

Application of the Digital Company Concept in Retail Companies during the Covid-19 Pandemic

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ABSTRACT

During the pandemic, retail companies need to apply the concept of a digital company due to the many obstacles that prevent companies from running their business processes directly as usual. Therefore, companies need to design digital systems that can help business processes to be carried out digitally but still can get the same benefits even more than the old manual way by applying the concept of digital companies, digital marketing and ERP.

Keywords: Digital Enterprise, Information System, Digital Marketing, System Design

INTRODUCTION

The rapid progress of information technology today has affected the world both in lifestyle and in the world of work. Data processing automation technology, and the speed and accuracy of delivering information in decision making are indispensable for a company to achieve business goals. What needs to be developed at this time is an integrated information system that can make it easier for companies to manage business functions and business processes. Large companies such as retail companies have more than one division with interrelated activities. The speed of data communication between departments is very necessary in supporting business activities that will be easier to do through an integrated information system.

During the pandemic, large companies are currently facing big obstacles where the company's business operations are hampered due to having to implement health protocols that make work impossible at work as usual because they have to avoid direct contact so as not to be exposed to disease from the Covid-19 outbreak. This causes some processes that were previously done manually in the company to be transferred to digitalized processes, this is certainly not easy because to make the transition from manual processes to computerized processes requires good planning and analysis of business processes that will be computerized. This is necessary because to change the system from manual to digital requires resources that are in accordance with their needs starting from the infrastructure to the human resources who will operate it because of course one cannot directly use the new system without learning it first.

So far, many companies have started implementing computerized systems to simplify their business processes and just need to develop the system so that it can be more useful and cover broader business processes in the company in order to be able to support companies in the current pandemic conditions. The system that was previously only focused automatically on certain parts must be developed so that a stand-alone system in the company can be integrated in order to simplify the company's business processes. With an integrated system, each part of the company can carry out their respective duties and can still be connected with other parts to complete their tasks even without direct contact as before, even the business processes carried out are more efficient than before.

LITERATURE REVIEW

Information Systems

An information system is a system within an organization that brings together the daily transaction processing needs, supports operations, is managerial and strategic activities of an organization and provides certain outside parties with the necessary reports. An information system is a collection of hardware, software, data, human resources, and procedural components intended to provide the right data and information to the right people, at the right time [1].

Information systems in an organization can be said as a system that provides information to all levels within the organization whenever needed. This system stores, retrieves, converts, processes and communicates information received by using information systems or other system equipment [2].

Online Marketing

Online marketing or online marketing is any activity or business of marketing products or services through or using the internet. In using online marketing, a company can build its reputation by being active on social media. Many potential consumers use the internet to find information. By utilizing the medium of the internet, a company can introduce their name to the public and encourage potential customers to seek more information about the company[3].

There are various strategies that can be done in online marketing. But what needs to be considered is that the ways to market your business in online marketing are different from advertising. Online marketing strategies focus more on promoting your business name subtly so it doesn't look like you're advertising a business.

Enterprise Resource Planning (ERP)

Enterprise Resource Planning (ERP) is an integrated business solution. Integration here means that this ERP system can be regarded as a software that functions as a medium for managing an organization's business processes, where data can be distributed in real time to all departments within the organization. ERP system is an integrated computer application that is used in the management of internal and external resources of a company[4].

ERP is an integrated information system created in a centralized database that helps the effective use of company resources and facilitates the flow of information between all business functions of the company and also with external stakeholders [5]. ERP software is designed to model and automate the company's business processes from finance to the shop floor, with the aim of integrating information within the company and reducing the complexity and network between expensive computer systems [6].

Supply Chain Concept

Supply chain is a system through which an organization distributes its production goods and services to its customers. This chain is also a network or network of various interconnected organizations that have the same goal, namely as best as possible to organize the procurement or distribution of these goods [7].

Supply Chain Management with Internet

By using the internet, without having to develop their own computer network system, a supermarket, for example, can find out how many items are in stock at each supplier or in each store or warehouse. Likewise, to satisfy consumers, goods can be searched through the internet (search engines) to various suppliers (suppliers) [7].

