacts on the effectiveness of accounting information systems (AIS) applied by Aqaba tourist hotels. *European Journal of Scientific Research*, 59(3), 361–369.
- Edison, G., Manuere, F., Joseph, M., & Gutu, K. (2012). Evaluation Of Factors Influencing Adoption Of Accounting Information System By Small To Medium Enterprises In Chinhoyi. *Interdisciplinary Journal of Contemporary Research in Business*, 4(6), 1126–1141.
- Hati, R. P. (2017). Pengaruh Efektifitas Penerapan Sistem Informasi Akuntansi, Pemanfaatan dan Kesesuaian Tugas pada Kinerja Pengurus Koperasi (Aktif dan Terdaftar Di Dinas Koperasi dan Usaha Mikro). *Measurement : Jounal of The Accounting Study Program*, 11(1), 1–10. [https://doi.org/https://doi.org/10.33373/mja.v11i2.1746](https://doi.org/10.33373/mja.v11i2.1746)

- Herath, S. K., & Albarqi, N. (2017). Financial Reporting Quality : A Literature Review School of Business Administration. *International Journal of Business Management and Commerce*, 2(2), 1–14.
- Kot, S., Štefko, R., Dobrovič, J., Rajnoha, R., & Váchal, J. (2019). The main performance and effectiveness factors of sustainable financial administration reform using multidimensional statistical tools. *Sustainability* (Switzerland). <https://doi.org/10.3390/su11133609>
- Otinur, F., Pangemanan, S. S., & Warongan, J. (2017). Analisis Sistem Informasi Akuntansi Dan Sistem Pengendalian Internal Persediaan Barang Pada Toko Campladean Manado. *Going Concern : Jurnal Riset Akuntansi*, 12(01), 169–179. <https://doi.org/10.32400/gc.12.01.17202.2017>
- Ratnaningsih, K. I. (2016). Pengaruh Kecanggihan Teknologi Informasi, Partisipasi Manajemen, dan Pengetahuan Manajer Akuntansi pada Efektivitas Sistem Informasi Akuntansi. *E-Jurnal Akuntansi Universitas Udayana* 6.1 (2014):1-16, 1, 1–16.
- Romney, B. M., & Steinbart. (2015). *Sistem Informasi Akuntansi*. Salemba Empat.
- Fraud detection in a GAAS audit: SAS No. 99 implementation guide, American Institute of Certified Public Accountants, Inc. 1 (2002). <https://core.ac.uk/download/pdf/288061006.pdf>
- Al-Okaily, A., Al-Okaily, M., Shiyyab, F., & Masadah, W. (2020). Accounting information system effectiveness from an organizational perspective. *Management Science Letters*, 10(16), 3991–4000. <https://doi.org/10.5267/j.msl.2020.7.010>
- COSO. (2013). *Internal Control — Integrated Framework for the Executive Summary*. Coso, May, 1–20. <https://www.coso.org/Pages/ic.aspx>
- Hall, J. A. (2011). *Accounting Information Systems Seventh Edition*. Cengage Learning.
- Iswahyudi, M., & S, P. E. (2020). Sebuah Analisa Fraud Triangle “Determinan Fraud Laporan Keuangan Perusahaan Plat Merah.” *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 8(4), 1222–1230.
- Romney, M. B., & Steinbart, P. J. (. (2015). *Accounting Information Systems Thirteenth Edition*. : Pearson Education, Inc.
- Sari, S. K., & Asniar, A. (2015). Analisis Dan Pemodelan Proses Bisnis Prosedur Pelaksanaan Proyek Akhir Sebagai Alat Bantu Identifikasi Kebutuhan Sistem. *Jurnal Informatika, Telekomunikasi Dan Elektronika*, 7(2), 143–152. <https://doi.org/10.20895/infotel.v7i2.137>
- Tiffani, L., & Marfuah. (2015). Deteksi Financial Statement Fraud dengan Analisis Fraud Triangel pada Perusahaan Manufaktur yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Akuntansi Dan Auditing Indonesia*, 19(2), 112–125.
- Abrahamsson, P., Salo, O., Ronkainen, J., & Warsta, J. (2017). Agile software development methods: Review and analysis. *CoRR*, abs/1709.0.

- Akinleye, G. T., & Kolawole, A. D. (2020). Internal controls and performance of selected tertiary institutions in Ekiti state: A committee of sponsoring organisations (coso) framework approach. *International Journal of Financial Research*. <https://doi.org/10.5430/IJFR.V11N1P405>
- COSO. (2013). *Internal Control — Integrated Framework Executive Summary*. Coso, May, 1–20.
- Mustori, M. (2012). *Pengantar Metode Penelitian*. 102.
- Park, K., Qin, J., Seidel, T., & Zhou, J. (2021). Determinants and consequences of noncompliance with the 2013 COSO framework. *Journal of Accounting and Public Policy*. <https://doi.org/10.1016/j.jaccpubpol.2021.106899>
- Raco, J. (2018). *Metode penelitian kualitatif: jenis, karakteristik dan keunggulannya*. <https://doi.org/10.31219/osf.io/mfzuj>
- Sharkie, C. (n.d.). *Agile Development for Web and Mobile Teams*. In America.
- Turner, L., & Weickgenannt, A. B. (2017). *Accounting Information Systems: Controls and Processes*.
- Efrizon, E., Febrianto, R., & Kartika, R. (2020). The Impact of Internal Control and Individual Morals on Fraud: An Experimental Study. *Jurnal Ilmiah Akuntansi Dan Bisnis*, 15(1), 119. <https://doi.org/10.24843/jiab.2020.v15.i01.p11>
- Setyaningsih, P. R., & Nengzih, N. (2020). Internal control, organizational culture, and quality of information accounting to prevent fraud: Case study from Indonesia's agriculture industry. *International Journal of Financial Research*, 11(4), 316–328. <https://doi.org/10.5430/ijfr.v11n4p316>
- Wu, X., & Wang, J. (2018). Management's Materiality Criteria of Internal Control Weaknesses and Corporate Fraud: Evidence from China. *International Journal of Accounting*, 53(1), 1–19. <https://doi.org/10.1016/j.intacc.2018.02.001>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>)