ANALISIS PANGSA PASAR UNTUK PEMBUKAAN CABANG BARU DI CV PUSPITA JAYA MANDIRI DENGAN PENDEKATAN CUSTOMER RELATIONSHIP MANAGEMENT

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ABSTRACT

CV. Puspita Jaya Mandiri (PJM) is a company engaged in the field of trade and services, especially trading of broiler farm products. In marketing it also has customers from various regions and cities in West Java such as Cianjur, Lembang, Ciwidey, Purwakarta Cimahi, Cikalong, Subang, Tasik Malaya, Cililin, Cihampelas, Batujajar, Soreang, Majalaya, Banjaran, Margaasih and Sindangkerta.

Based on the interview with Mr. Aripin as President Director of CV Puspita Jaya Mandiri, there were problems in determining the area for opening new branches. Today the company is always able to meet the market demand for the current marketing area so that the company needs the expansion of the marketing area by opening new branches in areas with potential markets. However, companies are confused about the determination of areas that have potential markets to become new branches where if this is not resolved will have an impact on the company's delay in expanding its marketing area. Therefore we need Customer Relationship Management Information System (CRM) that can analyze potential area to be a new branch using Decision Support System (SPK) with Simple Addictive Weighting (SAW) Method in order to facilitate the company in the process of determining potential area.

Based on the Black Box test results and Beta testing this study can be concluded that this system has helped the company in determining the market share of each region for the opening of new branches.

Keywords : Customer Relationship Management Information System, Simple Addictive Weighting, Dynamic CRM, Market Share, Black Box, Beta.

PRELIMINARY

1.1 Latar Belakang

CV Puspita Jaya Mandiri (PJM) is a company engaged in the field of trade and services, especially trading of live broiler chicken and broiler clean. In marketing it also has customers from various regions and cities in West Java such as Cianjur, Lembang, Ciwidey, Purwakarta Cimahi, Cikalong, Subang, Tasikmalaya, Cililin, Cihampelas, Batujajar, Soreang, Majalaya, Banjaran, Margaasih and Sindangkerta, Customer CV Puspita Jaya Mandiri is divided into three types, namely individual customers, merchant customers and customers Bandar.

Based on the interview with the President Director of CV Puspita Jaya Mandiri, there were problems in determining the area for opening new branches. Today the company is always able to meet the market demand for the current marketing area so that the company needs the expansion of the marketing area by opening new branches in areas with potential markets. However, companies are confused about the determination of areas that have potential markets to become new branches where if this is not resolved will have an impact on the company's delay in expanding its marketing area. If the company does not take further steps on the progress of the company, then there will be a possibility that potential areas can be taken over by competitors that result in a large number of potential customers that can not be obtained by the company because there is no analysis of the potential area, It is needed a system that can analyze potential areas to be a new branch in order to facilitate the company in the process of expansion of marketing areas where order data, data needs, temperature data and competitor data into valuation factors in the process of opening new branches. Assessment factors can be dynamic depending on the needs of the company.

Selection of locations according to Buchari Alma choosing the right business location will determine the success and failure of the business in the future. It can be concluded that if the company is wrong determine the area, it will have a direct impact on the company both in the number of customers and the success and failure of CV Puspita Jaya Mandiri business in the future.

Therefore, the need for market share analysis so that companies can more easily determine the area that has a high potential, which has a lower competitor, the largest chicken needs based on customers who are outside the West Bandung regency. Customer Relationship Management (CRM). Through the implementation of CRM, the company is expected to progress rapidly with the establishment of new branches in potential areas.

So by considering and considering the problems faced by the company, it is necessary to have a system to analyze the regional market share that will become a new branch candidate with Customer Relationship Management approach.

1.2 Formulation Of The Problem

Based on the description on the background, it can be identified the problems that exist is Head of Marketing find it difficult in determining which areas have high market share and potential for the opening of new branches that have low competitiveness.

1.3 Purpose and Objectives

The purpose of this research is the analysis of marketing strategy with Customer Relationship Management in CV Puspita Jaya Mandiri. While the purpose of doing this research is to help Kabag. Marketing in determining which areas have high market share and potential to open new branches based on analysis of low-competitive market share.

