WEB BASED MARKETING MANAGEMENT INFORMATION SYSTEMS
(Study at CV. Karya Gaja Mandiri)

Brahma Prananta Aditya
Kertahadi
Riyadi
Business Administrative Science
Brawijaya University
Malang
E-mail: brahmantaaditya@gmail.com

ABSTRACT

The purpose of this study was to produce an accurate of information source, the right to also effectively and efficiently in carrying out marketing management in accordance with technological developments. This research method is qualitative research with descriptive approach. The focus of this research is to understand the overview of web-based marketing information systems and understand the overview of web-based marketing information system in support of marketing management that applied at CV. Karya Gaja Mandiri. Marketing information systems is become important thing for company in solving the marketing issues and analyzing the ways of company in competing with the others competitors, therefore the company can survive in the business competition. The results of this study are indicate several ways in marketing the product by online media using technique SEO (Search Engine Optimization) in attracting visitors online media and using DSS (Decision Support Systems) in planning the marketing strategies to create marketing activities can be run effectively and efficiently.

Keywords: Marketing Information Systems, Marketing Management, Website

ABSTRAK

Tujuan dilakukannya penelitian ini adalah untuk menghasilkan suatu sumber informasi yang akurat, tepat guna juga efektif dan efisien dalam menjalankan manajemen pemasaran sesuai dengan perkembangan teknologi. Metode penelitian ini adalah penelitian kualitatif dengan pendekatan deskriptif. Fokus penelitian ini adalah untuk memahami gambaran sistem informasi pemasaran berbasis web dan memahami gambaran sistem informasi pemasaran berbasis web dalam mendukung manajemen pemasaran yang diterapkan pada CV. Karya Gaja Mandiri. Sistem informasi pemasaran menjadi hal yang sangat penting bagi perusahaan dalam menyelesaikan masalah-masalah pemasaran dan menganalisa cara perusahaan untuk bersaing dengan para kompetitor, sehingga perusahaan tersebut dapat bertahan hidup dalam persaingan bisnis. Hasil penelitian ini menunjukkan beberapa cara dalam memasarkan produk melalui media online dengan menggunakan strategi SEO (Search Engine Optimization) dalam menarik pengunjung media online dan penggunan DSS (Decision Support Systems) dalam merancang strategi pemasaran agar kegiatan pemasaran dapat berjalan secara efektif dan efisien.

Kata Kunci: Sistem Informasi Pemasaran, Manajemen Pemasaran, Website

INTRODUCTION

Now a day is globalization has demanded the company to be able to survive in the market and continues to grow. In order to achieve the necessary economies of scale, the company must achieve low cost and low price must be more competitive company. In principle, corporate is institution that organized and implemented to provide goods or services to the community with the motive of profit oriented. In this case the company is made sales to the public of consumers in the market, and then expected from the result of sale make the company to achieve the goal.

One of the important decisions to be formulated is a marketing management. Marketing management which is what the company will do in the market. In order to implement the marketing management requires to be known that a marketed product will enter the stages of development in marketing called the product life cycle, in line with the marketing management is used will be amended in accordance with the ever changing market situation.

The company is should be able to understand how to maintain the market competition, which means is marketing information system. Marketing information system is something that required to be found by the company in an effort to grab market opportunities, as well as in anticipation of market issues, the leaders need to look for an integrated information and reliable in easy to take decision. Without observing and researching the customers and data on costs, then the leader will not be able to carry out market analysis, planning, and controlling of the market.

Maxisoft Software is a system that integrates things the charging of *pulsa* and PPOB (Payment Point Online Banking) who performed the manual to automatic. In automatic working, *pulsa* and PPOB software has been designed functions that can read all the things that might happen to be executed in computerization. In general, the work of these *pulsa* software is replacing human jobs that manual and require extra time, time is not flexible, less conscientious, and require the strategic place to serve buyers.

Effective marketing is required by the operating profitably and make business development more quickly. Marketing activities will be successful if it has been run effectively and efficiently. Marketing effectiveness is required by the company in a good profit by minimizing spending expense. In understanding the marketing activities should be understood in advance of marketing information systems for information required for decision making in determining marketing strategies, determining the marketing mix, and resolve the problems that will be faced. The quality of marketing information is needed in order to understand the marketing manager steps to be taken in decision making. For that marketing managers must be very careful in making a decision to regulate marketing management.

