World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(RESEARCH ARTICLE)

Check for updates

Implementation of Enterprise Resource Planning in Odoo Website-Based Supply Chain Management to Increase Business Effectiveness in Fruit Businesses in Gowa Regency

Azrul, Muhammad Rakib * and Andika Isma

Faculty Of Economics, Universitas Negeri Makassar, Makassar, Indonesia.

World Journal of Advanced Research and Reviews, 2025, 28(01), 1882-1893

Publication history: Received on 12 September 2025; revised on 19 October 2025; accepted on 22 October 2025

Article DOI: https://doi.org/10.30574/wjarr.2025.28.1.3594

Abstract

This study aims to design and implement Enterprise Resource Planning (ERP) in supply chain management based on the Odoo website at Manis Buah 777 MSMEs. The type of research used in this study is qualitative research using a qualitative descriptive approach which is divided into 3 stages consisting of the planning stage, the implementation stage, the reporting stage. The Odoo ERP system was chosen because it has flexible modules and is in accordance with the needs of MSMEs, especially in inventory management, sales, and accounting. The results of this study indicate that the implementation of Odoo ERP can help of fruit businesses in managing its supply chain management by increasing operational effectiveness, simplifying the process of recording financial transactions and managing inventory. Thus, the Odoo ERP system can be used as a digitalization solution for MSME business management, especially in supporting the effectiveness and efficiency of business operational processes.

Keywords: Supply Chain Management; Enterprise Resource Planning; Odoo Website; Business Effectiveness

1. Introduction

The globalization of the economy has a significant impact on business growth and development. Rapid advances in technology and science have created a sound concept for exploring potential business growth and development. Information technology plays a key role in facilitating transactions between online business elements, with the internet serving as a medium and facility. Consumers can now easily decide or choose to purchase goods online, and subsequent transactions require different technologies to support these businesses. According to Rahmatullah [1].' There has been an increase in supporting the community's economy, including business management, which has also been influenced by the transformation of digital technology, particularly software. The goal is to continuously improve the quality of products and services to consumers, including buying and selling activities, by implementing electronic devices to facilitate business control, resource management, and financial management.

The development of digital technology has brought fundamental changes to various aspects of life, including the way businesses operate and interact with customers. Digitalization has created new opportunities to increase efficiency, expand markets, and create innovative business models. However, digital transformation also presents significant challenges. Supply chain management is one of the challenges companies must face. In line with what was conveyed [2].' That in the midst of increasingly tight business competition and increasing customer demands, the supply chain system is one of the main pillars in maintaining smooth business operations.

* Corresponding author: Muhammad Rakib

Supply chain management is a concept or mechanism for improving a company's overall productivity within a supply chain by optimizing the flow of materials, time, and location. Supply chain resilience is a particularly useful concept for managing risk and disruption. Designing strategies for preparedness, response, and recovery can help businesses mitigate risks and disruptions. Among other things, flexible strategies can effectively enhance supply chain resilience [3].' Each dimension reinforces each other, creating a synergistic effect that drives overall supply chain performance. For example, better internal integration improves an organization's ability to collaborate with suppliers, while effective customer engagement provides the data needed to optimize supplier relationships [4].' Well-built supply chain management indicates that a company's competitiveness is also high, therefore with proper implementation, supply chain management can help a company to be more responsive to major changes, reduce costs, and increase customer satisfaction, as well as gain competitive advantages in the market.

Managing a complex supply chain requires careful strategy, investment in the right technology, and strong collaboration between all parties involved. With the advancement of technology, a new alternative to address these challenges is the implementation of enterprise resource planning in supply chain management for an Odoo website-based business. The goal of enterprise resource planning is to integrate and consolidate all systems across an organization into a single system that can meet and serve the unique needs and tasks of each department [5].' Odoo is a comprehensive management software offering a variety of business applications that form a complete business management suite. Odoo is designed to meet the needs of businesses of all sizes. Odoo has been used by many users and companies worldwide to manage their businesses. This demonstrates Odoo's reliability and continuous updates, making it one of the most widely used applications on the market, especially in ERP systems. Odoo is created and distributed open source, and includes various modules, including Sales, Inventory, Accounting, and more. The implementation of Odoo's website-based enterprise resource planning aims to increase trust, visibility, and efficiency based on supply chain records. A website allows for clearer product information, easier visitor access, and increased visitor numbers and business branding [6].' The Odoo website is a technology with potential for supply chain design, organization, operation, and management. The Odoo website's ability to ensure the reliability, traceability, and authenticity of information, applicable in environments with unknown and distrustful users, represents a new way of thinking about supply chains and supply chain management. Utilizing this Odoo website-based enterprise resource planning system can increase work productivity by reducing administrative burdens and accelerating workflows [7].'

