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Research Paper

### Online Sales Improvement System Design Using Soft System Methodology (SSM)

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### **ABSTRACT**

To maximize the benefits of new products, appropriate marketing media and attractive features are needed as good promotional tools in the marketing model. The influence of technological developments has led to the high use of the internet as a new transformation in creating business paradigm in the form of online sales in the e-commerce websites. This research aims to improve the sales system by designing a marketing media improvement model that has a sale value from the marketing system that was done previously. This research uses qualitative methods, namely Soft System Methodology (SSM) as a method that can be used to analyze the state of the marketing activity model. The results of this research were applied to a web design by improving web design and the application of web optimization with the large added value which is obtained by the implementation of improvements that was done reaching an index of 55%, so that websites have selling points and attract potential customers.

*Keywords:* E-Commerce, Marketing Strategy, Search Engine Optimization, Soft System Methodology, Web Design.

### INTRODUCTION

The increasingly rapid development of technology in the era of globalization has had a considerable influence on economic development by internet users. The internet has changed the way people get information purchases. about potential Enables "customization" of products, services and promotional advertisements different from before, improve customer relations, more effective and efficient, business environment, increase change consumer power, access to information on various products and services, as well as instant and interactive exchanges (Schiffman and Kanuk, 2004). According to a survey conducted by the Internet Network Organizing Association of Indonesia revealed that more than half of Indonesia's population is now connected to the internet and has increased compared to the previous year. The results of Indicator survey ICT 2016, showed that there were 31.0% of respondents who had used the internet, 24.2% of internet users conducted e-commerce activities, or around 19.5 million Indonesian population (Kominfo, 2016).

According to Sunyoto and Putri (2016), marketing is an activity process that is influenced by various factors such as technological, social, cultural, political and managerial factors based on thorough analysis of the influence of the company's external and internal environmental factors. Franco and Bulomine (2016) say that marketing activities can be done conventionally, but with the increasing use of the internet in the society makes marketer

need to develop new media for marketing strategies.

Kim (2008)states that application of e-commerce has increased market expectations in various consumers. Sites for businesses in the digital era must be able to accommodate requests from prospective customers and succeed in online marketing; a website must be equipped with functions that can support it and how to manage it. This has an effect on companies that have an online sales system, one of them is the seller of Tingu products. Tingu is an herbal product that is processed by CV.Tunas Karya Mandiri which has a distinctive composition made from Tin fruit extract which is currently facing problems in the field of marketing that is carried out.

This research was conducted to develop marketing strategy system influence the development of digital marketing based on Internet Based Marketing using the Soft System Methodology (SSM) which is described as stages of seven the process. This practitioner approach can be applied to all topics by developing concepts to articulate ways of thinking about complexity as the most appropriate and relevant concept models for organizations that can then be successfully developed and applied (Wilson, 2001). By looking at whether the idea system being formed can help overcome complex management problems, and is broadly defined (Chekland, 2000).

### LITERATURE REVIEW

### **Marketing Strategy**

Marketing strategy is a marketing mindset that will be used to achieve marketing objectives by including tactics and supporting programs such as products, prices, distribution, marketing, and communication strategies (Kotler et al., 2012). The existence of marketing strategy innovation is an emphasis on various types of innovations and patterns related to resource allocation, aligned with its strategies at the company unit level and business with the value creation results

using knowledge and resources that relevant for the conversion of ideas into new products, processes, or practices with the potential to have large transformation effect on the evolution of markets and industries (Varadarajan, 2018).

Astuti & Syah (2017) say that organizations must be able to form a creative department or creative division team to be tasked with compiling and executing creative material to create maximum advertising that aims to build the company's image. Khairani and Syah (2017) state that service quality is a factor that can improve the quality of good relationships including perceptions of customer trust, satisfaction and commitment that must be maintained and improved.

According to Sunyoto and Putri (2016) the formulation of marketing strategies is based on thorough analysis of the influence of external and internal environmental factors of the company which are the main elements of marketing. The main elements of marketing can be classified into three elements, namely elements of competitive strategy, elements of marketing tactics and elements of marketing value. The competitive strategy elements can be grouped into three, namely segmentation, market targeting positioning. The second element is the element of marketing tactics which consists of two elements of marketing tactics, namely differentiation and marketing mix. The third element is the element of marketing value that can be grouped into three, namely brand, service, and process.