THEORETICAL FRAMEWORK

A. Empirical Studies

Basis or reference in the form of theories or findings through results previous studies is very necessary and can used as support data. One of the supporting data by Researchers needs to be a separate section is relevant previous research with the issue being discussed in this study. In this case, the focus of previous studies referenced is associated with problems information systems.

B. Information Systems

According to Rosses in (Jogiyanto, 2005:11) defines information systems that "The information systems is a system within an organization that brings daily transaction processing needs, supports operating, managerial and strategic activities of an organization and provide for certain outsiders with the necessary reports".

C. Management Information Systems

According to McLeod (1995:30) management information systems is defined as a computer-based system that provides information for multiple users with similar needs. Users normally establish a formal organizational entity, corporation or one of the main systems of what might happen in the past, what is happening now, and what might happen in the future. Such information is available in the form of periodic reports, special reports, and the output of a mathematical simulation. Output information is used by managers and non managers in the company when they make a decision to solve the problems.

D. Marketing Information Systems

According to McLeod (2001:344) defines marketing information systems as follows: "Marketing information systems is a computer-

based system that works in conjunction with other functional information systems to support the firm's management in solving problems that relate to marketing the firm's products". Marketing information systems is activities of the company are used to find the required information within the company makes it easy to give the right decision in determining effective and efficient marketing. Marketing information systems is also used by companies to give a decision in determining the marketing mix (4P) people, product, price, and promotion.

Each head of the company has always faced the problem of decision making, policy determination, and implementation of the strategy of the company, in the achievement of corporate goals and objectives expected. One form of decision making of the determination of policy and strategy of the company is planning firm.

According to Mc Leod (2001:345), a model of marketing information systems are consists of a combination of input and output subsystems that are connected to a database. The model of marketing information systems are consists of:

1. Output Subsystems

   Each subsystem output provides information about the subsystem as part of the marketing mix. The output subsystem consists of subsystem products that provide information about the product (product) of a company, subsystem where (place) that provides information about the company's distribution network, subsystem promotion (promotion) that provides information about the company's advertising and personal selling activities, subsystems price (price) that helps managers make pricing decisions, and mixed integrated subsystems that enable managers to develop strategies taking into account the effects of the combination of raw materials.

2. Input Subsystems

   Input subsystem consists of Accounting Information Systems that provide data describing the transaction of corporate marketing, Marketing Intelligence Subsystem provides information of environment companies related to the company's operations, Subsystems Marketing Research conducted a study related to marketing operations with the aim

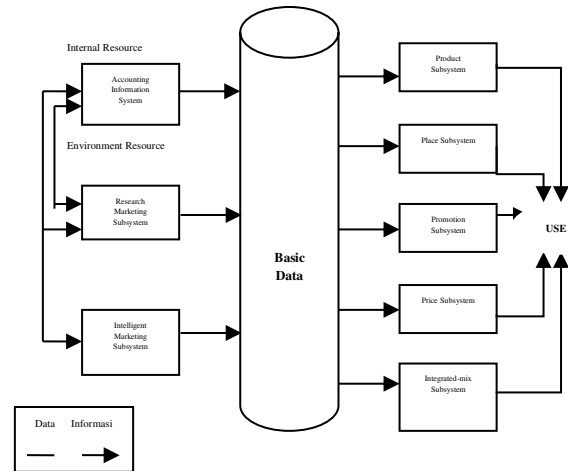of studying customer needs and changing marketing efficiency.

Figure 1
The Process of Marketing Information Systems

Source: Mc Leod (2001:345)

E. Web Based Marketing Information Systems

Web based marketing information systems is a information system that organized the set of procedures and methods that is designed to produce, analyze, disseminate, and obtain information to support marketing decision making with using website to make easier for company in order to run the marketing activity. The system is used to run the marketing activity effectively and providing the maximum result to obtain the profit.

1. **The Concept of Internet**

   In this era, internet is always become a daily needs to run the activity, especially company in running the business. Internet is used to run the each division in the business activity, especially marketing activity. The role of internet in marketing activity is as media information to introduce the company profile and promote the product company to customer, therefore the company to become famous in society.

2. **The Concept of Website**

   Website is one of the resources rapidly growing Internet. With the website, visitors can explore the online media and internet sources to get the information needed. The website is very necessary for the company to introduce the identity to the public and serve as a promotional product to customers.

3. **Concept of E-Commerce**

   E-commerce is an activity of buying and selling of products or services that are

conducted by online from any location using the Internet as a communication media.