Micro, Small, and Medium Enterprises (MSMEs) often face various obstacles in managing their supply chains, especially when using traditional management systems. These obstacles can hinder the growth and efficiency and effectiveness of their business operations. Overcoming these obstacles requires a planned approach focused on process improvement and the adoption of technology that is appropriate to the needs and capacities of MSMEs. One business that still uses a traditional system in managing its supply chain management is "Manis Buah 777," located in Gowa Regency, South Sulawesi. Today, fruit businesses still implement a traditional supply chain management system without the use of digital technology. This is characterized by the processes used in operating the fruit businesses supply chain management business which are still manual-based, limited transparency, and reliance on physical documentation.

Fruit businesses is a business engaged in the culinary field. fruit businesses as a business that provides a variety of fresh fruits ranging from local to imported fruits and provides processed fruit products. in the operation of supply chain management in the fruit businesses is still manual-based, limited transparency, and reliance on physical documentation. fruit businesses has problems in its supply chain management such as, supply chain responsiveness, supply uncertainty, non-transparency of the supply chain, communication problems, inefficient inventory management, and higher levels of errors and risks due to the system that is still traditional. For these problems, fruit businesses will implement an enterprise resource planning system based on the odoo website in managing its supply chain management. The enterprise resource planning system based on the odoo website adopted by the fruit businesses can be a good solution for the development of its supply chain management because it is able to increase effectiveness, transparency, and responsiveness to the progress and development of the fruit businesses.

2. Material and methods

2.1. Material

2.1.1. Supply Chain Management

Supply chain management is primarily defined as the science of logistics management as an integrated system that coordinates the entire process within an organization/company that prepares and delivers products or goods to consumers. This process encompasses planning, sourcing inputs, namely raw materials from suppliers, transforming raw materials into finished goods, transportation, distribution, warehousing, information systems, payment for goods,

and finally, the final stage, product or goods return services. The return process includes recycling activities, returning damaged goods, or replacing damaged goods with new goods [8].' Apart from management support, other requirements in implementing supply chain management involve external factors, namely suppliers and distributors [9].' So it can be said that supply chain management is a multidisciplinary concept that combines computer science, business management, information systems, and engineering [10].'

2.1.2. Business Development

Business development is the process of preparing and analyzing potential growth opportunities, supporting, and monitoring their implementation. The concept of business development refers to establishing and managing strategic relationships and alliances with others. Business development emphasizes marketing strategies and product innovation to create customer value and long-term growth [11].' Entrepreneurial characteristics are the foundation for starting a business, because strong characteristics are needed to face every challenge and risk that will arise in business activities [12].' An innovative attitude, the ability to identify risks, activeness, discipline, commitment, honesty, creativity, the ability to innovate and awareness of responsibility for the company are some of the characteristics of entrepreneurship in business development [13] [14].' Implementing business development requires support from various aspects, such as production and processing, marketing, human resources, technology, and others. Furthermore, commitment also impacts business performance. An entrepreneur must have a strong commitment to successfully manage their business or improve its performance. Without this commitment, an entrepreneur will fail because they cannot guarantee the sustainability of their business [15].'

2.1.3. Enterprise Resource Planning

Enterprise resource planning or ERP is a database system that supports the management of medium-sized and large companies by collecting and processing data with a variety of integrated functional modules that optimize business processes both internally and, in the company's, environment [16].' In general, ERP functions to integrate and automate various functions within an organization using a single, centralized software system. ERP is a software system that integrates various business functions into one system. ERP connects different departments (such as finance, production, human resources, marketing, and logistics) into a single platform, enabling real-time information flow. [17].' In this system, it is designed for all company business processes to be included in an integrated application so that the data used by all departments in the organization will be centralized, which ensures that the information accessed by all parties is consistent and up-to-date information [18].'

2.1.4. Business Effectiveness

Business effectiveness generally focuses on the extent to which an organization or company is able to achieve its stated goals and objectives in an optimal manner, using available resources efficiently. Business effectiveness can be measured by how well a company is able to meet market needs, respond to change, and maintain and improve its competitive position [19].' The concept of effectiveness in business has evolved from simple notions of efficiency and profitability to a more complex approach, encompassing factors involving customer satisfaction, sustainability, and responsiveness to market changes [20].' Business effectiveness is now understood as achieving strategic objectives in a way that is sustainable, innovative, and oriented towards long-term value for all stakeholders.

2.2. Methods

The type of research used in this study is descriptive qualitative. A qualitative approach was chosen because this study aims to examine and describe the implementation process of Odoo website-based enterprise resource planning (ERP) in supply chain management in depth and holistically. The descriptive method is used to present data as is in the form of narrative descriptions, without variable manipulation or special treatment [21].' Therefore, this approach is suitable for studying the implementation process of Odoo website-based enterprise resource planning in fruit businesses in increasing business effectiveness. This research will be conducted in one of the MSMEs located in Gowa Regency, namely Manis Buah 777 business located in Romangpolong, Somba Opu District, Gowa Regency, South Sulawesi. The focus of this research is to examine how the process of implementing an enterprise resource planning system in supply chain management based on Odoo website in increasing business effectiveness in fruit businesses. The test subjects in this research are the owner or shop owner and employees of fruit businesses. In this research, data collection techniques will be used in the form of interviews and documentation studies. Meanwhile, for data analysis techniques in this research, data analysis techniques based on system functionality will be used [22].' Functional system analysis is a process to evaluate the extent to which the system has functioned according to user needs and the specifications that have been designed [23]. This technique is used to understand how the Odoo website-based ERP system functions in supporting supply chain management and how the interrelationships between functions within the system can increase business effectiveness in the fruit businesses.