Therefore, with the increasing use of the internet among the society, this forces to search marketing strategy with e-commerce to be able to attract consumers to the online site and be able to compete excellently with other sites. Internet users usually tend to visit sites that are in the top of the search page, because they are considered more relevant to what users mean (Rehman et al., 2013).

To get traffic from search engines, it requires support for the processing of

Search Engine Optimization web as stated by Kharim (2015) that Search Engine Optimization is an internet marketing strategy that is widely used to increase the volume and quality of customer traffic to a company's website through search engine. SEO is an Internet marketing strategy that is widely used to increase the volume and quality of customer traffic to a company's website through search engines to explore the importance and benefit in marketing as well as to examine the impact of the SEO dimension on online advertising (Spais, 2010).

#### E-Commerce

The rapid development of information and communication technology or that is known as Information and Communication Technology (ICT) and the internet has penetrated various fields of life, including business and commerce (Fensel, 2001). According to Shahriari et al. (2015) Electronic commerce, commonly known as E-commerce, is trading products or services using computer networks, such as the internet. This is stated by the existence of ICT and the internet, the marketing and sales process can be carried out at any time without being bound by space and time (Jinling and Chang, 2009).

The application electronic of commerce (e-commerce) has facilitated healthy business relationships between producers and consumers by adjusting new functions for business transactions that provide reliable support with technology features in effort to increase market expectations in various consumers and assess higher e-commerce capabilities compared to conventional transactions (Ahmed et al., 2011). Liu and Arnett (2000) their research describe business organizations and web developers must actively to find ways to improve the information and quality of services provided through websites and to form serviceoriented concepts for both pre-sales and after-sales stages to provide high-quality services and high-quality information.

### **Soft System Methodology**

The soft system methodology was first developed in 1970 by Peter Checkland and his colleagues at Lancaster University, England (Mehregan et.al 2011). Soft system methodology (SSM) is an approach to dealing with problematic, messy situations of all kinds in action-oriented inquiry into problem situations where users learn from finding out about situations, to take action to improve them (Checkland and poulter, 2006). Learning arises through an organized process in which the situation is explored using a set of directed action model (each built to summarize a worldview) as intellectual devices or tools to inform and to arrange structure discussion about the situation and how it can be improved as a system approach used for analysis and problem solving in complicated and messy situations (Magsood et al, 2011).

The SSM view has full complexity paradigm where all system are focused on the concept of human activity, namely a real perspective of human being that has unstructured and complicated nature by analyzing deeply as an activity that has the intention to obtain output that can improve the problematic situation and conditions (Hardjosoekarto, 2012). Through modeling process can help an individual or group in the interaction of various elements recognize what causes problems in their system so that they can explain their goals and then design an activity system to achieve these goals using the soft system methodology (SSM) starting by describing the conditions that occur in this point for later will be illustrated in rich picture (Sriwana et al, 2012).

Hardjosoekarto (2012) explains that the main model made in SSM is the conceptual model of the relevant human activity system, namely this model is not a representation of the real world, however duplication or abstraction of an activity system that has a meaning that is relevant to real-world situation that is considered problematic. The standard cycle in the SSM process consists of 7 (seven) stages, namely:

1) problem situation considered problematic, 2) Problem Situation Expressed, 3) Root definition of relevant purposeful activity System, 4) Conceptual Models of the system named in the root definition, 5) Comparing the models with the real world. 6) Changes systematically desirable, Culturally Feasible. and 7) Action to improve the situation.

### **MATERIALS & METHODS**

This research was conducted using 7 stages of the soft system methodology (SSM), namely the first stage is problem situation considered problematic to define the problem that occurs. The second stage is problem situation expressed by putting a detailed picture of the problem through rich picture. The third stage is root definition of relevant purposeful activity system by analyzing PQR, CATWOE and criteria 3E, the fourth stage is conceptual models of the system named in the root definition, the fifth stage is comparing the models with the real world. The sixth stage is changes systematically desirable, culturally feasible by producing the formulation of action suggestions for improvement, refinement and change the situation of the real field that is desired. Furthermore, the seventh stage which is the last stage, is the stage of action improve the situation implementation result of the formulation of action steps as produced in the desired analysis results.

### **RESULT**

# Stage 1: Problem Situation Considered Problematic

The process of finding out in this first stage is done using a situation approach that occurs in the object of research. The first stage of the research process of Soft System Methodology (SSM), is taken based on the results of field observations that occurs, which can be identified by looking at changes in marketing styles other than conventional marketing, marketers are faced with online marketing or often referred to as e-commerce in managing the sale of herbal

products in Indonesia. This is one example of the affected part in the form of digital marketing.