2. ISI PENELITIAN

2.1 Landasan Teori

2.1.1 *Customer Relationship Management*

Customer relationship management (hereinafter abbreviated as CRM) is a core business strategy that integrates internal processes and functions with all external networks to create and realize value for consumers profitably [1].

2.1.2 Architecture *Dynamic* CRM

A study of CRM frameworks conducted by Chung-Hoon Park and Young Gul Kim, reviewed the linkage of information and marketing strategies, and created a model described in the "Framework of Dynamic-CRM". It is illustrated that the CRM phase in a framework is a series of Acquisition-Retention-Expansion processes. As an integrated CRM framework based on customer information types arranged gradually in line with the development of customer relationships.



Gambar 1 Framework of Dynamic CRM

2.1.3 Market Share

Market share can be interpreted as part of a market that is controlled by a company, or a company's sales presentation to the total sales of its biggest competitors at a certain time and place. If a company with a certain product has 35% market share, then it can be interpreted that if the total sales of similar products within a certain period of 1000 units, then the company through its products will get sales of 350 units. The amount of market share will change at any time in accordance with changes in consumer tastes, or the migration of consumer interest from one product to another [2].

There are four characteristics that influence the user in making purchases of cultural factors (culture, subculture, and social class), social factors (family groups, roles, and status), personal factors (age, occupation, economic situation, lifestyle, and personality) , And psychological factors (knowledge, motivation, beliefs, and attitudes). The decision process of buying a user passes through five stages: the introduction of needs, information search, alternative evaluation, buying decisions, and post-purchase behavior.

2.1.4 Target Marketing

Many organizations utilize target marketing by differentiating key market segments, aiming for one or two segments, and developing products and marketing programs designed specifically for each segment. Target marketing is accomplished by three main steps as shown in Figure 2.



Gambar 2 Pemasaran Sasaran

2.1.5 *Simple Additive Weight* (SAW)

Simple Additive Weight (SAW) is a weighted sum method. The basic concept of the SAW method is to find a weighted sum of performance ratings on each alternative on all criteria [7]. The SAW method requires the process of normalizing the decision matrix (X) to a scale comparable to all existing alternative ratings

SAW method recognizes the existence of 2 (two) attributes namely benefit criteria (benefit) and cost criteria (cost). The fundamental difference between these two criteria is in the selection of criteria when making a decision. The completion step in using it is:

1. Determine the alternative, ie Ai.
2. Determine the criteria to be used as a reference in Decision making, ie Cj.
3. Provide a rating rating of each alternative match On each criterion.
4. Determine the weight of preference or importance level (W) of each criterion.

$$W = [W_1 \quad W_2 \quad W_3 \quad \dots \quad W_j] \tag{2.1}$$

Membuat tabel rating kecocokan dari setiap alternatif pada setiap kriteria.

1. Create a decision matrix X formed from the match rating table of each alternative on each criterion. The value of X each alternative (Ai) on each criterion (Cj) has been determined, where, i = 1,2, ... m and j = 1,2, ... n
2. .

$$X = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1j} \\ \vdots & & & \vdots \\ x_{i1} & x_{i2} & \cdots & x_{ij} \end{bmatrix} \quad (1)$$

3. Perform normalized decision matrix X by calculating the value of the normalized performance rating (rij) of the alternative Ai on criterion Cj ·

$$r_{ij} \quad \begin{cases} \dfrac{x_{ij}}{Max_i(x_{ij})} \\ \dfrac{Min_i(x_{ij})}{x_{ij}} \end{cases} \quad (2)$$

If j is a benefit criterion
If j is the cost criterion (cost)
Information:
a. It is said that the profit criteria if the value provides benefits to decision makers, otherwise the cost criterion when raising costs for decision makers.
b. In the case of profit criteria, the value is divided by the value of each column, while for the cost criterion, the value of each column is divided by the value. The result of the rated performance value (rij) form the normalized matrix (R).

$$R = \begin{bmatrix} r_{11} & r_{12} & \cdots & r_{1j} \\ \vdots & & & \vdots \\ r_{i1} & r_{i2} & \cdots & r_{ij} \end{bmatrix} \quad (3)$$

