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## Marketing Information Systems: Database, Software, and Marketing Strategy

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**Abstract:** The aim of this research is to investigate the impact of electronic business information systems (ECRM) on the online market of business information systems. Limited to consulting, marketing and advertising buying and selling, we need a database to make your business easier, efficient, fast and easy and sell regardless of distance or time. That can happen. They can do it. For people, the importance of marketing information is that they can buy products online quickly and easily. After creating a product database, customers can easily register in the desired product database and pay for the product via bank transfer. Qualitative analysis was used in this research. The research results show that: 1) e-commerce has an effect on consumer information; 2. E-CRM affects customer information; and 3) collection of information that affects customer data.

**Keyword:** Marketing data, e-business, eCRM and data

### INTRODUCTION

In the current era of development, information technology is developing rapidly and its role in supporting human activities in the world has become very important. An example of technology that supports human activities is an information system. Information technology helps people manage all activities in the fields of business, commerce and Internet services through high-speed technology. This is the future (Balaka, 2023). The emergence of information technology has revolutionized digital transformation, financial services and business. One of the most exciting technological developments today is the emergence of the Internet. The industrial sector is the sector most vulnerable to the development of modern technology and communications. With e-commerce, CRM, and databases, you have many opportunities to compete and win business in a virtual environment. Based on experience, many students and writers have difficulty finding supporting articles in the form of previous research or related research papers. Relevant literature is needed to develop theory, test relationships or influence of variables, and develop theory. As part of a review of information systems literature, this article describes e-commerce databases, ECRM and marketing information systems. According to (Faujia et al, 2024) Businesses that use sales information systems are looking for

ways to integrate e-CRM into simple solutions to improve customer interactions and increase customer satisfaction with e-CRM. The marketplace also contains customer satisfaction information, including prices, reviews, customer information, offers and promotions. This information covers the procurement (service) process and helps purchase consumer goods.

E-commerce has a positive effect on purchasing public goods, e-commerce or access to information systems for companies to sell goods and services through information systems such as websites or other electronic devices. Because you need capital to start or build a small business, doing business through e-commerce facilitates the creation of a positive and meaningful relationship between e-commerce and information systems (Hamid, 2023). To develop an automated ecommerce notification system, managers must improve customer service by increasing sales, reducing costs, and speeding responses to customer questions and complaints, while projecting an image of integrity. Online payments are an important part of online shopping. Indonesia is the only country that has many payment methods. Examples: Credit Card, Bank Transfer, Click BCA, Mandiri ClickPay, Cash, T-Cash, etc. Among all payment methods, credit cards and bank transfers are the two most popular methods. In Indonesia, online transactions and bank transfers are more popular than credit cards. The development of e-commerce in Indonesia must be supported by laws that protect consumers from fraud, credit card fraud and other risks. This is why many customers feel uncomfortable when shopping online. The impact of e-commerce on marketing information systems. If buyers/sellers have a clear understanding of e-commerce, it will improve the quality of marketing information systems.

### **Marketing Information System**

These factors are critical to business success today. Every year, the amount of data available to business leaders increases, and the technology for using that data continues to improve. These changes make it difficult to use business knowledge and make it difficult for entrepreneurs who want to gain a competitive advantage in the marketplace. High performance is a direct result of the continuous growth and development of various information technologies. The business world is now more dependent on the global economy than ever before. Markets are greatly influenced by competitive actions, new government policies, scientific changes, changes in consumer and product behavior, prices, sales and distribution systems, and corporate communication methods. To compete in the information age, marketers need to find new ways to track market trends and their impact on business decisions. Establishing up-to-date information is important in decision making. Therefore, it is important to create an informative planning system (Leonidou, 2023).

