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Research Article

Digital Transformation Framework in Consumer Goods Wholesale Industry SMEs: Case Study in Wholesale SMEs of Babelan Districk

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ABSTRAK

Wholesale SMEs have experienced rapid growth in the sales sector, specifically in the Babelan sub-district the consumer goods wholesale industry still uses a manual control system in running its business. The sales process with the Conventional System is carried out starting from stock control, sales activity control, sales process, cashier and revenue generation is still done manually. The manual control process causes a slow counting process and a long process of re-ordering goods and losing assets. The solution needed at this time is the creation of a framework for Digital Transformation Steps in the sales process to facilitate the control of wholesale consumer goods business processes. The digital transformation framework is expected to modernize the sales process, starting from the cashier system, revenue control system, and sales activity control process, and make it easier for wholesalers to order goods. This applied research is expected to be able to provide suggestions for wholesale consumer goods businesses to run their business in a more efficient and practical direction. It can be a recommendation to be able to carry out a digitally transformed sales process.

INTRODUCTION

Small and Medium Enterprises (SMEs) are a form of business that has special characteristics, such as a limited number of employees, a relatively small scale of operation, and not large capital. SMEs are often the backbone of a country's economy due to their contribution to creating jobs, driving regional economic growth, and promoting innovation at the local level (Hidayat et al., 2022). In general, SMEs are considered the backbone of a country's economy because they contribute significantly to growth, job economic creation and community development. SMEs are also often a source of innovation at the local level and can help in equalizing economic development in various regions.

Small and Medium Industry (SMEs) is one type of business that has a significant growth valuation in the trade and service process. The small and medium industry is one of the government's priorities in the development of the community's economic progress in accordance with

government regulations on the national development master plan. The wholesale industry is one of the alternative businesses that absorbs a lot of labor and is able to meet the needs of the community .

As is known, IKM itself is the majority sector of the industrial population in Indonesia. So far, its activities have consistently brought broad multiplier effects in an effort to encourage equitable distribution of community welfare. Until now, the number of agency industries has absorbed up to 10.5 million workers or contributed 65% of the industrial sector as a whole (https://dipb.kemenkeu.go.id/).

Currently in Bekasi district, grocery wholesalers still implement conventional sales, namely serving buyers who come to the store, buyers choose the items they want and after finishing queuing at the cashier, as well as services that are still conventional, which for inventory stock is still manual.

The level of stock accuracy is still very minimal, creating problems in the sales process, items that have been sold



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should be recorded in the stock inventory, as data for sales and reduced stock. The main problem in this research is that almost 100% control is done manually through physical checks and manual calculations so it takes a long time, if all items are done it can take up to a day. Apart from that, this thesis is a further exploration of previous research recommendations regarding the implementation of digital transformation which is expected to encourage SMEs in Indonesia, especially the consumer goods wholesale industry. (Hasbullah & Bareduan, 2021).

In addition, this article is a further exploration of previous research recommendations on the application of digital transformation which is expected to encourage SMEs in Indonesia, especially the wholesale consumers goods industry (Hasbullah et al., 2021)

Definition of SMEs Digital Transformation is the process by which small and medium-sized companies integrate digital technology into all aspects of their business, from internal operations to interactions with customers and markets, to increase efficiency, innovation and competitiveness. SME digital transformation is a fundamental change in how SMEs use digital technology to transform business models, operational processes and customer experiences to achieve sustainable growth and improve overall business performance. SME digital transformation is a strategic evolution that involves the application of information and communication technology modernize and improve business processes, sustainability, adaptation to market changes, and speed in making decisions based on data (Šimberová et al., 2022). SMEs digital transformation is a strategic process in which small and medium-sized companies leverage digital technologies to change the way they operate, innovate and interact with their business ecosystem. This involves integrating technology into the company's entire value chain to achieve the efficiency, innovation, adaptability and competitiveness required in the Industry 4.0 era. With the right digital transformation, SMEs can improve their business performance, expand markets and create significant added value.