3. Result

3.1. Operational Conditions Before Implementing Odoo Website-Based Enterprise Resource Planning at the Manis Buah 777 Business

Manis Buah 777 is a small and medium enterprise (SME) located in Romangpolong, Somba Opu District, Gowa Regency, South Sulawesi. Manis Buah 777 operates in the culinary industry. It was founded in 2019. fruit businesses currently manages its business operations, including recording transactions, inventory, and ordering manually using notebooks. This often leads to uncertainty in stock recording, resulting in an imbalance between inventory and customer demand. For example, several cases have occurred where customers place large orders, but the available stock is insufficient due to recording errors. Furthermore, order management and distribution processes also experience challenges. Delays in inputting order data often result in discrepancies between the quantity of products shipped and the quantity ordered.

Based on interviews and field observations, it was found that the supply chain management conditions at fruit businesses before the implementation of the Odoo website-based enterprise resource planning (ERP) were still dominated by manual systems. All transaction recording, inventory management, and financial reporting activities were carried out using simple notebooks. This method created several obstacles, such as delays in recording transactions, difficulties in monitoring stock levels, and data discrepancies between administrative records and actual conditions in the warehouse. This resulted in a high risk of errors in the inventory management process, such as excess stock that could potentially cause losses due to damaged or expired goods, or stock shortages that hampered the fulfillment of customer demand. Furthermore, the reporting process is time-consuming due to the need to gather data from various sources, resulting in information that is not always relevant to decision-making needs. This situation not only impacts the quality of decision-making but also reduces employee productivity, as much of the time is spent manually recording and verifying data. Further impacts are seen in suboptimal customer service, as order processing is often slow and customers do not immediately receive confirmation regarding product availability. A detailed overview of the supply chain management conditions of fruit businesses before implementing Odoo website-based enterprise resource planning can be seen in the following table

Tabel 1 Operational Conditions of the Fruit Businesses Before Implementing Odoo Website-Based Enterprise Resource Planning

No.	Aspect	Condition	Impact
1.	Information System Transparency	The information system is manual using simple notebooks. Reports are only known to the owner	Lack of transparency of information and potential for miscommunication can slow down the decision-making process because data cannot be accessed by employees
2.	Data Reliability	Sales, purchase and stock data are recorded separately without synchronization	Input errors and data duplication often occur due to manual recording, resulting in differences between physical stock and report data and financial reports are often inaccurate
3.	Data Security	Documents are stored in physical form (paper archives) without digital backup	There is no data protection, the risk of losing archives is high so that data is easily lost, damaged or manipulated because there is no authorization system
4.	Supply Chain Responsiveness	Ordering of raw materials and delivery is done manually via telephone or text message	Stocks often run low because there is no automatic warning system for reorders, so coordination with suppliers and customers is often late, causing supply delays
5.	Employee Productivity	A lot of time is spent on manual recording, data matching, and communication between departments	Low productivity due to repetitive and inefficient administrative work
6.	Order Processing	Customer orders are processed manually via telephone/WhatsApp,	There are frequent delays in order fulfillment and the potential for orders to fail due to unmonitored stock

		without an integrated system with stoc	
7.	Decision-making	Decisions based on the owner's intuition and experience, without accurate real-time data	Risk of miscalculation, inappropriate strategy, difficulty in planning procurement and distribution
8.	Customer Service	Stock and shipping information is uncertain, manual communication	Customer satisfaction levels decline due to delays and uncertainty in service

(**Source:** Observation Results, 2025)

3.2. Design of an Enterprise Resource Planning System Based on the Odoo Website for the Fruit Businesses

Based on observations and interviews conducted at the fruit business, several issues were identified that hampered its supply chain management operations, resulting in suboptimal fruit business operations. These challenges include disparate and poorly integrated systems, lack of inventory visibility and control, inefficient ordering and purchasing processes, production management issues, distribution and logistics difficulties, and limited reporting and analysis. Under these conditions, fruit businesses often experience inefficiency, wasteful costs, and difficulty in decision-making.

The first step in this planning phase is to understand the specific needs of fruit businesses. Researchers and Manis Buah identified the current business processes, identified key challenges, and evaluated areas requiring automation. Some key questions that need to be answered in this phase include: what inefficiencies in the supply chain are still experiencing, what modules are needed, and how this system will be integrated with existing software.

In response to this, researchers and fruit business owners decided to implement the Odoo website-based Enterprise Resource Planning (ERP) system to manage their supply chain. Odoo is a Belgian ERP business management software technology widely used by companies in various countries. One reason Odoo is so popular is because it is free to use. Odoo is open-source software, so companies and businesses can download it directly from the official Odoo website without paying usage or licensing fees. From the problems that exist in the fruit business, the next step is to start selecting relevant Odoo modules to be applied to the fruit business. Each module is configured to suit the fruit business workflow. Considering the business needs of the fruit business, several modules from the Odoo website were determined as solutions to overcome these problems. Some of the modules from the Odoo website that will be used in managing the supply chain management in the fruit business include Purchasing, Inventory, Sales, Accounting, Shipping, and Customer Relationship Management.