The information environment in which companies operate today means business leaders will soon have all the information they need to make intelligent decisions and strategies. This is especially true for marketing managers. Marketers have complex methods for calculating the amount of data and other things that need to be done to analyze the data. Since most of the information gathered from data sources comes from the sales process, there is an opportunity for tools to help salespeople make informed decisions and make different decisions that impact sales growth. In addition, the sales manager sometimes takes precedence because he is the link between the organization and the environment (Maryani, 2023). The needs and demands of market leaders are constantly changing. We therefore choose a definition that emphasizes the flexibility of market processes. Marketing information systems are flexible and intuitive systems designed to provide information useful for decision making. Perhaps the most important part of this statement is that business information systems provide the information necessary for decision making. Competitive advantage is an ability or resource that allows a company to provide good products to its customers in the market and maintain its position over time. When we created SIP, we wanted to know what marketers were doing and what could

help them make better decisions. In this article we will discuss how marketing can create or help create competition (Meisya, 2024).

The aim is to explain the benefits of SIP. The health of a business can sometimes be uncertain. Some use the word marketing for advertising, others use the word advertising for advertising. Marketing, sales promotion and marketing are all parts of marketing, but marketing by all definitions has its own meaning. Because sales can be defined as an opportunity, different opportunities involve different activities, according to the AMA sales definition. That is, pricing, promotion and exchange of ideas, products and services that use ideas to create change that achieves personal and organizational goals. There is an exchange between companies and consumers in the market. Users can support organizations such as businesses. Competitors must not compromise or imitate to retain their customers (Pratama, 2023).

Therefore, this group can be said to have a competitive advantage in the market. Products and services refer not only to valuable or intangible goods (services), but also to other principles of exchange. This includes factors such as cost, cash flow, location and availability. These relationships may include housing, affiliation, relationships, and job security for members and employees. Data is very important for running a business today. The amount of information available to business leaders increases every year, and the technology available continues to change.

### ***System Information Sale***

A sales information system is everything from registering an invoice to receiving a sales order or obtaining trade credit, processing, calculating, adjusting and reporting sales to customers and other stakeholders. A business information system that includes many stages. checking product availability; quantity and price; production and printing of advertising materials; Use sales records or reports for management purposes. An integrated POS system includes sales receipts, inventory management, inventory, pricing, sales reports and printed pages. The development of information technology has significantly changed digital transformation, cash flow and business contracts. One of the most exciting things in technology today is the growth of the Internet. Business is the party most vulnerable to developments in modern technology and communication. With e-commerce, CRM, and databases, you have a greater chance of competing and winning business in the right places. Based on experience, many students and writers try to find supporting documents in the form of original research or related research papers (Pratiwi, 2023).

Relevant literature is needed to develop theories, test relationships or models, and develop hypotheses. As part of a literature review on management information systems, this paper explains the role of e-commerce, e-CRM and databases in marketing information systems. Companies using sales information systems need a way to integrate e-CRM into one simple solution to improve customer relationships and increase customer satisfaction with e-CRM. Marketplace includes features related to customer satisfaction, such as ratings, reviews, customer information, topics, and promotions. This database contains transaction information and helps customers purchase products. A marketing information system is an information system that provides methods and procedures for collecting, analyzing, disseminating and analyzing data to support marketing decisions (Purwanti, 2023).

### ***E-Commerce***

Electronic commerce is the buying and selling of electronic goods from one company to another with the participation of a computer as an intermediary in the transaction. Vide World is a platform that can be used for e-commerce online marketing services; Operation of information exchange systems. E-commerce is the process of buying and selling goods or services through online service providers. Six areas of IT success can be applied to e-commerce (Raharjo, 2023).

- a) type of system in the Internet environment; freedom of use; Something exists; Self-confident; The quality of an e-business system can be measured in terms of ease of use and response time (e.g. data entry and processing time).
- b) Quality of information related to e-commerce content. When a prospective buyer or seller starts an online business, your message must be clear, concise, and credible in the real world.
- c) quality of work. Technical support; Whether you are a new organization or an ISP, the company offers full support.
- d) Usage is measured when you visit the Website and view information and transactions.
- e) customer satisfaction. This is an important way to measure customer reactions to e-commerce offers, goods or services purchased; This should include user information during the billing and licensing process.
- f) Privileges. Provided by customers. trader; enterprise market; Company. It is also important to balance the economic and social benefits of e-commerce.