The urgent need for digital transformation for Small and Medium Enterprises (SMEs) in today's industry needs to transform digitally to be able to adapt quickly to changes in market trends, consumer demands and increasingly fierce competition (Thomas M. Siebel, RosettaBooks, 2019) With digital transformation, SMEs can increase their operational efficiency, reduce production costs, and increase productivity with digitally integrated systems.

METHODS

Traditional small industries generally have characteristics, among others, the technological processes used are simple, the machines used and other capital equipment are relatively simple, the location is in rural areas, the access to reach markets outside the immediate environment is limited. (Kadek Dena Krisnantara & Mertyani Sari Dewi, 2023). Small and Medium Industries have an important role in advancing the community's economy, SMEs are also an alternative for people who want to switch to entrepreneurship as their main source of income, macro industries have many opportunities for progress because they are an alternative for most groups for business activities.

Small and medium enterprises play an important role in the Indonesian economy, because this sector can handle national economic growth, absorb labor and distribute production results, apart from that, SMEs are proven to be able to survive and continue to develop in the midst of a crisis, because in general this sector still utilizes natural resources. local, be it human resources, capital, raw materials, even equipment, meaning that most of the needs of small and medium businesses do not rely on imports (Arisandi, 2018).

There are several definitions that describe the meaning of digitalization. One of them is digitalization as digital communication and the impact of digital media on contemporary social life. Digitalization cannot occur without digitization. Digitalization is the use of digital technology and digitized data to influence the way work is done, change the way company-customer interactions, and create new revenue streams digitally (Hasan et al., 2022) Many SMEs entrepreneurs currently run their businesses just to meet their daily needs.

To improve the productivity and performance of SMEs requires the role of digital technology. Digital technology plays an important role in the performance of Small and Medium Industries in this time of large-scale social restrictions. Most business and administrative processes must be done digitally. As a result, digitalization in the SME business is not only carried out in business processes from companies to customers but also in processes from companies to employees. (Widnyani et al., 2021). This makes IKM Infrastructure and customers ready for digital transformation.

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develop and empower SMEs by improving their capabilities and potential.

The use of technology is a new phenomenon in accelerating or facilitating access and operations of a job. (Dela Putriana et al., 2022). Digitalization has an important role to change conventional business processes to digital transformation, the application of digitalization can help operational processes become more concise, accurate and efficient.

Digital transformation in SMEs refers to the use of information and communication technology to improve business efficiency, productivity, and competitiveness. The phenomenon of digital transformation in Small and Medium Industries can be observed from several aspects, including: resource challenges during digital transformation because transformation, like any change, requires resources (Putra et al., 2023). Digital transformation refers to the wider adoption of digital technology and there is a cultural change in it.

The goal of digital transformation is to improve the efficiency and effectiveness of the work environment. Digital technology is now present as one of the solutions to encourage Indonesia's economic recovery (Hasbullah et al., 2021). This is inseparable from how digital technology is one of the key elements that can strive for sustainable growth.

The steps of digital transformation are extracted from several important references. These are discussed by academics, industry, and limited practitioners involved in implementing the concept of digital transformation in the industrial era 4.0 (Hasbullah & Bareduan, 2023).

Data from the Ministry of Cooperatives and SMEs shows that currently there are 64 million SMEs, and only around 8 million or around 13% are connected to the digital world (Fatimah, 2021). The digitalization process for Small and Medium Industries has an important role in the sales process, the process of ordering goods, the process of ordering goods to distributors and facilitating the process of calculating the amount of income in each SME business unit. Digitalization has an important role in increasing sales operational functions and income for business actors. Compared to conventional systems, digitalization has many advantages for more systematic and transparent operational activities.

Digital transformation and business-generated innovation models have fundamentally changed consumer expectations and behaviours, pressured traditional companies, and disrupted many markets. Ongoing changes in customer needs and behaviour are forcing companies and public administrations to lead digital transformation.