The fruit business owner realized that using the Odoo website-based ERP system could be a solution to this problem. As a step forward, the fruit business considered adopting an ERP system in stages. With an integrated system, inventory recording, ordering, and financial management could be more efficient and accurate. However, the owner also stated that limited resources and a lack of understanding of technology implementation were key challenges in implementing ERP in his business.

After understanding the needs of the fruit business, researchers and fruit business owners planned an Odoo website-based ERP system to help address the fruit business's challenges by providing an integrated system, process automation, and better visibility into the entire supply chain. Based on several ERP software options studied, Odoo was the most relevant and offered flexible and affordable pricing for the fruit business, at around IDR 300,000 per month. Furthermore, Odoo, as an open-source ERP platform, offers features for appointment management, schedule planning, inventory management, customer management, and other features that are certainly suited to the needs of the fruit business.

The implementation of an Odoo website-based Enterprise Resource Planning system for a fruit business is the stage carried out after the system planning stage. At this stage, the system begins to be designed according to the predetermined business needs. As a first step in implementing an Odoo website-based ERP for a fruit business, an evaluation of the existing work system is carried out to ensure that this new system can truly address existing problems. Based on the results of observations and interviews that have been conducted on business management in the fruit business, several modules from the Odoo website have been proposed to be implemented in the fruit business to be able to increase its business effectiveness, including the following:

3.3. Purchasing

The Purchasing module in Odoo is one of the most important modules for managing the procurement process of goods and services in a company, including MSMEs. This module allows users to efficiently monitor the procurement of goods

and services from suppliers, from purchase requests to receipt of goods and payments. The Odoo website-based Purchasing module at fruit businesses can make it easier to manage the procurement of goods and services efficiently through better system integration. This module not only manages purchases from suppliers internally but also allows purchases through the Odoo website, which can serve various purposes, both for procurement of goods and purchasing from online suppliers.

Interviews with fruit business owners revealed that prior to the Odoo website-based ERP system, coordination was often hampered because purchasing information was not immediately communicated. With the ERP system, raw material needs can now be better predicted because purchasing and stock reports are readily accessible. Based on this statement, it can be stated that the implementation of the Purchasing module in the Odoo ERP system has had a significant impact on the effectiveness of the procurement process in fruit businesses. Before the ERP implementation, the purchasing process often experienced delays due to manual coordination between operations, purchasing, and finance. After the ERP system was implemented, raw material needs can be monitored in real time through the inventory dashboard, allowing purchase requests to be made in a timely manner. Furthermore, the implementation of the Purchasing module in Odoo ERP improves the operational effectiveness of fruit businesses by shortening purchase processing times, improving data accuracy, and reducing the risk of production disruptions due to raw material delays. The system also supports faster decision-making because information is centrally available and up-to-date.

3.4. Inventory

The Inventory Module in the Odoo website-based supply chain management system at fruit businesses is a key component that enables the business to efficiently manage stock, optimize product flow, and monitor inventory status within a cloud-based system. The Inventory Module is crucial to its supply chain management because it focuses on inventory management, warehouse management, and integration with other systems. Implementing the Inventory Module in this business will help manage its business by improving storage efficiency, optimizing product movement, and accelerating the delivery process to customers. This flexible and automated system helps the business reduce operational costs and improve customer service.

Interviews with the owner of fruit businesses revealed that this module reduces the potential for stockouts and excess inventory. Based on these interviews, it can be concluded that the implementation of the Inventory module in this small business has had a positive impact, namely increasing the accuracy of inventory reports, which are now accessible to management at any time. Real-time data enables the small fruit business to plan better, reduce waste, and improve customer service. This supports operational sustainability while increasing business competitiveness in a dynamic market.

3.5. Sales

The sales module in Odoo is used to support the business processes of fruit businesses, managing and automating all sales processes, from manufacturing to shipping goods to customers. This module is crucial for fruit businesses growth as it is highly useful for both in-store and online sales. With features such as quote creation, price and discount management, shipping management, and inventory integration, businesses can automate their sales processes and improve the customer experience. The system also provides useful reports for evaluating performance and planning future sales strategies.

Interviews with the owner of fruit businesses indicate that this module reduces the risk of order recording errors and speeds up the customer confirmation process. Based on this information, it can be concluded that the implementation of the Sales module at fruit businesses has resulted in an integrated and transparent sales process. Quotations, order confirmations, and invoice issuance can be done digitally within a single system. Customer data, transaction history, and payment status are automatically recorded, making it easier for the team to provide fast and accurate service. This allows Manis Buah 777 to run its entire sales process more easily, quickly, and efficiently, while simultaneously increasing conversion rates and customer satisfaction.