It is easy to differentiate these groups (Salam, 2023):

1. Business-to-Business (B2B) is an e-commerce model where the e-agent is a company, so there are negotiation and communication channels between each company.
2. From consumers to the business world (B2C); An e-commerce model where the seller collaborates directly with the seller (e-commerce provider) and the public or customers.
3. Customer to customer (C2C); This is an e-commerce business model where you interact with sellers and interact directly with customers. Many e-commerce sites use this type of e-commerce concept.
4. An electronic business organization that combines or integrates one or more organizations. This type of e-commerce is rarely found in Indonesia.

The technological environment has many challenges, such as the creation of new products, services, or business opportunities that affect business operations and meet business needs. Always remember that your competitors are using technology that will give you a competitive advantage. Another technological revolution was the Polaroid camera. This can lead to applications such as generators or airplanes. The second is the development of modern technology. Additionally, advanced technology helps reduce production costs and improve existing products. Technological changes affect product lines and distribution channels, which can affect many of the services a company provides. Technological changes create new competition and change the nature of business (Sari, 2023).

## **E- CRM**

E-CRM is the use of digital communications technology to improve business relationships with existing customers and facilitate the use of online services. CRM includes the following steps (Sariyono, 2023).

- a) Attract new customers: Improved services, new methods and easy data collection are constant steps to attract customers.
- b) The number of users is increasing.
- c) Retaining existing customers: Each customer has different needs and it is very effective to provide products that suit their needs. Based on data analysis and customer actions, companies study customer behavior and needs, not only marketing strategies but also the product benefits offered to customers. The goal of this process is to retain existing customers. Retaining current customers is a good name for a business.

Electronic customer relationship management (CRM) is customer management for e-commerce companies that addresses the complexity and importance of managing customers and business partners across all communication channels, including online and offline, face-to-face, and other electronic media. E-CRM is important to reduce costs and increase the efficiency

of customer data management. E-CRM is based on CRM but focuses more on the individual. E-CRM facilitates transactions through electronic means. Customers can order products directly from the store. This can affect the relationship between the company and customers because customers feel satisfied with the services provided (Sissy, 2024).

### Databases

A database is a structured collection of information that a computer program uses to retrieve information from a database. Computer-based information processing and a comprehensive and integrated database are used to control the decision-making process to create a management information system (SIM), the data in the database is very small and is very important for creating a good and accurate database. The data in the database is compiled and published (Singalen, 2023):

- a) data files associated with the linked database (data dependencies);
- b) Data is shared, the same data can be used by many users at the same time. This is often referred to as a multipurpose system.

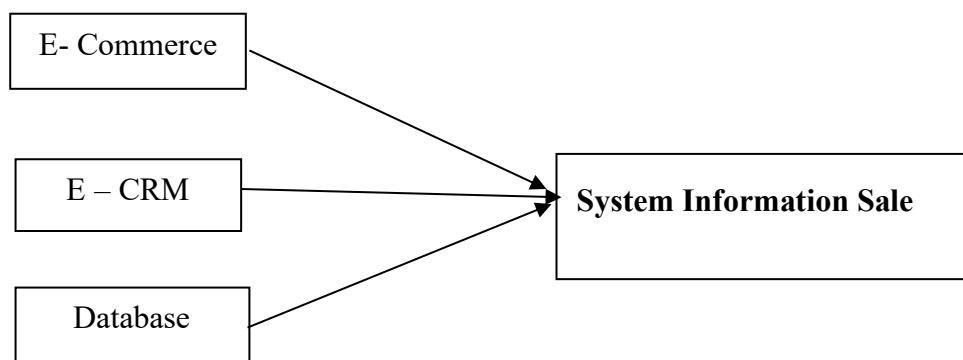
The database contains the database name and data. Location can be defined as head office or warehouse. Furthermore, data is a collection of real facts which include people, objects, animals, ideas, events, etc. which are expressed in the form of letters, numbers, symbols, images, text, sounds, or images. The collection. One of the advantages of databases is easy access to data. This easy data access results in consistent data storage, which is important in a database environment.

Database development involves three main phases.

- a) Database design is the process of creating a data model for use by an organization and is not based on physical concepts.
- b) Basic logic design is a way to create an information model used in an organization, based on the definition of a data model, without a DBMS (data management system) and other other systems.