All sectors require change and digital transformation is a process that many organizations or companies do. The following figure 1 is a digital transformation flow model:

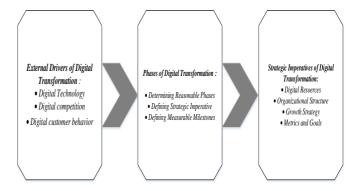


Figure 1. Digital Transformation Flow (Widnyani et al., 2021)

Digital transformation for SMEs (Small and Medium Enterprises) is very important in facing the Industry 4.0 era. Here are several reasons why digital transformation is really needed in the context of SMEs and Industry 4.0, namely digital transformation allows SMEs to remain competitive with large companies. By adopting the latest technologies such as IoT (Internet of Things), AI (Artificial Intelligence), and data analysis, SMEs can increase operational efficiency and optimize their business processes. Industry 4.0 brings rapid changes in the way business is run (Michael Wade, James Macaulay, Andy Noronha, and Dan Herman 2019). Digital transformation allows SMEs to more easily adapt to changing technology and changing market demands. Therefore, digital transformation is not an option, but rather a necessity for SMEs who want to remain relevant and competitive in the Industry 4.0 era.

Make sure the plan considers the holistic integration of Industry 4.0 technology in various aspects of the SME business. Implement Industry 4.0 technology gradually according to the plan that has been prepared. Provide training to employees to understand and use the implemented Industry 4.0 technology. Regularly monitor the performance of digital transformation implementation to ensure that the desired goals and benefits are achieved (Tony Saldanha, 2019). By following these steps, SMEs can effectively integrate Industry 4.0 technologies in their digital transformation, increasing efficiency, innovation and competitiveness in an ever-changing business environment.

Digital transformation has become very important and relevant in the Industry 4.0 era due to dramatic changes in the way businesses are conducted, pushing organizations to adopt new technologies and utilize them effectively. Here are some points why digital transformation is very important and relevant in the Industry 4.0 era, digital

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transformation is very important because of changes in business paradigms, innovation and competitiveness, efficiency and productivity, better customer experience, adaptation to market changes, security and compliance (The Impact of Digital Revolution on the Economy" by Irving Wladawsky (Berger, 2014).. Thus, digital transformation is not just an option, but an urgent need for organizations that want to remain relevant and competitive in the Industry 4.0 era. Organizations that are able to adopt and utilize Effective digital technology will have greater opportunities to survive and develop in an increasingly competitive and dynamic business environment.

Many experts claim that increasing the productivity and performance of SMEs requires the role of digital technology. Digital technology plays an important role in the performance of SMEs during this time of large-scale social restrictions. Most business and administrative processes must be done digitally. As a result, digitalization in SME businesses is not only carried out in business processes from company to customer but also in processes from company to employee (Bisnis & Bisnis, 2021). Digital transformation also allows SMEs to connect with global supply chains, expand product distribution reach, and increase access to new resources and business opportunities. Thus, digital transformation is the key to spurring the growth and success of SMEs in this digital era. Digitizing business service processes is the answer to mobility constraints or interaction constraints between the company's human resources in serving customers. Such previous research has shown that the role of e-commerce increases company resilience during the pandemic (Sijabat & Hidayati, 2024) . The role of e-commerce also increases the resilience of companies based on digital marketing and facilitates communication with customers during the pandemic. However, on the other hand, the transformation or change of service forms from conventional forms of face-to-face and direct interaction to digitalization does not automatically guarantee meeting customer needs.

Excellent organizational culture and dedicated leadership are essential for risk management (Nurfitriana & Lisdiono, 2024). Risk culture is part of the overall organizational culture regarding values and actions related to risk in the workplace. Leaders play a crucial role in establishing a risk-aware culture within the organization. In the public sector, political leaders change frequently, making it challenging to stay focused on risk management. This research will focus on how leaders implement ERM during this transition period while also considering the development of a risk culture.