3.6. Accounting

The Accounting module on the Odoo website is an integral part that allows fruit businesses to manage its finances efficiently and is directly integrated with other processes within Odoo, including the sales, inventory, and e-commerce modules. On the Odoo website, the accounting module plays a crucial role in ensuring accurate recording of financial transactions, financial reporting, and payment tracking. With the implementation of the accounting module at fruit businesses, the entire accounting process is now digitized and integrated. Recording of sales, purchases, payments, and financial reporting transactions is carried out automatically. This system is also directly connected to the Sales,

Purchase, and Inventory modules, so that every transaction that occurs is automatically recorded in the financial reports without the need for duplicate input. This was conveyed and confirmed by the owner of fruit businesses during an interview.

Based on the interview results, it can be concluded that the accounting module implemented at fruit businesses has digitized and integrated all accounting processes. Recording of sales, purchases, payments, and financial reporting transactions is automated. This system is also directly connected to the Sales, Purchase, and Inventory modules, so every transaction is automatically recorded in the financial reports without the need for duplicate input.

3.7. Shipping

The shipping module on the Odoo website implemented in the fruit businesses will help the management of the fruit businesses in managing goods deliveries efficiently and integrated with various other processes in Odoo, such as inventory, sales, and accounting. This module is very useful for the fruit businesses that manages goods deliveries to customers, both on a large and small scale. The shipping module in Odoo helps assist business management at fruit businesses by automating the shipping process, estimating shipping costs, tracking delivery status, and increasing customer satisfaction.

Interviews with fruit businesses employees revealed a significant increase in efficiency after implementing the Odoo website-based ERP system for managing business processes, particularly in shipping. The owner of fruit businesses confirmed this during the interview, stating that this module helps minimize shipping errors, as every transaction and shipping route can be immediately identified if there are delays or obstacles in the field.

Based on the interview results, it can be concluded that the implementation of the shipping module at fruit businesses has provided significant benefits in business management. For example, the entire distribution flow is now integrated and digitally documented. Every order processed in the Sales module automatically generates a shipping document that can be monitored in real time. Furthermore, the system simplifies label printing, courier scheduling, and shipping cost recording, all of which are directly linked to the accounting module. This will increase the effectiveness of fruit businesses processes.

3.8. Customer Relationship Management

The Customer Relationship Management module in the Odoo website implemented in the fruit businesses will be very powerful in helping the management of the fruit businesses because it is able to manage interactions with customers. The Customer Relationship Management module in Odoo allows fruit businesses owners to track prospects and sales opportunities in an organized manner. fruit businesses owners can record all important information about prospects, such as contact details, lead sources, and sales status. Thus, in terms of sales, fruit businesses can focus on the most potential prospects and increase the chances of conversion into actual sales. The customer relationship management module implemented in the fruit businesses provides an integrated solution for managing prospects, customers, and interactions with customers, which is very important for managing the fruit businesses website-based business. Through automation, efficient lead tracking, and integration with various communication channels.

Interviews with the owner of fruit businesses revealed a significant improvement in the effectiveness of customer follow-up because all customer data is now centralized in one platform. Every interaction, from lead registration and follow-up to sales, can be monitored in real time. fruit businesses employees also added that this module helps them better identify potential customers based on their transaction history and purchasing preferences. This facilitates the creation of more relevant and personalized offers, ultimately increasing conversion rates and customer loyalty.

Based on this information, it can be said that the implementation of the Customer Relationship Management module is very helpful and has a positive impact on customer relationship management, sales effectiveness, and business growth potential with integrated data and well-documented processes. fruit businesses now has a strong foundation for marketing strategies and market development in the future.

3.9. Effectiveness Level of fruit businesses After Implementing Odoo Website-Based Enterprise Resource Planning

The implementation of the Odoo website-based Enterprise Resource Planning (ERP) system at fruit businesses has brought significant changes to business operations, including administration, inventory management, and decision-making. Prior to the implementation of Enterprise Resource Planning (ERP), all business processes, such as recording

purchases, sales, and inventory management, were performed manually using simple notebooks. This often led to problems such as delays in data updates, duplicate records, and difficulties in generating financial reports quickly.

In the context of this research, the data obtained shows that the implementation of ERP at fruit businesses not only simplifies the process of planning and controlling resources, but also helps business owners monitor raw material stock, organize distribution, and process transactions more efficiently. These field findings support the view that ERP is an efficient and effective technology to support business sustainability oriented towards increasing competitiveness. With the implementation of the Odoo website-based Enterprise Resource Planning (ERP) system at fruit businesses, all sales, purchasing, and inventory data are integrated in a single web-based system. Transaction recording that previously required a long time can now be done with just a few clicks, while stock and sales reports can be accessed in real time. This helps business owners know the condition of the business at any time without having to wait for manual recaps at the end of the day or the end of the month. This was conveyed by the owner of fruit businesses, during an interview, that the implementation of ERP has shortened stock management time by up to 50%. Previously, the owner needed almost a full day to recap inventory data, whereas after the system was running, all stock reports can be accessed in just a matter of minutes.