### METHOD

Qualitative research should use empirically based literature reviews. In other words, the questions researchers ask must be carefully designed to avoid manipulation. An important part of qualitative research is the research results. The following framework will be discussed in this research:



### RESULTS AND DISCUSSION

#### Influence E-Commerce to System Information Sale

Online shopping influences business models. This form of e-commerce, the sale of goods or services through other electronic means such as the Internet or social media, attracts consumers. They use e-commerce because they don't have the money to start or sell a business. Business process analysis helps companies integrate e-commerce data with effective and

efficient marketing.

To increase sales opportunities, invest in an online store, upgrade cash registers to increase sales, improve payment processes, respond quickly to customer questions and complaints, and improve product quality. There are several differences between conventional marketing and digital marketing ( *E-Commerce* ):

**Table 1. Difference marketing conventional with marketing digital**

<b>Method Marketing Conventional</b>	<b>Method Marketing Digital</b>
Marketing traditional covers media print, broadcast, letter straight away, and telephone	Marketing digital covers advertising on line, email marketing, social media, text messaging, marketing affiliate, machine optimization seeker, pay per click
The result easy be measured	The result part big easy be measured
Campaign advertising planned in period time that long	Campaign advertising planned in time short
Process expensive And eat time	Method Which cheap enough And fast For promote product or service
The success of traditional marketing strategies can be celebrated If company can reach audience local Which big	Success strategy marketing digital can celebrated If company can reach a number audience local certain
One campaign applies For time Which long	Campaign can with easy changed with easy And innovation can introduced in campaign What even
Reach limited to customer Because limited amount technology customer	Reach Which more wide to customer Because use various technology customer
Exposure throughout year 24/7 No possible	Exposure throughout year 24/7 possible
No There is ability For become viral	Ability For become viral
Conversation One direction	Conversation two direction
Response only can happen during O'clock Work	Response or bait get it back happen When just

Online payments are an important part of the shopping process. There are several payment methods in the Indonesian system. Credit Card, Bank Transfer, Click PBCA, Mandiri Click Pay, Bank Transfer, Three Cash. The most common payment methods are credit cards and bank transfers. But online banking in Indonesia is more than just a card for transferring money.

Business development in Indonesia must be supported by policies that protect consumers from fraud, credit card fraud and other unfair practices. As a result, many consumers feel more comfortable shopping online.

Online stores collect customer data and when online stores maintain good relations between buyers and sellers, it improves the quality of customer data.

**Influence E-CRM Against the System Sales Information**

Companies implementing marketing information systems need skills to integrate e-CRM into their applications to increase customer satisfaction and increase customer satisfaction with e-CRM. Marketing databases include customer satisfaction data such as ratings, reviews,

customer feedback, testimonials, and promotions. Shopping lists are businesses that simplify the shopping process for customers.

These results show that all aspects of the online CRM system have a positive and significant influence on customer satisfaction and loyalty. In 2014, e-CRM collaborated with Safi Alim and Wilson Ozumi to create a happy and positive environment and provide satisfaction and satisfaction to customers. Kotler (Rattini, 2013) believes that there is a relationship between product quality and service quality, where the more services there are, the more customer satisfaction will increase. Customer satisfaction influences customer loyalty, and customers are satisfied when they receive quality products and services. Customer satisfaction with the online CRM system has a positive and significant influence on customer loyalty in customer relationships.

### **Influence Databases Against the System Sales Information**

The information is stored in a database on your computer so you can retrieve it using software. Software that creates and queries databases is called a database management system (DBMS). System communication information. Data influences customer profiles, improves buyer/seller prices, or enhances the online shopping experience. By connecting this customer data to your database, you can create customer profiles and focus your sales on accurate and relevant results. Databases allow storing, retrieving and managing data.

### **CONCLUSION**

Based on research, articles and discussions on this topic, we can explain another research: E-commerce is influenced by social media. E-CRM affects customer data. Data influences the flow of market information

For an organization or business, marketing information includes online marketing, online customer relationship management, and more, so more research is needed to identify the important elements.

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