The use of I4.0 technology is the application of digital technology to the entire production value chain, which includes production planning, manufacturing technology, service, supply chain management using Internet of Things (IoT) applications. IoT follows the rule of three "a's", namely: aware (feeling something), autonomous (moving

data automatically to devices or internet services), actionable (integration into analysis or control) (Justiadi et al., 2023)

RESULTS AND DISCUSSION

This conventional agency business process has weaknesses where the owner cannot directly control how much revenue from sales, there is no control in the number of accurate purchases of goods, the process of entering and exiting goods that have no inventory, thus making the process of ordering goods to distributors hampered, overstock of goods, understock of goods and a slow process of reordering goods. This is due to the absence of an efficient and accurate control system.

The weakness of the agency's conventional system also results in the loss of unknown goods, the process of calculating goods still occurs errors because it relies on a manual counting system, causing losses to agency owners, then this is only known after the stock calculation when ordering goods to distributors.

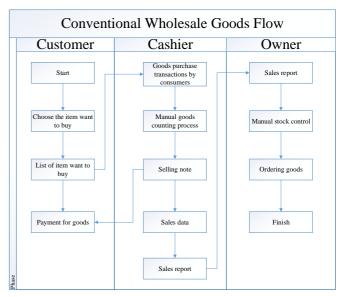


Figure 2. Consumer Goods Wholesale Operations
Flowchart

The following is an explanation of Figure 2 regarding the operational flow chart of wholesale consumer goods:

a. Buyer

The buyer chooses the available goods then if it is directly make a sales transaction and hand over cash to the cashier as the final part of the process of purchasing goods.

b. Cashier

Cashiers process transactions with buyers, in general, every sales transaction the buyer gets a receipt / receipt for the purchase of goods which is counted manually by the cashier. Cashiers also recapsales at the end of working hours based on the

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money that has been received.

c. Owner

The owner receives the recap and cash sales report that has been made by the cashier. Then the owner archives the report. The owner only controls the stock when the goods in the warehouse have run out and after that makes an order to the distributor where the process of delivering goods to the store takes 1 - 2 days. Based on the flow of goods in the wholesale industry, there are weaknesses that can cause potential losses, this is based on the absence of comprehensive control in the process of selling goods.

The manual control process in the sales process has several aspects that are detrimental to the owner in terms of revenue and consumers in terms of loyalty in purchasing goods. The consequences of the manual control process even lead to the loss of assets because there is no transparency in the process of agency sales activities. The types of agency problems can be explained in table 4.3 based on the observation process carried out

In the convitional wholesale industry for the period December 2023 :

Table 1. Types of Conventional Wholesale Problems

Nu	Type of problem	Problem identified	Problem identification analysis
1.	Queue at the Cashier	Manual item counting process	There is no cashier system yet. The process of packing goods is long. Cashier counts goods & packs goods.
2.	Cashier	Inaccurate calculation of goods and minimal control by the owner	 Manual item summarization process. Sales report data is not accurate. Frequent loss of items There is a loss of sales money
3.	Stock items	Stock items have no accurate data collection	 Frequent over stock and lost stock Goods run out only after manual data collection Frequent delays in replenishment of goods due to late orders
4.	Item placeme ntlayout	The warehouse is not yet well organized	 There is no special placement of goods Goods damaged dueto unorganized placement Goods lost due to noupto-date stock control

5.	Owner	•	1.	Not having accurate
		the time of after		data on stock items
		sales	2.	Not knowing how many
				items are out
			3.	Only place an order if the
				item is out of stock
			4.	Unable to know real
				income based on sales
				results
6.	Conventiona	Still relying on	1.	Has not kept up with the
	1 service	low cost		latest needs regarding
	system	systems for		fast services based on
		sales operations		digital transformation.
			2.	It has not yet thought
				about changing the
				system to digital
				transformation becauseit
				still uses a trust approach
				to cashiers
				and employees.