4. The Mechanism of E-Commerce in Web Based Marketing Information Systems

Studying E-Commerce is actually quite easy, because it is not much different from the understanding of how the trade or business during this run. The differentiation is the involvement of computer technology and telecommunications intensively as a means to do two main things (Kosiur, 1997):

    a. Process the raw data into information that can be used jointly by businesses and consumers

    b. Distributing data or information quickly and efficiently to all components of the business that need.

From the various types of E-Commerce applications that exist, in principle mechanism works more or less the same. As seen in the figure below:
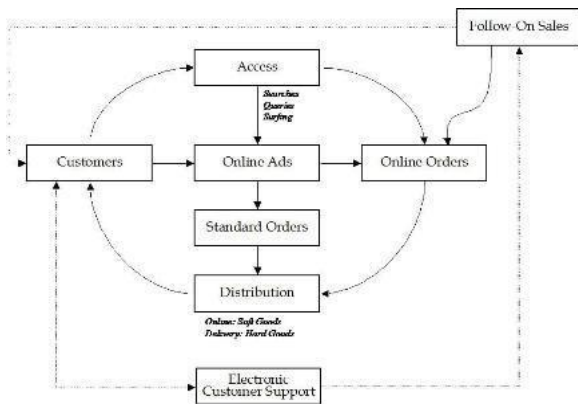

Figure 2 The Mechanism of E-Commerce

Source: David Kosiur (1997)

5. Search Engine Optimization (SEO)

SEO is a technique that is used by website creator, in the attempt to reach the main page of the search results of search engines, especially Google. In this case, the search engine Google has always been the benchmark and the main objective of each visitors, because Google is the biggest search engine on the internet, with the highest users in the world.

F. Basic Concept of Marketing

Marketing is the most important activity by companies to promote a product. The key success companies can look from the way the companies to market the product. Marketing is a concerted effort to incorporate strategic plans directed at satisfying the needs of business and consumer desire to obtain the expected profit through the exchange process or transaction.

G. Marketing Management

Marketing Management is one of the main activities undertaken by the company to maintain the continuity of the company, to grow, and to make a profit. According to Boyd, Walker, and Larreche (2000:18) defines marketing management is a process of analysis, planning, implementation, coordination, and control of marketing programs that include product policy, pricing, promotion, and distribution of products, services, and ideas are offered to create and enhance the benefits of the exchange with the target market in an effort to achieve organizational goals.

H. Marketing Mix

According to Kotler (2005:17) understanding the marketing mix is a set of marketing tools that companies use to continually achieve its marketing objectives in the target market. Marketing Mix is a combination of variables that can be controlled by companies to influence consumer response in the target market. Variable or activities need to be combined and coordinated by the company as effectively as possible, in its marketing activities. The fourth element is the supply of products, pricing structure, promotion, and distribution systems. These four elements of the marketing mix or can so called 4P (Product, Price, Place, and Promotion).

I. The Roles of Web Based Marketing Information Systems to Marketing Management

Marketing management is a important activity for companies in promotion the products. Company will fail if the company does not have a good marketing management structured. In achieving the objectives, the company must have marketing systems that is effective and efficient so that the products can look attractive to customers. In determining the marketing strategy are needed timely and accurate information then marketing can be done effectively and efficiently. The decisions are provide to develop a new product should be considered carefully and with good financial base and made by the executive.

1. Decision Support Systems

Decision Support Systems (DSS) is computer-based information system that

supports business or organizational decision-making activities. DSS serve the management, operations, and planning levels of an organization and help to create decisions, which may be rapidly changing and not easily specified in advance (Unstructured and Semi-Structured decision problems).

RESEARCH METHOD

A. Type of Research
In carrying out a study can be used a variety of methods, depending on the problem to be investigated. Having regard to the purpose of the study is associated with the title of the kind of research that will be used is descriptive qualitative research. Arikunto (2002:9) explains that research is a descriptive qualitative study conducted with variables explains or describe the past and present (is going on).

B. Research Focus
1. Web based marketing management information systems that applied by CV. Karya Gaja Mandiri.
2. Web based marketing management information systems to support the marketing management at CV. Karya Gaja Mandiri.