4. The final result of the preference value (Vi) is derived from the sum of the matrix elements of the normalized matrix row (R) with the corresponding weight of preference (W) of the matrix column element W

$$V_i = \sum_{j=1}^{n} w_j r_{ij} \quad (4)$$

Greater Vi calculation results indicate that the alternative Ai is the best alternative [7]

2.1.6 Promotion

Sales promotion is any incentive that temporarily triggers behavior shown on prospect customers, sales channel members or salespeople [12]. According to French Buttle in his book entitled Customer Relationship Management Comnsept and Tools mentioned that there are various forms of sales promotion for customers, namely:
1. Sampling This form is the provision of free samples of a product. This sample can be provided in a number of ways, ie sent by mail or delivered from house to house, or made sati and packed with related items.
2. Free Trial Some companies offer products to customers on a tentative basis. If they like the product then they can take it and pay for it. Motor vehicle dealers offer test-drives to prospective givers.
3. Discounts Discounts are temporary price reductions. Discounts reduce risk and increase value for first time buyers. Discounts can be promoted in packaging or do media.
4. Coupon Coupons are like money. They can be redeemed at points of sale at the time of purchase.
5. Discount or Cashback (refund) In the consumer market, discounts and cashback are often offered in packaging and require proof of purchase.
6. Bonus pack Promotions where customers get larger volumes at a fixed price. Banded pack Banded promotional packs offer two or three (but rarely sekalli) products tied together with the package price.
8. Free premium Gift form for customers. Gifts are offered at points of sale or in packs, or require customers to send a letter or call to request a gift.

2.1.7 Customer Satisfaction

Customer satisfaction is the feeling of pleasure or disappointment one gets from comparing the perceived performance (or outcome) of the product and its expectations [3].
Several measurement methods are widely used in measuring customer satisfaction among other:
1. Complaint and suggestion system

Every customer-oriented marketer is obliged to provide the widest opportunity for customers to submit their suggestions, criticisms, opinions, ideas, feedback, and complaints. The medium used can be a suggestion box placed in strategic places (which are easily accessible or frequently passed by customers), comment cards (which can be filled directly or sent via post to the company), toll-free toll-free phone line, website, blog, Facsimile, mobile number, and others. The information gained through this method can provide new ideas and valuable input to the company, allowing it to react with responses and quickly to solve the problems that arise. When running well, this way has the potential to make a complaint as a gift, where marketers are given the opportunity to provide services to satisfy customers who complain.

2.2 Problem Analysis

The problem analysis of the current system in CV Puspita Jaya Mandiri is Head. Marketing finds it difficult to determine which areas have high market share and the potential for opening new branches with low competitiveness.

2.2.1 Analysis Framework CRM

The framework used in this research is using framework of dynamic CRM. Described that the phase of CRM in a framework in the form of a series of Acquisition-Retention-Expansion process to achieve the goal of solving the problem of

determining the area of marketing and product development.

2.2.1.1 Fase Acquisition

Acquisition, the process of acquiring a new relationship is to gain new customers that can be realized in various strategies. Keywords associated with this phase are differentiation, innovation, and convenience (convenience). Acquire is a stage that is in the acquisition at the stage of the relationship used to attract prospective customers CV Puspita Jaya Mandiri to conduct transactions with CV Puspita Jaya Mandiri. The facilities built by CV Puspita Jaya Mandiri to attract new customers are as follows:

a. Opening a new branch so that CV Puspita Jaya Mandiri get new customers. At this stage the data is processed include the data contained in the company that deals directly with customers and data obtained from outside the company. Based on interviews with the President Director, the opening of new branches is restricted to regional customers outside West Bandung Regency based on transaction data. At this stage further analysis is needed to determine the potential area for accurate opening of new branches. Here are the stages of market share analysis for opening new branches: Analisis Pangsa Pasar untuk Pembukaan Cabang Baru

The purpose of market share analysis is to know the market potential / customers in each region of the products offered by CV Puspita Jaya Mandiri. To know the market share, then done 3 stages of analysis of market segmentation, Targeting (Target Market Determination) and Positioning (Determination of Market Position):

1. Market Segmentation

a. Geographic Market Segmentation

Segmentas is done to divide the market. The Regency or City selected by the company is as follows:

i. Bogor Regency
ii. Regency of Cianjur
iii. Tasikmalaya Regency
iv. Purwakarta District
v. Garut regency