Based on Table 1 above, it can be explained that the conventional system of agency business can cause losses in terms of sales and revenue, all caused by the manual system that is still used by the agency. Business processes that sell fast moving goods have the potential to experience losses because there is no control that can be

directly monitored or recorded by the store owner. By relying on trust in cashiers and employees, of course, this is very ineffective considering the form of goods sold has reached millions. In addition, potential losses will be experienced starting from an inaccurate sales system which results in not knowing how many items are sold and how much revenue per day.

Conventional sales systems in the agency industry have aspects that have the potential to cause losses to the business, the biggest thing that is the main cause is the lack of control of sales process activities. Based on the research that has been done, below is table 2, a sample case of Transaction Period January 2024:

Goods shortage/understock data (Goods are known to run out after there is a request from consumers) January 2024 period.

Table 2. Example Case Data of Goods Shortage / Understock Period January 2024

No	Item Name	Stock	Known Time (when needed)	Description
1	Gudang Garam	-15 Bales	Н	Goods are known to run out when there is demand
2	Unilever Product	-30 Dus	Н	Goods are known to run out when there is demand
3	Wings Product	-50 Dus	Н	Goods are known to run out when there is demand

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4	Indofood Product	-50 Dus	Н	Goods are known to run out when there is demand
5	Water Procut	-40 Dus	Н	Goods are known to run out when there is demand

From the data in table 1 above, there are five items that are declared shortage / run out so that they have the potential to disappoint customers. The owner of the agency can only find out the remaining stock of goods based on the completion of the sales process or when the consumer requests the item and finds out that the item has run out, then a new order for goods is made after the item is known to have run out. Stock items will also only be available after ordering with a time span of 1 to 2 days. This is so complex and does lead to things that are inefficient and detrimental and disappointing to consumers. Based on this, research was conducted to provide proposals for improving the sales process that is affordable and based on digital transformations in the consumer product agency industry in the hope of reducing thing that are inefficient and potentially problematic.

Over Stock Goods Data (Goods known to be still a lot when stock-taking) January 2024 Period.

Conventional sales systems also result in goods becoming *over stock* due to the lack of control *over the re-order stock* process in sales activities, the characteristics of *over stock* items are items that have a *slow moving* nature. Items that have a slow turnover are not controlled precisely and accurately, causing over stock. Based on the research that has been done, below table 3 is an example of a January 2024 Period Transaction case:

Table 3. Example of Overstock Goods Data Case January 2024 Period

No	Item Name	Stock	Known time (when stock taking)	Description
1	Paseo wipes	15 Dus	H-14	Item are known to be over stocked when stock-taking
2	Ciki Product	25 Dus	H-5	Item are known to be over stocked when stock-taking
3	Plastic Packaging	5 Bales	H-7	Item are known to be over stocked when stock-taking
4	Salt	30 Bales	H-7	Item are known to be over stocked when stock-taking
5	Medicine	20 Boxes	H-7	Item are known to be over stocked when stock-taking

 $\label{eq:Description: H = When checking the stock of goods / at the time of purchase / when the goods will run out \\$

From the data in table 3 above, there are five items that are declared *over stock* in the agency sales process with a conventional system, to be able to find out the goods that are still in the storage warehouse is by *stock-taking*, if it is felt that there is still enough stock, then there is no order for goods. The flow of the agency sales process will continue until the stock is empty. Then after the goods are empty, the owner lists what items must be ordered to make the order process to the distributor. The flow of ordering methods like this is always applied to conventional agencies where the entire process of ordering goods waits until the goods run out. Stock items will be detected if there is a shortage of goods. The following is Figure 2 regarding the flow to find out the stock of a conventional agency warehouse:

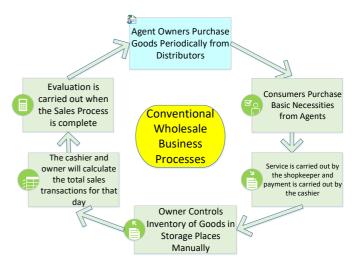


Figure 3. Conventional Agency Process

Based on the flow of the stock system in Figure 3 above, the entire sales process still relies on manual control of warehouse inventory, the store will continue to sell goods until they run out, then only when there is an order from the customer but the goods ordered have run out. This is the cause of lost stock for too long, then there is also the potential for loss without the owner and employees knowing about the product, this is due to the lack of overall control of agency operations. These weaknesses trigger a decrease in income and losses for the owner. By improving the flow of digital-based stock systems and direct control systems, it is hoped that these weaknesses can be reduced to increase efficiency and profits for consumer product agents.