Competition on digital sales has a greater capacity than conventional sales because the ease of marketers is not face to face with consumers and the number of sellers that can be chosen by consumers in making purchasing decisions on similar products in other online sellers that are global so that competition business between herbal products that are the same or different is getting higher both offline and marketing. There is competition due to the large number of herbal products on the market and Tingu products which are still new herbal products so that the promotion or advertising activities intensively need to be carried out by marketers of Tinqu products to obtain market with wide range and is known by most people or herbal medicinal consumers.

The idea of increasing sales in online sales is needed on Tinqu herbal products as a means of success in selling herbal medicines that have a fast expiration period. This makes the seller must have marketing techniques to gain market share, namely by having communication, performance skills and being able to learn about consumer needs, both product knowledge and healthy knowledge. Similarly in the case of conventional marketing, online marketing as a seller must also have supportive skills to be able to provide attractive value to buyers. The state of the situation problems that occur in the internal environment affect the course of online marketing of marketed products.

In the analysis of this situation, the focus is on marketing herbal products by herbal industry entrepreneurs who have begun to be highly competitive and market oriented as well as influenced development of marketing models as in this research discussing the marketing of Tinqu products. CV. Karya Tunas Mandiri as the manager of herbal products with the Tinqu brand product seeks to increase sales in the e-commerce marketing model. The

problems in the business world cover many aspects, starting from many competitors of similar products but with different brands or products that differ in brand and content, but have efficacy and uses that are almost the same as Tinqu products. In the marketing process of Tinqu products, it also uses internet facilities to market its products. Most marketers of herbal products have taken a lot of marketing online as well as marketers of Tinqu products by using highly developed social media facilities that can be relied upon as a place of promotion for each agent to get consumers.

The most important the competition of e-commerce business is how much our product or website can be recognized by the search engine system, the ease of access to find information becomes challenge in itself to introduce or market the products that is sold. Judging from the structural components of the application of the website on Tinqu products, presenting a very simple site appearance, the category of e-commerce website implementation is very less than the composition structure of the applied website.

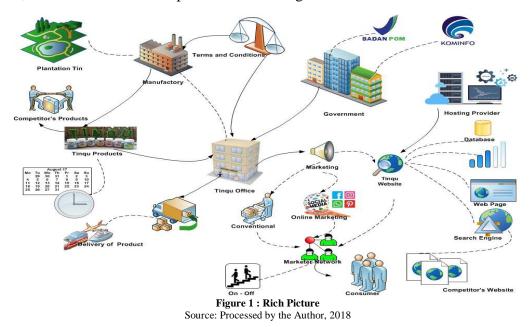
### **Stage 2: Problem Situation Expressed**

From the problem of the process of finding out the problematic real world situation, it can be stated in the problematic

problem as the second stage process of the Soft System Methodology (SSM). Analysis of the description of the problem situation, namely the increasing use of the internet as a new media in marketing that is very rapidly developing makes marketers have to develop new strategies in marketing strategies.

The process of developing competent website begins with analyzing the state of the activity model carried out by exploring the problem starting recognizing the situation to developing a marketing strategy system. In the analysis of three parties that play an important role in relation to the situation being studied, the client as the party acting as consumers of herbal medicinal products and other herbal medicinal consumers as the parties affected by the action as the main goal of improving the situation that will be done.

The practitioner conducts study, which is looking at a problematic situation and has suggestions of improvement for the problematic situation system which is faced. Furthermore, the issue owner in this study position is Tinqu product owner who acts as a party that has the intention or will and the party that takes action. The problems poured into Rich Picture based on the structure of the problems that occur can be seen in Figure 1.



### **Stage 3: Description of Root Definition**

Description of Root Definition as the third stage of this research, namely the use of all soft system methods, Soft System Methodology (SSM) that developed by Peter Checkland (2006), has a paradigm view of full complexity where all systems focus on the concept of human activity which has an unstructured and complicated

nature by analyzing deeply the activity that has the intention to obtain output that can improve the problematic situation and conditions. The pouring of the problems that occur is enriched with the description of root definition as the third step of the stages of this methodology. Table 1 is an activity element at the stage of selecting and naming the relevant human activity system.