2. Case Assumption of Market Share Analysis

After preparing the required data, do the calculations for the remaining needs

= Jkeb – (JKebT + JPro)

Kab/Kota	Kebutuhan Rata-Rata Perbulan (kg)	Terpenuhi (Kg)	Rata-Rata Produksi Perbulan pesaing (kg)	Sisa Kebutuhan yang belum Terpenuhi = JKeb – (JKebT + JPro)
Kab. Bogor	50000	1250	44467	4283
Kab. Cianjur	45000	24872	20000	127
Kab. Tasikmalaya	35000	4297	25210	5493
Kab. Purwakarta	35000	8750	24740	1510
Kab. Garut	30000	1320	21500	7180

1. Market Targeting

Market Targeting is done to adjust the market share analysis recommendations that have been done in the calculation phase of the requirement with the target set by the company CV Puspita Jaya Mandiri. The intended target is the criteria that have been determined by the company where these criteria will be a benchmark for the opening of new branches. To facilitate the company in determining the area that has the best criteria, it is necessary to hold a decision-making system. The method used is Simple Additive Weight (SAW) method.

2. Case Assumptions Market Targeting

The steps taken are among others:

a. Define criteria and weights

No	Kriteria	Bobot
1	Besarnya Sisa Kebutuhan yang belum Terpenuhi	30%
2	Besarnya Rata-Rata Temperatur	20%
3	Banyaknya Pelanggan	25%
4	Banyaknya Pesaing	25%

b. Determine Benefit and Cost on predetermined criteria

No	Kriteria	*Cost*	*Benefit*
1	Besarnya Sisa Kebutuhan yang belum Terpenuhi		√
2	Besarnya Rata-Rata Temperatur		√
3	Banyaknya Pelanggan		√
4	Banyaknya Pesaing	√	

c. Collect data regarding predefined criteria

No	Kabupaten/Kota	Temperatur (Celcius)	Jumlah Pelanggan	Jumlah Pesaing	Sisa Kebutuhan yang belum terpenuhi (kg)
1	Kab. Cianjur	23	5	2	127
2	Kab. Garut	25	1	1	7180
3	Kab. Purwakarta	28.7	2	1	1510
4	Kab. Bogor	29	1	4	4283
5	Kab. Tasikmalaya	30	1	2	5493

d. Converts data into X form of matrix .

$$X = \begin{bmatrix} 23 & 5 & 2 & 7761 \\ 25 & 1 & 1 & 5680 \\ 28.7 & 2 & 1 & 4250 \\ 29 & 1 & 4 & 3765 \\ 30 & 1 & 2 & 1703 \end{bmatrix}$$

e. Perform normalized decision matrix (X) for each criterion.

$R_{11} = \frac{127}{Max(127; 7180; 1510; 4283; 5493)} = = \frac{127}{7180} = 0.018$

The value of 0.018 for the calculation of Cianjur Regency.

$R_{12} = \frac{7180}{Max(127; 7180; 1510; 4283; 5493)} = \frac{7180}{7180} = 1$

The value of 1 for the calculation of Garut Regency..

$R_{13} = \frac{1510}{Max(127; 7180; 1510; 4283; 5493)} = \frac{1510}{7180} = 0.21$

The value of 0.21 for the calculation of Purwakarta Regency..

$R_{14} = \frac{4283}{Max(127; 7180; 1510; 4283; 5493)} = \frac{4283}{7180} = 0.597$

The value of 0.765 for the calculation of Bogor Regency..

$$R_{15} = \frac{5493}{Max(127; 7180; 1510; 4283; 5493)} = \frac{5493}{7180} = 0.765$$

The value of 0.765 for the calculation of Tasikmalaya Regency.

So the conclusion of the above calculation with the criteria of the large remaining chicken needs that have not been fulfilled with the highest value found in Garut regency. After calculating with normalization of decision X matrix, then got matrix R as below.

$$R = \begin{bmatrix} 0.018 & 1 & 0.21 & 0.597 & 0.765 \\ 0.767 & 0.833 & 0.957 & 0.967 & 1 \\ 1 & 0.2 & 0.4 & 0.2 & 0.2 \\ 0.5 & 1 & 1 & 0.25 & 0.5 \end{bmatrix}$$

f. Perform the ranking process After getting the matrix R, it will be done ranking.