Based on the analysis carried out on manual control activities in the agency industry, there are six main problems in the sales activity process that cause problems and losses, based on Figure 4, several problems that occur in the manual control process can be explained:

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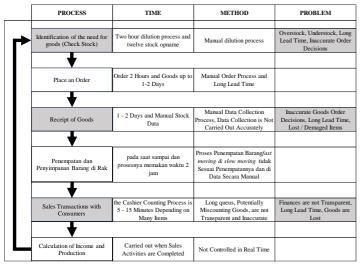


Figure 4. Problem Cause Analysis

From the data in Figure 4 above, the analysis of the causes of the above problems which are the subject matter of the problems that occur in the conventional process, there are three *items* that are *highlighted* with *gray* coloring which will be discussed at the core of this research. Based on the results of observations of the conventional agency industry, these three things are the main points that cause losses due to lack of overall control. The entire supervision process carried out on sales activities is only done manually without any system assistance that facilitates the control process.

Data from research observations show potential losses caused by the conventional system of agent activities. The manual control system is the main cause of losses.

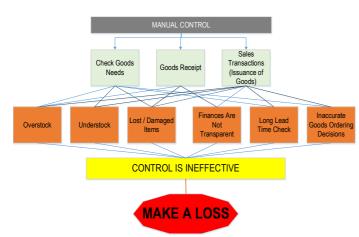


Figure 5. Conventional Wholesale System Framework

It can be seen from figure 5 that the flow of the wholesale system for consumer goods still focuses on manual control, the store only focuses on selling goods for consumer needs at low prices. The average goods sold by the wholesale are fast moving goods, the advantage of selling fas moving goods is that the faster the goods run out, the more profit, even though the profit abtained from each item is manual,

but if the sales multiples are many and fast, it will be more profitable for the wholesale. However, this is inversely proportional and tends to be conventional.

The problem that occurs in the agency industry today is that it still uses conventional systems in the service process, the process of ordering goods, the manual control process and the stock system that is not well organized. In accordance with the results of the researcher's observation at the agency there are many things that have an impact on the loss of the shop owner, this is caused by sales activities that are not well structured.

Figure 6 is the result of discussion and confirmation of FGD (Foccus Group Discusion) consisting of two Academics in the field of Industry 4.0 and Digital Transformation and two Warehouse Practitioners and one Industrial Supervisor in Cikarang. The analysis of the cause of the disruption of stock flow is a result of not maximizing control by the owner of the activity, all relying only on the turnover of goods that have run out. The cashier and employee functions cannot control the stock because they only focus on each task assigned. The consumer goods agency industry needs to make improvements based on references to various cases in journal articles, news articles and the web. Case analysis is carried out based on literature discussion by classifying research literature.

Digital transformation occurs due to changes driven by developments in technology in organizations and the environment. The changes that occur are related to business process adjustments, including changes between companies and employees and companies and customers. Then digital transformation and business innovation change customer expectations and behavior, suppressing traditional companies and market disruption. Changes in customer needs and behavior also force companies and general administration to excel in digital transformation, so that many business sectors need change and digital transformation is a process carried out by organizations or companies (Widnyani et al., 2021).