**Table 1: Research Activity Elements** 

ELEMEN	PIHAK			
Pihak yang mempunyai niat atau kehendak (intention)	Produsen / owner: Niat untuk meningkatkan produksi			
	Penjual: Niat untuk mendapatkan pangsa pasar online			
	Produsen: Membuat variasi produk ekstrak buah tin			
Pihak yang melakukan tindakan (take action)	Penjual: Membuat situs web dan menjual produk.			
	Penjual terbagi dari setelah owner yang memiliki Tingkatan seperti Distributor dan Agen			
	Konsumen : Melakukan kunjungan Web			
	Produsen/Owner: Mendapatkan peningkatan Penjualan dan Branding			
Pihak yang terkena dampak dari tindakan	Penjual / Agen : Mendapatkan Transaksi			
	Konsumen : Memperoleh barang yang diinginkannya			
Tempat dimana tindakan di lakukan	Online, Internet Website			
	Kontrak pihak hosting dan domain, peraturan e- commerce, Cyber crime			
Kendala terkait dengan tempat dan lingkungan dari tempat ini	persaingan e-commerce produk lain yang memiliki persamaan manfaat produk Tinqu,			
Pihak yang dapat menghentikan di lakukannya tindakan itu	Perusahaan hosting, manajemen konten, index pada search engine (Google)			

Source: Processed by the Author, 2018

Table 1 illustrates the element of activity that has a mean in research on Tinqu herbal products. Based on the table data can be formulated actions for all elements or parties who have activities that have intention in the improvement system that will be carried out in this research. A website system owned and operated by Tinqu.com, for all members of the Tinqu product marketer network with an online system (P) by providing access or contact info according to regional representatives managed in a website that uses Search

Engine Optimization techniques (Q), to increase the value of Tinqu product brand and increase sales traffic according to the visitor's request area (R) by producing transformations from less good to good (Transformations) and can identify why this is happening (weltanschauung), who wants the transformation to occur (Owners) and who gets the benefit or victim of the situation (Customers) and who does the transformation (Actors) and what resources support it (Environmental Constraint).

Table 2 : CATWOE					
Costumer	: Online users include teenagers, adults and old people.				
Actors	: Owner (Distributor, Agent, Reseller).				
Iransformation	: A business process of implementing an online system marketing form on a single website that contains Tinqu products specifically to introduce about the superiorities herbal products Tinqu brand and to make the whole element finding out and getting the attention of incoming users, to make transactions and to get real benefits so that it becomes one of the goals of herbal products that are interested and become loyal consumers.				
	Concrete Transformation :				
	Visitors haven't known Tinqu products, visitors have already known Tinqu products, visitors see the visitor's website to make a transaction (become a consumer).				
WorldView	: How about the web and keywords related to Tinqu herbal products that will be easily recognized and indexed on the search engine system of Google. The implementation of online marketing activities by all Tinqu product marketers in the network registered on the site to build a supplier network that is equally distributed in all representatives throughout the region.				
Owner	: Network owner / Website owner.				
Enviromental Contraint	: Human Resources who must be demanded to understand online marketing; The number of websites that sell the same product, has an impact on				
	the ranking on the website and it is a challenge to create a web design and to choose unique keywords that are still related to the product. So, how to choose keywords that are unique but still related to Tinqu products;				
	The number of larger e-commerce websites;				
	The number of individual sales sites however has malicious intent to falsify or commit fraud online at Tinqu products;				
	The number of herbal products that are similar and have the same properties in each product that are offered.				

Source: Processed by the Author, 2018

### **Stage 4 : Conceptual Model**

The conceptual model is a model relating the description of activity system that are relevant to the related elements. The Conceptual Model includes the activity of the fourth stage of the research process on the Soft System Methodology (SSM) made based on root definition. This conceptual model is concerned with building what the system must do from the human activity system. The conceptual model can be seen in Figure 2.