The implementation of the Purchasing, Inventory, Sales, Accounting, Shipping, and Customer Relationship Management modules on the Odoo website has significantly impacted the supply chain management at fruit businesses. With the Purchasing module, the raw material procurement process has become more structured, allowing business owners to place orders with suppliers more efficiently and well-documented. The Inventory module enables real-time stock monitoring, reducing the risk of stockouts or excess inventory, and ensuring smooth distribution of goods. Meanwhile, the Sales module helps in recording and managing customer orders automatically, thereby minimizing errors and speeding up the transaction process. From a financial perspective, the accounting module allows for more accurate cash flow recording and financial reports, ensuring transparency in every business transaction. The Shipping module plays a role in increasing shipping efficiency, optimizing distribution coordination, and providing customers with information regarding the status of their orders. Furthermore, with the CRM module, fruit businesses can now build better relationships with customers, track transaction history, handle complaints more quickly, and implement more effective marketing strategies. The integration of all these modules into the Odoo website-based ERP system has helped fruit businesses improve operational efficiency, reduce recording errors, and increase customer satisfaction, making it better prepared to face business competition in the digital era. After the Odoo ERP system was implemented, significant changes were immediately felt. This can be seen from the ease of stock management because all data is recorded digitally. Details of the supply chain management conditions at fruit businesses after the implementation of the Odoo website-based enterprise resource planning can be seen in the following table

Tabel 2 Operational Conditions of fruit businesses After Implementing Odoo Website-Based Enterprise Resource Planning

No	Aspect	Condition	Impact
1.	Information System Transparency	All sales, purchase and stock data is integrated in the Odoo dashboard which can be accessed by owners and employees	Information can be accessed in real-time by owners and employees, increasing transparency, reducing communication errors and speeding up decision-making
2.	Data Reliability	The ERP system records transactions automatically and synchronizes between modules	The data produced is more accurate and consistent, reports can be generated instantly so that data reliability is increased and manual input errors are reduced
3.	Data Security	The Odoo work system uses a login system and access rights restrictions per user, as well as weekly automatic backups	Data is stored securely with account protection, not easily lost or damaged so that information security is increased and the risk of data manipulation and loss is reduced
4.	Supply Chain Responsiveness	The system provides automatic notifications when stock reaches the minimum limit and raw material orders are made via the purchase module	Faster ordering, more efficient coordination with suppliers and customers, thus increasing responsiveness because the ordering and delivery process is faster and monitored

5.	Employee Productivity	Employees are more focused on core tasks, less time is spent on manual recording	Productivity increases, workload decreases, employees are more efficient
6.	Order Processing	Customer orders enter directly into the system, automatically connected to stock	Orders are processed faster, the risk of failed orders is reduced, customer satisfaction is increased.
7.	Decision-making	Real-time data-driven decisions from ERP systems	More precise decisions, more accurate business strategies, easier procurement and distribution planning
8.	Customer Service	Customers receive quick information regarding product availability and delivery	Customer satisfaction levels increase, services are more professional and reliable

Source: Observation Results, 2025

Based on the findings obtained in the field which refer to the results of interviews and observations conducted on the owners and employees of fruit businesses, it can be said that overall, the implementation of odoo website-based ERP provides a significant increase in effectiveness in various business lines of fruit businesses. This shows that ERP technology not only helps automation, but also strengthens overall supply chain management, supporting the growth of small businesses to be able to compete better in the market. The following is a comparison table of fruit businesses before and after the implementation of odoo website-based Enterprise Resource Planning

Tabel 3 Comparison of the Operational Performance of the **fruit businesses** Before and After Implementing the Odoo Website-Based Enterprise Resource Planning

Aspect	**Before Odoo Website ERP**	**After ERP Website Odoo**	**Impact**
Information System Transparency	The information system is manual using simple notebooks. Reports are only known to the owner	All sales, purchase and stock data is integrated in the Odoo dashboard which can be accessed by owners and employees	Transparency is increased by having access to operational data in real-time
Data Reliability	Sales, purchase and stock data are recorded separately without synchronization	The ERP system records transactions automatically and synchronizes between modules	Data reliability increases so input errors decrease and reports become consistent
Data Security	Documents are stored in physical form (paper archives) without digital backup	The Odoo work system uses a login system and access rights restrictions per user, as well as weekly automatic backups	Security is increased because data is better protected from loss and misuse
Supply Chain Responsiveness	Ordering of raw materials and delivery is done manually via telephone or text message	The system provides automatic notifications when stock reaches the minimum limit and raw material orders are made via the purchase module	Responsiveness increases as coordination with suppliers and customers becomes faster and more efficient
Employee Productivity	Double data input and administrative work piling up	Input data once, workload is reduced, employees focus on strategic activities	Productivity increases, workload decreases, employees are more efficient
Order Processing	Orders are often late due to lack of coordination between departments	Orders are processed quickly, integrated with inventory and distribution	Orders are processed faster, the risk of failed orders is reduced
Decision-making	Data is not always accurate and up to date, decisions are often late	Real-time data, faster and more accurate decisions	More precise decisions, more accurate business strategies,

			easier procurement and distribution planning
Customer Service	Risk of late delivery and out of stock	On-time delivery, increased customer satisfaction	Customer satisfaction levels increase due to more professional and reliable service

Source: Observation Result, 2025.