$V_1 = (0.30)(0.018) + (0.20)(0.767) + (0.25)(1) + (0.25)(0.5)$

$= 0.534$

The value of 0.534 for the calculation of Cianjur Regency

$V_2 = (0.30)(1) + (0.20)(0.833) + (0.25)(0.2) + (0.25)(1)$

$= 0.767$

The value of 0.767 for the calculation of Garut Regency

$V_3 = (0.30)(0.21) + (0.20)(0.957) + (0.25)(0.4) + (0.25)(1)$

$= 0.604$

The value of 0.604 for the calculation of Purwakarta Regency.

$V_4 = (0.30)(0.597) + (0.20)(0.967) + (0.25)(0.2) + (0.25)(0.25)$

$= 0.291$

The value of 0.291 for the calculation of Bogor Regency

$V_5 = (0.30)(0.765) + (0.20)(1) + (0.25)(0.2) + (0.25)(0.5)$

$= 0.605$

The value of 0.605 for the calculation of Tasikmalaya Regency.

Then the conclusion of the calculation of final ranking results, Garut regency is superior to other districts / cities with a value of 0.808.

3. Concluision Case Market Targeting

Based on the calculation phase with Simple Additive Weight (SAW) method to determine the target area of new branches of five districts in analysis such as Cianjur, Garut, Purwakarta, Bogor and Tasikmalaya. Ranking recommendations on the determination of marketing areas sorted by rank can be seen in Table.

Table 1 Results and Recommendations for Opening of New Branches

No	Kabupaten/Kota	Nilai Akhir
1	Kab. Garut	0.767
2	Kab. Tasikmalaya	0.605
3	Kab. Purwakarta	0.604
4	Kab. Cianjur	0.534
5	Kab. Bogor	0.485

2.2.1.2 Fase Retention

In this phase will be the process of improving the relationship between customers with the company or at the stage of CRM development called retain. This stage is a step that will be used to improve the relationship between the company and the customer. Here is a facility to be built in the retention phase.

2.2.1.2.1 Discount Information and Discounted Price

This facility is the company's step in paying attention to its customers by giving discounts or discounts according to the procedures contained in the company.

Case Assumption:

- Live Chicken Prices = Rp 23,500 / kg
- Purchases above 3000 kg get 1% discount

Table 2 Assumption of Discount Cases or Discounted Rates

No	Nama Pelanggan	Jumlah (Kg)	Total Harga	Diskon	Total Bayar
1	Aan	1000	1000 * 23500 = 23.500.000	-	23.500.000
2	Rahmat	3000	3000 * 23500 = 70.500.000	70.500.000 * 1 % = 705.000	70.500.000 - 705.000 = 69.795.000

Conclusion:

So, based on the above table it can be concluded that the customer named Rahmat will get a discount of 1% because it has made purchases above 3000kg.

2.2.1.3 Fase *Expansion*

Expansion stage is the phase of the last stage of dynamic CRM, in this phase will be the process of maintaining a regular customer or in the stage of CRM development called enchance. This stage is a step that will be used to maintain the regular customers against the use of existing products in CV Puspita Jaya Mandiri.

The facility provided by the company is by providing a form of criticism and advice that can be filled by the customer. Which aims to obtain information about services that have been done by the company.

2.2.2 Database Analysis

Database analysis on information system determination of marketing area and product development using Entity Relationship Diagram

(ERD). The designed ERD can be seen in Figure 3.

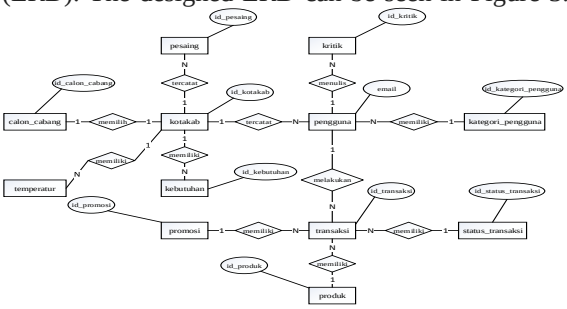


Figure 2 ERD Information System For New Branch Opening in CV PJM

2.2.3 Context Diagram

Context diagram is the highest level diagram of the DFD that describes the input or output of a system and relationships in the system with its users. Context diagram is often referred to as Level 0 DFD. Context diagram information system determination of marketing areas and product development in CV Puspita Jaya Mandiri can be seen in Figure 3.