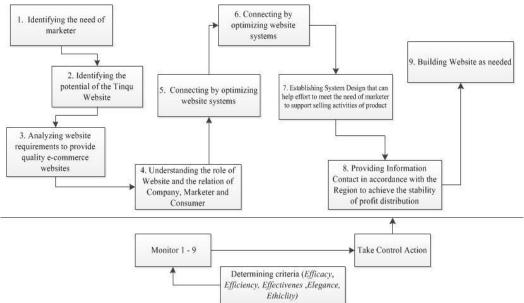


Figure 2 : Application of the Conceptual Model System of the Soft System Methodology
Source: Processed by the Author, 2018

The criteria for measuring the performance of the activity system in the CATWOE analysis above are Efficacy, Efficiency, Effectiveness, Elegance and Ethicality. Efficacy contains the

transformation process criteria from an activity system designed to have meaning and can produce in the process of introducing Tinqu products by expanding market share with an online system to

generate sales. The second is measuring Efficiency, this being a criterion of the transformation process carried out with minimal use of resources with the online marketing model and integrated in one web system for several marketers who are in the network to reduce marketing costs such as leasing sales places in expanding market reach.

Furthermore, the third one is about measuring Effectiveness, as a criterion for the transformation process helps to achieve higher results than conventional marketing with the size of products that haven't had a brand or name. In this process step can

accelerate the formation of product value in the society through its types of products and service systems, Elegance is the fourth measurement process as the transformation process that is done to adjust the lifestyle of people nowadays who are accustomed to using the internet and the latest measurement is **Ethicality** as transformation process which is done has the process of product offering through online and a single website that has clear and transparent info to web visitors and has complete information so that visitors can access longer on the website.

**Stage 5: Comparing the Real World and Conceptual Models** 

Table 3: Comparison of Conceptual Models with the Real World

Model Activity Conseptual	Proviso	Real World		0.+-+	Reflection of
		Device	Step	Output	Purpose
identifying the need of marketer	Establishing the structure of member marketer that is formed from list of marketer categories	Regulation  Administrator	Arranging the criteria that are determined	Being able to draw up the authority and tasks of each criterion  Distribution between marketers according to the level and range	The establishment of a clear member structure and responsibility
Identifying the potential of	Having a website that can help	Knowledge of	Providing training to	of the region.  Marketing through e-commerce	Increasing structured
ne Tinqu website marketers	marketers meet their sales targets	website management	marketers	web	sales in each region using e-commerce
Analyzing website requirements to provide quality e-commerce	Identifying the width of range region that are specified	Administrator and	Arranging policies in determining web	Setting the base price according to the area layout (Java and	The pricing that has been set motivates marketers and
ebsites		Marketer	composition	Outside Java)	balances the level of sales in the region.
Understanding the role of Website and the relation of Company, Marketer and Consumer	Developing the role of Marketer.	The regulation of administrator	Meeting the requirement of	The development of market functions in the range region of marketers in accordance with regulations.	The formation of marketers who can form a partnership level.
	Meeting the criteria and conditions specified. Mengidentifikasikan potensi yang	Partnership structure	administrator.		
Developing the role of on- going website	dapatdihasilkan pemasar.  Having insight into products.	Knowledge of Tinqu	Giving direction	Being able to increase knowledge about products	information to
Connecting by optimizing website systems	Identifying the product needs of marketers and consumers. Stock information.	Administrator	Managing the information stock of product	All actors know the stock of goods.	Being able to provide information of available stock.
Establishing System Design that can help effort to meet the need of narketer to support selling activities of product	Bridging the needs of marketers with consumers.	Social media  Web Application	Providing information and activities in the form of programs or promos and activities that are offered as support	The admin of social media or web help by being active during working hours in media management. communication.	Being able to provide information about products and markets
		13-15			
Providing Information Contact in accordance with the Region to achieve the stability of profit distribution	Establishing events  Management of marketing media support	Administrator  Marketer group	Determining the system of punishment and reward for all actors	Being able to produce marketing media according to the needs of all actors so that the target of marketing is achieved.	Obtaining improvement design that suits the needs of all actors.
	Knowing the range of each area in the distribution				
Building Website as needed	Making improvement to the design of on-going system	Web Developer	Applying SEO and analyzing the use of unique keywords and related to product.	Producing a web that has more power in the field of marketing herbal products with applying SEO and keywords on the services of the search system of Google site.	Becoming the top web reference on search engines in related product categories.

Source: Processed by the Author, 2018

designing the conceptual model, a comparative analysis of conceptual and real world models is carried out, it can be seen in Table 2 as the fifth stage, comparing the conceptual model with the real world problematic situation. Checkland and Poulter (2006) caution that this stage is not intended to assess the shortcomings of real world problematic situations compared to the "perfect" conceptual model. So, the conceptual model is an artificial tool based on a pure perspective while the real world is colored by a variety of points of view even in one person who continues to experience change, both slow change and rapid change. Conceptual models that contain logical activities that have been made then it will be done comparison.