Table 3 shows that the implementation of the Odoo website-based ERP system brought significant changes to the operational aspects of the fruit businesses in Gowa Regency. Prior to implementation, the work system was manual, unintegrated, and reliant on individual record-keeping. This often resulted in data being out of sync and hampering decision-making. After the Odoo ERP implementation, all business activities were integrated into a single digital system. Sales, purchasing, and inventory data can be accessed directly through a centralized dashboard, increasing information transparency. The automated system also helps maintain data reliability and accuracy, as each transaction is immediately updated across all related modules. In terms of data security, the implementation of user accounts with specific access levels and an automatic backup feature further protect the company from information loss. In terms of supply chain management, the notification feature and purchasing integration improve responsiveness to changes in stock requirements and expedite the raw material ordering process.

Thus, it can be concluded that Odoo ERP makes a real contribution to increasing operational effectiveness, efficiency, accuracy, and transparency, as well as strengthening the foundation of business digitalization to support more responsive and data-driven decision-making.

4. Discussion

The research results show that the implementation of the Odoo website-based enterprise resource planning (ERP) system at fruit businesses has significantly improved the business's development pattern, making it more structured, adaptive, and data-driven. This can be seen from the fact that after the Odoo ERP implementation, all data related to sales, inventory, and finances are integrated into a single system that can be accessed in real time. This condition proves that digital transformation, as stated by Laudon [24].' Management Information Systems (MIS) is a key factor in increasing competitiveness and business growth in the digital economy. In addition to impacting business development, it also demonstrates a significant transformation in supply chain management. This can be seen from six key aspects measured: timeliness, data accountability, operational efficiency, employee productivity, decision quality, and customer satisfaction. After implementing Odoo ERP, these conditions have significantly improved. The transaction recording system is now running in an integrated manner and can be accessed in real time, minimizing the risk of data loss and increasing transparency. Inventory management is also more effective because the system automatically updates stock data every time an item arrives or leaves. This helps prevent excess stock or out-of-stock situations, which previously often led to losses. This is consistent with supply chain management theory, which emphasizes that the ultimate goal of system integration is to increase customer value. Chopra & Meindl [25].'

Theoretically, this result is in line with the opinion Heizer & Render [26].' which states that effective supply chain management emphasizes integration between processes to increase efficiency and add value for customers. Similarly, Laudon [24].' emphasized that the implementation of an ERP system is able to integrate various organizational functions in one database, thereby increasing information accuracy and operational efficiency. Meanwhile, Chopra & Sunil [27].' underlines that real-time information is a key element in faster and more accurate decision making in supply chain management.

In terms of increasing business effectiveness in the fruit businesses, it is also in line with what was conveyed by Aaker[19] In his book Strategic Market Management, Aaker states that business effectiveness can be measured by how well a company is able to meet market needs, respond to changes, and maintain and improve its competitive position. This indicates that effectiveness is not only seen from financial profits, but also from the company's ability to adapt to market conditions. When associated with the results of the implementation of the Odoo website-based enterprise resource planning at fruit businesses, Gowa Regency, it is clear that the implementation of this system has made a real contribution to increasing business effectiveness according to the indicators explained by Aaker. The implementation of the Odoo website-based enterprise resource planning at fruit businesses has succeeded in improving business effectiveness comprehensively, both financially and strategically, supporting long-term business sustainability.

5. Conclusion

Based on the research results, it can be concluded that the implementation of the Odoo website-based enterprise resource planning system at the fruit businesses has provided a significant increase in operational effectiveness. This can be seen from the eight main aspects measured, namely information transparency, data reliability, data security, supply chain responsiveness, employee productivity, order processing, decision quality, and customer satisfaction. In addition to operational benefits, the implementation of the Odoo website-based ERP is also more flexible and can be accessed from anywhere, allowing the fruit businesses owner and employees to monitor the business more dynamically. With automation features and integrated financial reports, fruit businesses now has better control over its cash flow and business profitability. Overall, the implementation of the Odoo ERP has helped this business in improving efficiency, data accuracy, and competitiveness in the fruit distribution industry, making it better prepared to thrive in the digital era.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper. All authors have contributed equally to the preparation of the manuscript and have no financial, personal, or organizational relationships that could inappropriately influence or bias the content of this work.

References

[1] Rahmatullah, Inanna, Sahade, Nurdiana, F. Azis, and Bahri, "Utilization of digital technology for management effectiveness micro small and medium enterprises," Int. J. Sci. Technol. Res., vol. 9, no. 4, pp. 1357–1362, 2020.

[2] F. Suastrini, "Halal Logistics Management," Nusant. Hasana J., vol. 2, no. 9, p. Page, 2023.