C. Data Analysis
Data analysis is the process to change data of analysis results to be information that used to take a conclusion in research. According Creswell (2007:150) proposed data analysis same like a data analysis spiral. Said spiral because the processes of data collection, data analysis, and report writing are not distinct steps in the process, they are interrelated and often go on simultaneously in a research project.
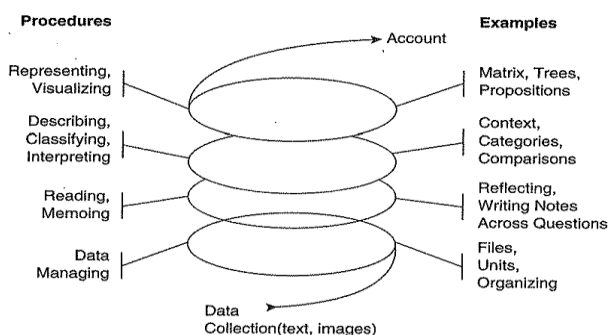

Figure 3 Data Analysis Spiral
Source: Creswell (2007:151)

RESULT AND DISCUSSION

A. General Description of Web Based Marketing Information Systems at CV. Karya Gaja Mandiri
Marketing management information systems is required in order to be effective marketing so that can produce the maximum results. In order to achieve maximum results the company required the online marketing systems. Online media serves as a media of information to be delivered to the customer. Aided by good marketing information system online media becomes necessary things to achieve the objective of a company. A key part of the marketing information system is to deliver information as input for fast decision making, precise, and accurate.

1. **Applications That used to Market The Product**
   a. Website (http://maxisoft.co.id/)
      Website is a media that provides all the information about the company profile, the type of product that marketed, product specifications, and how to order the products Maxisoft.
   b. Social Network
      Social Network is the media communication that used to promotional products of company and being the communication tools between the companies to customer. Social Network is considered as the interface between companies and customers without face to face directly. CV. Karya Gaja Mandiri using the variety of social networks in marketing their products, such as: Facebook and Yahoo Messenger.

2. **The Description of Maxisoft Product**
   a. Software That Used to Create The Maxisoft
      Maxisoft is using platform coding Delphi as programming language and MySQL as database so that the produced software becomes more complex.
   b. Hardware That Used to Support The Maxisoft consist of:
      a) 1 Unit Computer high specification (depend on the product version).
      b) Modem pool (16 pot, 32 pot) or modem single or HP (Hand phone) Siemens for GSM (Global System

Mobile) and Nokia 6235 for CDMA (Code Division Multiple Access) or modem CDMA (Code Division Multiple Access).
  c) Port USB (Universal Serial Bus)
  d) Internet Network

3. **Data and Information Access**

Data and information that access for internal and external Maxisoft activity can access with the ways, such as:

a. Global Internet Access

Each customer who wants to know everything about the services and information provided by CV. Karya Gaja Mandiri can access by the internet network. In Maxisoft is 90% activity using the internet access to run the business so that the internet access is has important role. The information that provided in outlines such as, order procedures, company profiles, product information, the types of products, and product superiority among other products.

b. Applications
  a) Ask Question via Yahoo Messengers
     Basically yahoo messengers are used to tools of communication between the customer service center with website visitors. There are 18 support teams that ready to serve visitors when visitors are still confused about the product Maxisoft for 24 hours non-stop. Icon of Ask Question located on the left of the main page of the website www.maxisoft.co.id.
  b) Teamviewer
     TeamViewer is a program that is quite simple and very easy to use for multiple purposes, especially to access your (Personal Computer) PC remotely via Internet. This software is one application called Remote Desktop. Remote Desktop is a term that describes where a computer that can be controlled by others computer using the media of computer networks such as the Internet. This application is used to monitor the user to understand the using of Maxisoft Software. The user is

guided by a Team Support to install Maxisoft Software by TeamViewer application. TeamViewer is also useful for internal communication between President Director and Team Support Maxisoft from various areas to monitor the operations.
  c) Forum Group Facebook
     Facebook group is only available to users who already used the product Maxisoft. This group is useful for notification for user to know the internal information about Maxisoft software, such as updating information, system error, and the development of product.

B. **The Role of Web Based Marketing Information Systems To Support The Marketing Management**

Marketing information system has a very important role in supporting the marketing management at Maxisoft. Marketing information systems is using for Maxisoft to solve the market issues and plan the marketing strategy to run the marketing activity can run effectively and efficiently using DSS (Decision Support Systems). Marketing activity that implemented by Maxisoft is also from e-commerce. Marketing activity from Maxisoft mostly implement by online media and that holds a large role is the website.