Comparison is done to solve the problem or problem solving, so that the table for problem solving contains whether there are activities in real world, what are the measures of performance and how to solve problems. This can be seen in Table 3.

# Stage 6: Formulate corrective action suggestions (Changes Systematically Desirable, Culturally Feasible)

The desired change in the sixth stage of the Soft System Methodology (SSM) is stage of formulating of action suggestions for improvements, refinements and changes in real world situations. Determination of this change can be in the form of recommendations that are in line with research interest and problem solving interest in research or change that is done can be recommendations so that arguments are acceptable and culturally possible. CV Tunas Karya Mandiri, has not yet to play a serious role in the development of MSMEs industrial product processing and product marketing centers with the support of market participation rates that are still low due to non-optimal socialization.

The party who becomes a member of the marketer is only to know product information and stocks that are sold either as distributors or agents, meaning that marketers have not been involved in the company's internal environment. Through this analysis are the stage of formulating of action suggestions for improvements, refinements and changes in the situation of the field facts. Changes is done can be recommendations so that arguments are acceptable and culturally possible.

Checkland and Poulter (2006)suggest three aspects that are considered in making improvements, refinements changes, namely changes related structure, changes related to processes or procedures, and changes related to attitudes. Based on the conclusion of the development of the marketing model in this research, it shows a reciprocal relationship between aspects. This three reciprocal these relationship is in the form of competitiveness-based business framework. The use of technology in business development and changes in the structure of the marketing model with existing rules also need to be optimized to encourage the formation of developing businesses.

Furthermore. the suggested corrective actions mentioned above can be achieved through the development strategy of Tinqu marketing steps by using internet technology including forming teams in the digital-based marketing development establishing online marketing process, mechanisms, strengthening the role of distributors, agents and resellers, improving HR skills, strengthen product management and optimize the role of a single website owned.

Action suggestions can be done by identifying the need of marketers, clear member structure and responsibilities. The website displays all the partnership lists of distributors and agents who are members of the seller of products by adjusting the membership structure criteria and providing complete information on the effort of managing controlled member structure on a web and providing the company's reputation with the number of partnerships spread while web visitors will get information that

there are several distributors and agencies that have the same or closest area with complete information so that this will benefit consumers to make it easier to get products in their nearby area and reduce the burden of shipping costs on ordering products that are likely to increase sales potential.

CV Tunas Karya Mandiri can also try to make changes to increase structured sales in each region using e-commerce by trying to design a website by presenting all the partners that are joined, this is because Tingu product marketing does not have direct access to purchase in the center other than those already join into a marketer member structure. In product search will image display product and product information such as usability, price and choice of list of distributors who have stock items. The purchase checkout process from the consumer will be forwarded to the partner chosen by the buyer, in the form of an email or contact notification stated to continue the sales process and the partner has access to renew the stock in its owned.

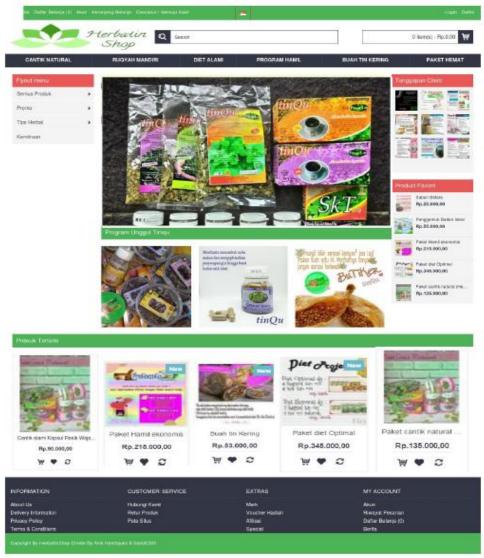
Determination of marketing mechanisms must pay attention to the structure applied by analyzing website requirements to meet the quality of a single e-commerce website. CV.Tunas Karya Mandiri provides a difference in pricing based on the sales area of the product being marketed, which is influenced by the cost of shipping costs on the additional costs of each item when the buyer checks the detected order from the origin of the product, so the price of the item will looks the same between several partners that do not exceed the more expensive costs. To correct this deficiency, the website provides an option to redirect to several marketplace links or directed towards other online media. This can also be given info on the marketplace with the link that directs the product website to get a back track that helps fulfill website visitors.