[3] A. Paul and S. C. Saha, "A Systematic Literature Review on Flexible Strategies and Performance Indicators for Supply Chain Resilience," Glob. J. Flex. Syst. Manag., vol. 26, no. Suppl 1, pp. 207–231, 2025, doi: 10.1007/s40171-024-00415-x.

[4] U. A. A. Anwar et al., "Supply chain integration as the implementation of strategic management in improving business performance," Discov. Sustain., vol. 6, no. 1, 2025, doi: 10.1007/s43621-025-00867-w.

[5] D. L. Olson, B. Johansson, and R. A. De Carvalho, "Open source ERP business model framework," Robot. Comput. Integr. Manuf., vol. 50, pp. 30–36, 2018, doi: https://doi.org/10.1016/j.rcim.2015.09.007.

[6] M. Rakib and M. Jufri, "Technological Innovation On The E-Commerce Platform," vol. 2, no. 3, pp. 83–90, 2025.

[7] A. G. M. M. O'Brian, J. A., Management Information System, 10th ed. New York: NY: McGraw-Hill Education, 2014.

[8] Martono, Dasar-Dasar Manajemen Rantai Pasok. Bumi Aksara, 2019.

[9] S. Y. Warella et al., Manajemen Rantai Pasok, vol. 7, no. 2. 2023.

[10] T. Pujadi, . Witarsyah, H. Setia Budi, W. Sardjono, B. H. Simamora, and X. Ruan, "Supply Chain Management: A Systematic Literature Review," pp. 1312–1315, 2023, doi: 10.5220/0010964300003260.

[11] P. Kotler and K. L. Keller, Marketing Management. Pearson, 2016. doi: 10.1515/9783486801125.

[12] M. Rakib, A. Tawe, H. Zainal, and S. Farwita, "The Relationship Analysis of Entrepreneurial Interests: Entrepreneurial Literacy, Self-Eficacy, and Entrepreneurial Characters Vocational Students," vol. 481, no. Icest 2019, pp. 25–30, 2020, doi: 10.2991/assehr.k.201027.005.

[13] S. A. Ningsi, M. Rakib, and A. Syam, "Business Development in Increasing Productivity with the Application of Just in Time in the Production System : Case Study on Fish Floss Business," vol. 20, no. 7, pp. 354–361, 2024.

[14] M. Rakib, "Pengaruh Model Komunikasi Wirausaha , Pembelajaran Wirausaha , Dan Sikap Kewirausahaan dan Kinerja Usaha Kecil," no. February 2016, 2020, doi: 10.17977/jip.v17i2.2630.

[15] M. Rakib, M. Azis, D. A Sanusi, and M. Marwan, "The influence of entrepreneurship training, individual commitment and business motivation toward the small businesses performance in city of parepare," pp. 135–141, 2020, doi: 10.32698/tech3247.

[16] A. Ociepa-Kubicka, "Advantages of using enterprise resource planning systems (ERP) in the management process," World Sci. News 89, vol. 89, no. November, pp. 237–243, 2017.

[17] D. A. Almajali, F. Omar, A. Alsokkar, A. S. Alsherideh, R. Masa'Deh, and Z. Dahalin, "Enterprise resource planning success in Jordan from the perspective of IT-Business strategic alignment," Cogent Soc. Sci., vol. 8, no. 1, 2022, doi: 10.1080/23311886.2022.2062095.

[18] K. R. Sungkono, R. Sarno, A. J. Ulhaq, M. Taufiqulsa'di, I. N. KurniaSari, and Z. Z. Dinanto, "Pembentukan dan Penerapan Enterprise Resource Planning (ERP) pada UMKM (Usaha Kecil Menengah) Toko Budi dan M-Bisy Mart," Sewagati, vol. 3, no. 3, 2019, doi: 10.12962/j26139960.v3i3.6026.

[19] A. David Aaker, Strategic Market Management, 11th ed. Hoboken, New Jersey, USA: John Wiley & Sons, Inc., 2017.

[20] S. P. R. & T. A. Judge, Organizational Behavior, 17th ed. Harlow, England: Pearson Education Limited, 2014.

[21] Sugiyono, Metode Penelitian Kualitatif. Bandung: Alfabeta, 2022.

[22] J. R. Wixson, "Function Analysis and Decomposition using Function Analysis Systems Technique (FAST)," Conference Paper, Idaho National Engineering and Environmental Laboratory, U.S. Department of Energy, 1999.

[23] L. Von Bertalanffy, General System Theory. New York: George Braziller, 1972.

[24] K. C. L. & J. P. Laudon, Management Information Systems: Managing the Digital Firm, 8th ed. Upper Saddle River, New Jersey, USA: Pearson Education, Inc., 2004.

[25] S. C. & P. Meindl, Supply Chain Management: Strategy, Planning, and Operation, 6th ed. Harlow, England: Pearson Education Limited, 2016.

[26] J. H. & B. Render, Operations Management: Sustainability and Supply Chain Management, 11th ed. London / Upper Saddle River, New Jersey: Pearson Education Limited, 2014.

[27] S. Chopra, Supply Chain Management: Strategy, Planning, and Operation, 7th ed. Harlow, England: Pearson Education, 2019.