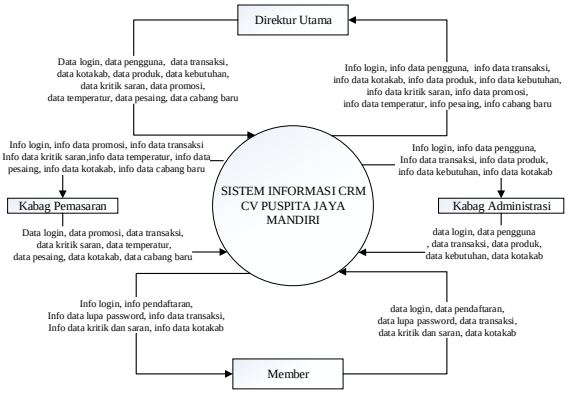
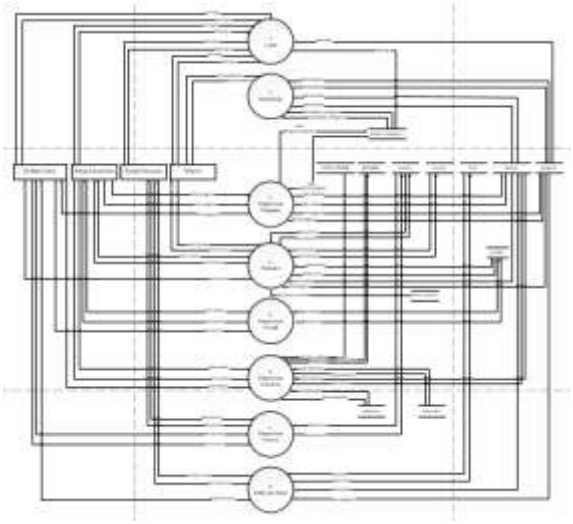


Figure 3 Context Diagram of Information Systems For New Branch Opening in CV PJM

2.2.4 Data Flow Diagram

Data flow diagram shows how the data flow describes the processes that occur in the system until the process more detail. Context diagrams such as Images can be decomposed into multiple DFD.



Gambar 2 Data Flow Diagram Level 1

2.3 System Planning

System design is the depiction, design and manufacture of sketches or arrangements of several separate elements into a unified whole.

2.3.1 Relation scheme

The relation schema describes the interconnected data between multiple data and their constraints. The scheme illustrated can be seen in Figure5.

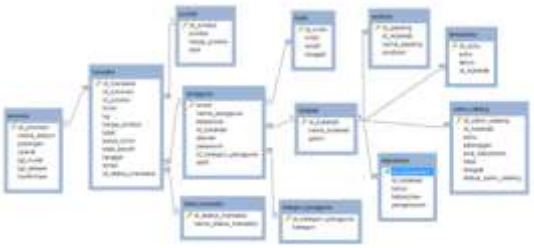


Figure 5 Relation Scheme Information System For New Branch Opening in CV PJM

2.3.2 Interface Design

Interface design is made to describe the appearance of the program that will be used by the user to interact with the system to be built. The design is made based on the interface of both input and output that will be generated when the application is implemented.

Here is the design of information system interface Opening New Branch CV Puspita Jaya Mandiri:

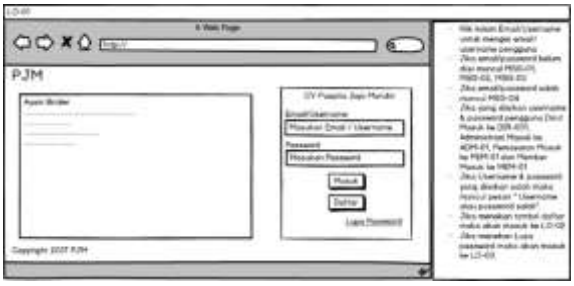


Figure 6 Login Interface Design

2.4 System Planning

Testing the system is the most important thing that aims to find errors or deficiencies in information systems tested. Testing the system intended to determine the performance of information systems that have been made in accordance with the purpose of designing information systems. Testing this system using black box testing. Black box testing focuses on the functional requirements of the software.2.4.1 Pengujian Fungsional

Functional testing (black box) focused on testing the functional requirements of information systems built. Functional testing involves how well the system performs its functions, including usage commands, data manipulation, search and business processes, end users.