The order-to-delivery cycle

There is a fairly heated argument between which is the most important, whether the length of the lead time or the consistency and reliability of the lead time. Although it can be agreed that consistency and reliability are often more important than the length of the lead time, the length of the lead time is still important, especially when the customer attaches great importance to this lead time and competing companies are able to provide shorter lead times [7].

Goods Flow Management

a. Lead Time Concept

In terms of customers, there is only one lead time, which is the span of time it takes from when ordering goods (orders) until the goods are received. Called 'the order-to-delivery cycle'.

b. Inventory centralization

For successful supply chain performance, centralization is required. Inventory centralization is meant here not in a physical sense but in the sense of planning and regulation. Physically, the flow of goods can be carried out in such a way that the most optimal logistics costs can be obtained, it does not have to always follow the sequence of formal distribution channels [7].

Organizational Management

a. Organizational form

The form or pattern of organization that needs to be developed is not a functional organization like the old pattern in general, but a horizontal organization.

The key to horizontal organization is that it is based on processes and not functions.

In other words, process management is more important than function management and this needs to be done in an integrated manner [8].

b. Open communication

Communication between links must be carried out routinely, transparently, openly, spontaneously and must be felt and is a daily necessity.

Communication between links must be developed so that it becomes like communication between parts within the company itself [8].

Supplier Relationship Management

a. Rationalization

Rationalization is limiting the number of suppliers to the most efficient and manageable level.

This rationalization for essential goods and for key suppliers needs to be further developed towards business partnerships [8].

b. Integrated information system

One of the keys to the success of the supply chain is the procurement of an integrated and transparent information system.

This system needs to be supported by the use of the latest information technology, so that decisions can be made quickly, accurately and not only linearly but can be multi-faceted [9].

METHOD

The research method serves to facilitate the implementation of work to be more effective in making decisions or conclusions. Methodologies can be found and create new actions, so as to make the execution of work easier, faster, and as expected. The methodology used is a qualitative descriptive research methodology.

a. Data Collection Method

The methods used in data collection and collection include literature study.

b. Research Stage

The system to be worked on begins with an analysis of the retail company's ongoing business process, then an assessment of the business process is carried out to be further implemented in the form of a system design.

RESULTS AND DISCUSSION

Old System Overview

All activities are carried out manually, the only communication is direct contact or through social media on smartphones and email so that communication is often mixed with personal communication. Data processing applications in each division are simple office applications such as MS. Office or separate data and financial management applications in each division. Direct contact with suppliers and customers.

Information Technology Development Proposal

Based on the concept of Digital Companies and Supply Chain theory that I have learned, Information Technology can help to build a system where each division in the company can communicate and exchange information more efficiently, marketing can be done online, and an effective and efficient supply chain. With the support of good Information Technology, problems that have been identified can be handled properly and increase the effectiveness and efficiency of offline retail companies' business processes.

The following is a proposal for the development of Information Technology made:

a. Front Office

Build applications that can connect the company with its suppliers so that relationships with suppliers can be well established and the procurement process becomes smoother and more secure because it is transparent.

Build an E-commerce application in order to promote products and promos to the public via the internet.

b. Back Office

Building Information System Applications that can handle:

- Inter-Divisional Communication
- Meeting Forums (online)
- Financial Management
- Administrative Management
- Membership Management (HR)
- Event information/marketing activities

Business Processes of Retail Companies with the Role of Information Technology

The Business Process of the Johnny's Mart Retail Company with the role of Information Technology is as follows:

a. The first process is the determination of the Work Program carried out by the Management who determines the Work Program.