1. **Description of Website Role In Marketing The Maxisoft Product**

Websites become main marketing from the business of developers software. Average which has become Maxisoft user is beginning from website visitors who read the Maxisoft website. Maxisoft have 7 paid websites are used in order to reach out and capture software users in Indonesian,

2. **Using Website as Technique of SEO (Search Engine Optimization)**

Website is becomes a important role to Maxisoft in marketing the products. The purpose of creating the 7 Maxisoft official websites is become as marketing strategy by using the techniques of SEO (Search Engine Optimization). SEO (Search Engine Optimization) is a technique to create a site or a blog to be on position page number one in the search engines like Google, Bing, and Yahoo. Understanding of SEO (Search Engine

Optimization) is also very wide but all includes have the same thing that optimizes a web page or blog pages that are position in number one in search engines with target keywords.

3. Marketing Information Systems as Decision Support Systems (DSS)

Marketing information systems can also be used as a Decision Support Systems (DSS) that is used by marketing management in making marketing decisions. Decision Support Systems (DSS) is an interactive computer system that helps in decision making in using and utilizing the data model to solve a company problems. Decision Support Systems (DSS) are purpose to understand and determine the activities of the company management was run effectively or ineffectively.

    a. Source of Information (Input)

        a) Intern Data:

          1) Sales Data

            Sales data is the data that recorded every time if there is a transaction on Maxisoft product.

          2) Visitors Website Data

            Visitor website data is data that filled number of visitors that enter to the website Maxisoft. In this data can be used to look the percentage of visitors who will ask about the product Maxisoft and visitors who will buy the product Maxisoft.

        b) Extern Data:

          1) Market Research

            In some cases would need the useful analysis to understand the problems to be better marketing. For the good requirements analysis, required the marketing research so that will providing useful information to create the best decisions on the basis of right thinking.

    b. Process

Developments and trends in the marketing environment, both internal and external is entered in the database then processed by the Decision Support Systems, necessary to merging the two sources of information into one system. The marketing information is used to the marketing manager to help in the analyzing, planning, implementing, and controlling the marketing activity. In marketing information there are the case that must be analyzed, namely 4P (product, place, price, and promotion), but Maxisoft does not require the place in analyzing marketing information because marketing that implemented by Maxisoft mostly done by online media.

    c. Result of Information (Output)

The results of actions that taken from marketing information is flows back to the marketing environment such as, the marketing recommendation decisions. Marketing decisions recommendations are requested approval to the directors to be the right marketing decisions and providing the effective marketing, therefore the company can running the business well and survive in the business competition.
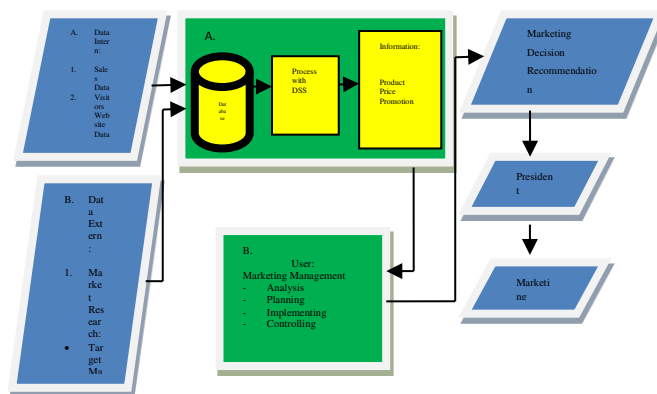

Figure 4
Decision Support Systems

Source: Data Processing

C. Data Analysis and Interpretation

This study is using spiral data analysis in illustrates the Maxisoft web based marketing information systems. The steps are performed in data analysis and interpretations are as follows:

1. Data Managing

The first step analysis of data that must be intent is from the research focus in this research. In describing the web based marketing information systems and describing the web based marketing information systems to support the marketing management, the first must be implemented the research is collecting data from interview, information from website contents,

and the applications to build web. The focuses in this research, such as:

a. **Web Based Marketing Information Systems That Applied by CV. Karya Gaja Mandiri**

First focus in this research is describing the web based marketing information systems that applied at CV. Karya Gaja Mandiri. In describing the web based marketing information systems, the data collection that must be conducted by researcher based from interview, website contents, and the applications to build the web. Interview that conducted in this research is used to make data collection more complete and accurate.

b. **Web Based Marketing Information Systems to Support The Marketing Management at CV. Karya Gaja Mandiri**

Second research focus is describing the web based marketing information systems to support the marketing management. The collecting data that conducted by researcher to present the research based from interview.