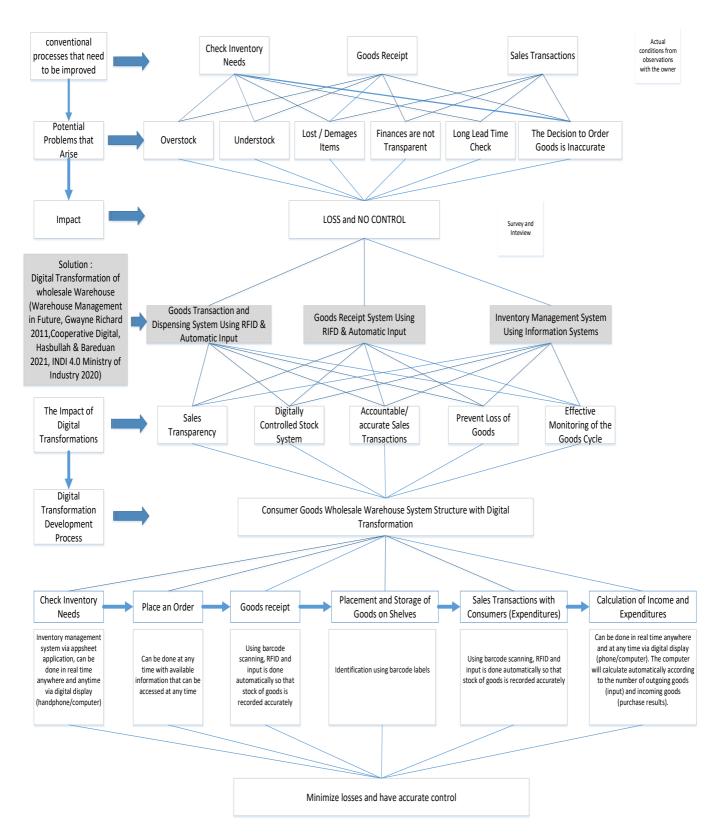


Figure 6. Wholesale Warehouse Digital Transformations Analysis Framework

Some experts reveal that SMEs need the role of digital technology to improve performance and productivity. Technology has presented a very important role, namely digital technology in the agency industry. Data from the Ministry of Cooperatives and MSMEs, until now the number of MSME players, only about 13%, has been

connected to the digital world or uses digital means in its business activities. (Widnyani et al., 2021). Especially in Babelan District, there are already many grocery wholesalers that contribute to the basic needs of the community at a fairly cheap and affordable price. In 2017, the idea emerged to create a shop that has a cheap sales

system, with the hope of being able to meet the needs of the community for purchasing cheap household goods.

Digital transformation consists of the combined effects of several digital innovations and technologies that bring new structures, practices, values, arrangements and beliefs that change, replace or complement existing rules in organizations, ecosystems and industries. Digital transformation can be defined as the modification (or adaptation) of business models, resulting from the dynamic pace of technological progress and innovation that triggers changes in the behavior of consumers, employees and company owners. (Tulungen et al., 2022). Digital transformation has become a major requirement in the process of developing a business towards a more efficient direction, both in terms of service processes, control processes and work processes of a company, digital transformation can facilitate and streamline every type of work that requires renewal with the aim of simplifying the process of implementing a work system.

The proposed improvement of the service process of the consumer goods agency industry leads to the sales subsystem sector and an accurate, accountable and transparent control system. Improvements are made starting from the service system where the system is changed to digital transformation with the aim of speeding up the process of counting goods, the number of goods sold is in accordance with sales data and the goods sold are reduced according to the amount that has been sold, from the cashier system can automate the amount of remaining stock in the warehouse which can inform the owner for data to the next process. The sales system is also able to inform in detail the revenue calculation system that has been carried out by the cashier.

CONCLUSIONS

- 1. Based on the results of research on the conventional system consumer goods wholesale industry, 11 items of digital transformation process steps are recommended by building an *affordable* digitization *frame work* through *open source technology*. This process is expected to be able to improve the shortcomings of the sales process and can improve the control of sales activities with a digital transformation step *framework* to improve the controlled salesprocess and can ensure the sales process can run efficiently.
- 2. Improving the form of movement control and stock levels in the consumer goods agency industry is done with the proposed digital transformation process, this can be a consideration to improve the sales process that is more controlled and can ensure the sales process runs well.

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