The next action that needs to be taken into account is that all the actors involved in the construction of this website understand the role of the website and the relationship of companies, marketers and consumers. Website activity controlled by a web admin from the center who can monitor all activities on the website and find out the number of web visitors to transaction activities marketers have access to the website as a promotional or sales media that can give confidence to prospective buyers consumers and visitors or consumers can see the entire presentation of the marketed product and get detailed information about each type of product. By having a website, increasingly products look more professional and easily gain trust from consumers. Because free marketplaces, they will not be able to lift up the brand of product. The professionalism of an online business is easily seen by maximizing a website.

Furthermore, in addition to the content management system, efforts to optimize the role of a single website owned by the implementation of Search Engine Optimization (SEO) on the website and can be supported by optimization of the implementation of Search Engine Marketing (SEM) as an introduction to website advertising in the marketing world product.

## **Stage 7: Action to Improve the Problem Situation**

Next for the seventh stage is implementation measure to improve, refine or change the problem situation. The basis of this step of action is the formulation of suggestions for action steps as made in the previous stage. Based on the recommended technique a website can be implemented that has a composition of content that sells as can be seen in Figure 3.



**Figure 3: Running program suggested website**Source: Processed by the Author, 2018

Furthermore, with the support of Search Engine Optimization (SEO), it provides quality web that can be identified by search engines and gives hope to advance in the first rank. In addition to Search Engine Optimization (SEO) Optimization, support for the use of Search Engine Marketing (SEM) Optimization has been suggested in actions to accelerate the first rank rate to bring more visitor traffic which will accelerate and strengthen the position of SEO naturally.

### **DISCUSSION**

The analysis of the research on this problem was carried out using the Soft System Methodology (SSM) by applying

the entire SSM stage, namely 7 Stages that can be used to define unstructured problems from Tinqu product sales problems and can be made a model implemented in the renewal system to be run.

The design of suggested corrective actions proposed can facilitate the company and marketer group members to obtain marketing assistance in the field of online marketing and product introduction to wider consumers so that obtaining product value that brings marketing members to facilitate the promotion of online systems. The design of the e-commerce website model as an online marketing media can help bridge the needs of marketers with consumers and can help marketers to meet sales targets,

distribute between marketers according to regional level and reach.

The system results designed on this website have advantages over the previous namely by implementing dynamic web system model that can identify product needs and develop the role of marketers, identifying potential marketers can produce, able to increase knowledge about the products of a marketing media according to their needs all factors so that it reaches the marketing target. Furthermore, it is supported by the use of Search Engine Optimization (SEO) optimization on Tingu website with the complete composition of content to present the quality e-commerce website with updated site content or information management that is useful for web owners to analyze and control website development managed and as a search engine access to find the website easily and can attract visitors to always come to the website so that it increases traffic and results in increased sales that occur in the website's online marketing.

### **CONCLUSION**

This research focuses on marketing techniques at CV. Tunas Karya Mandiri by using a single media website that markets Tinqu products which only execute the marketing part of Tinqu products in the field of e-commerce. Development of a website requires dependency on web developers in setting up sites with components that can adjust the development of the e-commerce world. The strategy of achieving ranking on the first page with the use of SEO that adjusts the rules of the search engines really takes a very long time to get the first ranking results by having a regular website control.

Efforts to suggest actions for supporting paid optimization, namely the use of Search Engine Marketing (SEM) in this research have not been implemented. For future research, it is recommended to add other variables for the development of research, including analyzing the influence of E-commerce Content Management

System variables such as Interface, Navigation, and Content and technical aspects in e-commerce website as an online marketing strategy instrument and the use of Search Engine Marketing (SEM) is more precise and provides further relationship that adds the quality of the action suggestion of this research.