2. Reading and Memoing

From the data that has been collected and categorized in this research can be described that web based marketing information systems that used by Maxisoft based on (Davis Kossiur, 1997) today illustrated in the following figure:
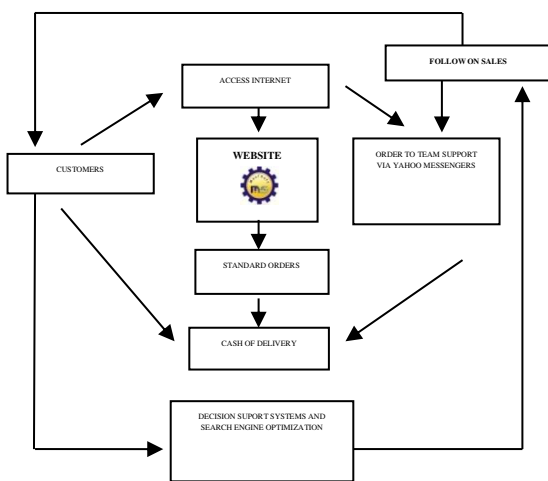

Figure 5
The Mechanism of Web Based Marketing Information Systems

Source: Primary Data That Processed

3. Describing, Classifying, Interpreting

a. **Describing**

In this section has described the description of the web based marketing information systems and an overview of web based marketing information system in support of marketing management performance. Maxisoft Software is using online media to market the products. Website was plays main role in marketing the product Maxisoft Software. In the website there is information that describes everything about Maxisoft Productions, such as company profiles, corporate identity, the types of products based on the version, product advantages compared to other products, the system requirements, network websites, and contact person of the company.

Web based marketing information systems has become an important role in supporting marketing management performance in Maxisoft Software. Planning marketing strategy requires effectively marketing information systems is used for marketing management in taking a decision. Marketing strategies that does Maxisoft is utilizing the website as an media information by using SEO technique (Search Engine Optimization).

b. **Classifying**

Classifying process trying to classify to some part from web based marketing information systems that exist such as, input, process, and output:

a) Input:
1) Customers is entering the website Maxisoft
2) Customers is reading the information
3) Customers is talking to Team Support via Yahoo Messengers about the price
4) Team Support is ordering product to President Director and preparing the serial number of program software

b) Process:

1) Implementing the Decision Support Systems and Search Engine Optimization for marketing strategy to attract the customers
2) The Marketing strategy is influencing the following sales of company

c) Output:
1) More orders can influence to follow sales
2) More sales will be influence to development of company and can survive in business competition

c. Interpreting

Interpreting process is the implementation of recommendation by author from interview result to creating marketing activity more effectively and efficiently. Additional the link banner in others website and more innovation the articles of website can make the visitors more interest with the website and then the visitor of website is increasing. The description of new systems as author recommendation based from the interview that explained in figure:
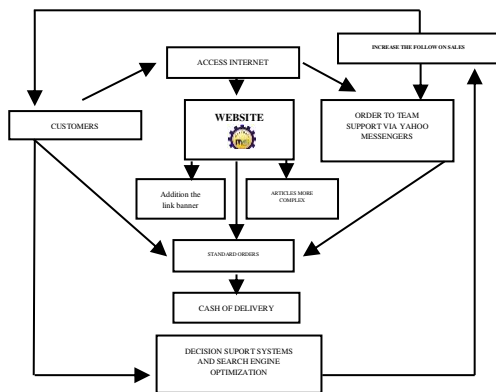

Figure 6
The New System of Web Based Marketing Information Systems

Source: Primary Data That Processed

4. Representing, Visualizing

At this stage made the reengineering overview activity of the role marketing information systems in the form of display in general. Here is an reengineering overview of the web based marketing information systems.
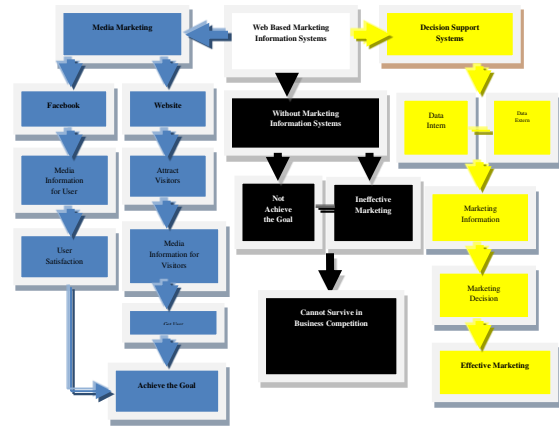