- b. The work program design made is entered into the Company's Internal Information System so that it can be seen by all divisions
- c. After the Work Program Design is determined, this Work Program is discussed in advance with all existing Divisions in a meeting that can be done online. If there is disagreement in the meeting, the Work Program will be revised.
- d. After the Work Program is agreed upon, the Work Program is approved and given to each division through the Company's Internal Information System.
- e. After receiving the Marketing Division's Work Program, make a strategy for marketing and sales events/activities that will be carried out by the company.
- f. After the Event Strategy/Marketing and Sales Activities are made, the Marketing Division makes a prototype of the Marketing and Sales Event Strategy/Activity proposal which is then given to the Finance Division/Treasurer.
- g. Making Strategies and Proposals is carried out on the company's Internal Information System
- h. After receiving a prototype proposal from the Marketing Division through the company's Internal Information System, the Finance Division/Treasurer makes a budget for marketing and sales events/activities as well as merchandise stock using the financial management features of the company's Internal Information System. Budgeting becomes easier because the company's Internal Information System is connected to the Supply application which contains supplier data along with prices and stock.
- i. After making a budget, the Finance Division provides the budget to the Marketing Division through the company's Internal Information System to complete the event/activity proposal.
- j. After completing the proposal, the Marketing Division provides a proposal to Management for consideration, if it agrees then the proposal will be approved, otherwise the proposal will be rejected and must be revised. This approval is carried out on the company's internal application.
- k. After the proposal is approved, the proposal is given to the Logistics Division through the Company's Internal Information System to supply the needs of the event, one of which is stock of needs and merchandise
- l. After checking Supply needs, the Logistics Division places an order for Supply to the Supplier through the Supply Application which is connected to the company's Internal Information System.
- m. After all preparations have been made, the Marketing Division organizes promotional events/activities at online stores managed by the company to sell and promote its products, if there is a shortage of supply, the Marketing Division contacts the Logistics Division through the Application, then the Logistics section supplies again through the supply application which is directly connected with suppliers.
- n. Then the payment data from the supply application is given to the Finance Division/Treasurer through the Company's Internal Information System to prepare the Financial Report.

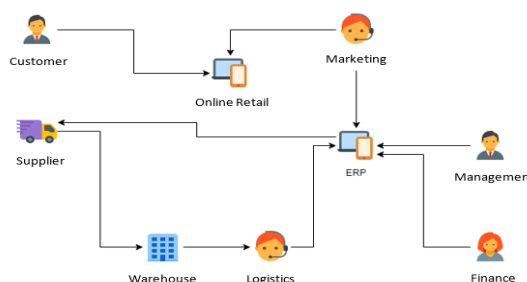


Figure 1. New System Overview

List of all technologies used

a. Technology for Business

In this section are the technologies that will be applied to run the company's retail business:

- Online Store Web
- Mobile application online shop

b. Technology for Data Processing

In this section, what applications will be made for your needs?

Data processing, namely:

- Internal Business Applications that handle internal needs such as document processing, sales statistics, income data, market trend data and others with data mining technology, business intelligence, and Decision support systems
- A financial application that manages data on income, expenses, cash flows and financial reporting in accordance with accounting principles
- Stock warehouse management application

c. Communication Technology

In this section is the technology that will be used for communication needs.

The technologies that will be applied are:

- Internal Communication Application that supports video conferencing, sending official emails, official documents, and digital signatures
- Supply Logistics application that connects companies with manufacturers/suppliers
- Customer service application to communicate with customers

Network Architecture Design

After identifying the application architecture, the next step is to propose the development of the technology architecture that is owned to improve system performance, as shown below:

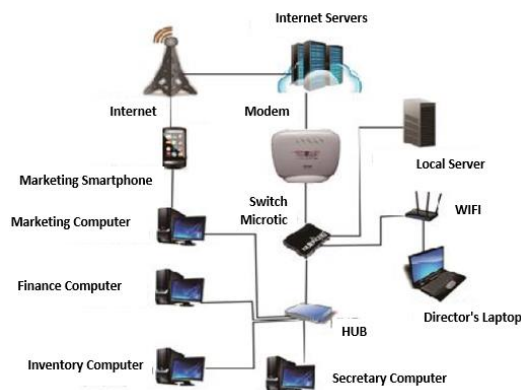


Figure 2. Network Architecture Design

CONCLUSION

The use of technology not only helps solve the problem of obstacles in limiting direct interaction during the pandemic, technology also makes it easier for companies to run their business due to the support of applications that are built, besides that because the system is online, workers do not have to always go to the office. The work is also easier to do because the system is already connected and automated so that processing time becomes more efficient.

In terms of communication, with a connected online communication system, companies no longer need to worry about waiting for document bureaucracy which is

sometimes hampered because after this system, all types of data and documents are stored on the same system but still organized so that data communication can run smoothly. in each division.

From a business perspective, the level of reach to customers has also increased because promotions through the internet are easier for everyone to access than coming to the store in person.

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