#### REFERENCES

- Abdulghader. A. Ahmed, Dalbir S, & Ibrahim M. (2011). Potential E-Commerce Adoption Strategies For Libyan Organization. International Journal of Information and Communication Technology Research, 1(7), 321–328.
- Asosiasi Penyelenggara Jasa Internet Indonesia.2016.Infografis Penetrasi dan Perilaku Pengguna Internet Indonesia, Jakarta
- Astuti, F. B., & Syah, T. Y. R. (2017). Determinants of Patient Loyalty in West Jakarta Government Hospital, Obstetric and Gynecology Clinic. International Journal of Economics, Commerce and Management, 5(6), 714-727.
- Checkland, p. (2000). Soft System Methodology: A Thirty Year Retrospective. System Research and Behavioral Science, (17) S11-S58.
- Checkland, P. and Poulter, J. (2006).
   Learning for Action: A Short Definitive Account of Soft System Methodology and its use for Practitioner. John Willey and Sons, Ltd. Lancaster.
- Fensel, D. (2001). Product Data Integration in B2B E-commerce, IEEE Intelligent Systems.
- Franco, C. E., & Bulomine, R. S. (2016).
   Advantages And Challenges Of E-commerce Customers And Businesses: In Indian Perspective. International Journal Of Research Granthaalayah, 4(3), 7. Retrieved from
  - http://granthaalayah.com/Articles/Vol4Iss3/02\_IJRG16\_SE03\_02.pdf
- George S. Spais (2010). Search Engine Optimization (SEO) as a dynamic online promotion technique: the implications of activity theory for promotion managers. Innovative Marketing, 6(1), 7–24.
- Hardjosoekarto, S. (2012). Soft System Methodology (Metode Serba Sistem Lunak). Jakarta: Universitas Indonesia.

- Hardjosoekarto, S. (2012). Construction of Social Development Index as a Theoretical Research Practice in Action Research by Using Soft Systems Methodology. Systemic Practice and Action Research, 25(6), 493– 509. https://doi.org/10.1007/s11213-012-9237-9
- Jinling & Chang (2009). Modeling E-Commerce Website Quality with Quality Function Deployment, IEEE International Conference on Deployment e-Business Engineering. 21-23 Oct.
- Kementerian Komunikasi dan Informatika Republik Indonesia.2016. Infografis Indikator TIK Rumah Tangga dan Individu, Jakarta
- Khairani, T., & Syah, T. Y. R. (2017). Influence Of Service Quality On Loyalty Of Outpatient Mediated By Relationship Quality In East Jakarta Hospital. International Journal of Economics, Commerce and Management, 5(6), 552-564.
- Khraim, H. S. (2015). The Impact of Search Engine Optimization on Online Advertisement: The Case of Companies using E-Marketing in Jordan. American Journal of Business and Management, 4(2), 76–84.
  - https://doi.org/10.11634/216796061504676
- Kim, D. J. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents, 544–564. https://doi.org/10.1016/j.dss.2007.07.001
- Liu, C., & Arnett, K. P. (2000). Exploring the factors associated with Web site success in the context of electronic commerce. 38.
- Maqsood, T., Finegan, A. D., & Walker, D.
   H. (2011). Five Case Studies Applying Soft System Methodology to Knowledge Management. Icon.Net Pty Ltd. Melbourne, Australia: QUT Digital Repository.
- Mehregan.M.Reza, Hosseinzadesh M, & Kazemi A.(2012). An Application of Soft System Methodology. International Conference on Leadership, Technology and Innovation Management, 426-433.

- Wilson B. (2001) Soft Systems Methodology Conceptual Model Building and its Contribution, Wiley ISBN0-471-89489-3
- Philip Kotler, Kevin Lane Keller, Salah Hassan, Imad Baalbaki, H. S. (2012). Marketing Management. England, Person Education
- Rajan Varadarajan, (2018), Innovation, Innovation Strategy, and Strategic Innovation, in Rajan Varadarajan, Satish Jayachandran (ed.) Innovation and Strategy (Review of Marketing Research, Volume 15) Emerald Publishing Limited, pp.143 – 166
- Rehman, K., & Khan, M. N. A. (2013). The Foremost Guidelines for Achieving Higher Ranking in Search Results through Search Engine Optimization. International Journal of Advanced Science and Technology, 52, 101–110.
- Schiffman,L., & Kanuk, L.L. (2004). Consumer Behaviour, 8th Edition. Pearson.
- Shahriari, S., Shahriari, M., & Gheiji, S. (2015). E-Commerce and It Impacts on Global Trend and Market. International Journal Of Research -Granthaalayah, 3(4), 49–55.
  - https://doi.org/10.1080/0306731060102518
- Sriwana, I.K. et al., 2017. Sustainability improvement in cacao supply chain agroindustry. World Review of Science, Technology and Sustainable Development, 13(3).
- Sunyoto, D., & Putri, W. H. (2016). Etika Bisnis. Yogyakarta: Center for Academic Publishing Service.

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