Figure 7
Reengineering of Web Based Marketing Information Systems

Source: Data That Processed

D. Proposition

Web based marketing information systems has important role in marketing the product of Maxisoft Software. Web based marketing information systems is strongly support for marketing management in marketing the Maxisoft products and formulates the marketing strategies as decision support systems. The existing of marketing information systems creates the companies can runs the marketing activity effectively and efficiently so that the companies easier to obtain the profit.

Without the existing of web based marketing information systems, the CV. Karya Gaja Mandiri is not able to market the Maxisoft products effectively so that the marketing cannot runs well and becomes ineffective marketing. The ineffective marketing is creates the company only has a little customer then influence to reduction the sales volume product thus the company is difficult to develop the business, so that is why the web based marketing information systems is becomes important role in running the business so that the company can runs the marketing management effectively and achieving the goal of company then company be able to survive in the business competition.

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the results of research that conducted by researcher so can know the description about web based marketing information systems and description of web based marketing information

systems to support the marketing management that applied at CV. Karya Gaja Mandiri as follows:

1. The description of web-based marketing information systems:
   a. CV. Karya Gaja Mandiri is using the two ways to market the Maxisoft Software by internet, such as website and social network. Website function as the source of information product that is used to provide information to customers about all information of the product company. The website is using to interest the customers to buy the product and media communication between customer and company. Other website, there is a social network that is used by company to market the product.

2. The description of web-based marketing information systems to support the marketing management:
   a. Web based marketing information systems is important to support the successful of marketing management. Online media and Decision Support System are becomes the important thing to run the marketing management in CV. Karya Gaja Mandiri effectively.
   b. Online media is being the important role to marketing the Maxisoft product. The communication tools to customer are also using the online media by social media. The customer is always serviced from online media by Team Support without meet directly in somewhere. The information about Maxisoft also available by online media.

B. Suggestion

Based on the results of research that conducted by researcher at CV. Karya Gaja Mandiri and based on the result of conclusions above, so the suggestions that are provided as follows:

1. The promotion has conducted by Maxisoft until today is from online media. Promotion only by online media still ineffective because the product cannot be known by around society. Maxisoft is should be running the promotion by mass media, such as IT magazine (Information Technology), IT event (Information Technology), TV, and radio, so that Maxisoft product can be known by around society. However, promotion by mass media is required the high budget but will provide the maximal result.

2. As author explained before, website is becomes important thing to providing the information to customer for make the customer interest with the information in website. The articles in Maxisoft website is still not complete and the articles not complex so that customer getting bored. Maxisoft Team should be record the updating the information product in website and more explained about SEO (Search Engine Optimization) and DSS (Decision Support Systems). If the website be used to some related articles about IT (Information Technologies), so the visitors will be interest with contents in website.

BIBLIOGRAPHY

Arikunto. 2002. Metodologi Penelitian Suatu Pendekatan Proposal. Jakarta : PT. Rineka Cipta

Boyd, Walker dan Larreche. 2000. Manajemen Pemasaran : Suatu Pendekatan Strategis dengan Orientasi Global, Edisi Kedua. Jakarta : Erlangga

Creswell, J. W. (2007). Qualitative inquiry and research design: Choosing among five approaches. Thousand Oaks, CA: Sage Publication.

Jogiyanto. 2005. Analisis & Desain Sistem Informasi : Pendekatan Terstruktur Teori dan Praktek Aplikasi Bisnis. Edisi 3. Andi, Yogyakarta

Kotler, Philip. 2005. Manajamen Pemasaran, Jilid 1 dan 2. Jakarta: PT. Indeks Kelompok Gramedia.

Kosiur, David. (1997). Understanding Electronic Commerce – How Online Transactions can Grow Your Business. Microsoft Press. Redmond. Washington.

Raymond McLeod,Jr. 1995, Sistem Informasi Manajemen, Jakarta : PT.Prenhalindo

_____. 2001. Sistem Informasi Edisi 7 Jilid 2. Prenhallindo. Jakarta