2.4.2 Beta Testing

Beta testing is a test done objectively in other words this test is testing directly in the field or where the application is made implemented. Users make an assessment of the system using the method of in-depth interviews about the system has been built. From the results of these interviews it can be concluded whether the system is built as expected or not.

2.4.2.1 Beta test Scenario

Beta testing is done by conducting direct testing at the place of research by using interview techniques addressed to the President Director, Head. Administration and Head. Marketing CV Puspita Jaya Mandiri questionnaire method to customers with questions based on the purpose of the research. So the question given becomes clear and directed.

Table 4 Interview with Users of President Director

Pertanyaan	Jawaban
Bagaimana pendapat anda tentang tampilan antarmuka pada sistem informasi CRM ini?	Untuk tampilan antarmuka sistem ini terlihat simple namun nyaman untuk dilihat
Bagaimana pendapat anda tentang bahasa yang digunakan pada sistem informasi CRM ini?	Menurut saya bahasa yang digunakan sudah sesuai
Bagaimana pendapat anda tentang pengelolaan informasi – informasi yang berkaitan dengan perusahaan anda dengan adanya sistem informasi CRM berbasis *website*?	Dengan adanya website ini sangat membantu kami dalam pengelolaan data-data vang berkaitan dengan perusahaan
Bagaimana pendapat anda tentang kemudahan penggunaan sistem informasi CRM ini secara keseluruhan?	Menurut saya sebagian besar penggunaan sistem ini sangat mudah dioperasikan.

Based on user and customer answers regarding the CRM information system tested, it can be concluded that:

1. Application of interface, language and use of CRM information system application made, can be accepted by all users and customers in the environment CV Puspita Jaya Mandiri
2. Application of CRM information system created to assist the President Director in determining the area to be a new branch.
3. Management of existing transactions on the application of CRM information systems created to assist Head of Administration in storing transaction data and provide gifts for customers who are loyal to the company.
4. Managing existing promotions in CRM information system applications can assist Marketing Heads in acquiring new customers and retaining regular customers.
5. Application of CRM information systems created can facilitate companies in disseminating information about the company to attract new customers.
6. Provision of criticisms and suggestions that exist in the application of CRM information systems created can help companies in fixing any deficiencies that are not realized by the company

End

2.1 Conclusions

After doing the analysis, design, and testing. Then it can be concluded as follows:

Customer Relationship Management Information System can help Kabag. Marketing CV Puspita Jaya Mandiri in determining areas that have high market share and low competitors potentially for the opening of new branches.

2.2 Suggestions

In order for the system built to work better, should be added as follows:

The existence of additional information facilities associated with broiler farms for the general public.

DAFTAR PUSTAKA

[1] F. Buttle, Customer Relationship Management: Concepts and Tools, Bayumedia Publishing, 2007.

[2] P. Kotler and G. Armstrong, Prinsip-Prinsip Pemasaran, Bandung: Penerbit Erlangga, 2008.

[3] D. Saladin, Unsur-Unsur Inti Pemasaran dan Manajemen Pemasaran, Bandung: CV. Mandar Maju, 1996.

[4] F. Tjiptono and G. Chandra, Pemasaran Strategik Edisi 2, Yogyakarta: Penerbit Andi, 2012.

[5] Armstrong and Kotler, Dasar-Dasar Pemasaran, Jilid 1, Edisi Kesembila, Jakarta: Penerbit PT. Indeks Gramedia, 2003.

[6] Sudjana, Metoda Statistika, Bandung: Penerbit Tarsito, 1996.

[7] Sugiyono, METODE PENELITIAN KUANTITATIF, KUALITATIF DAN R&D, Bandung: ALFABETA, 2014.

[8] R. A. S. and M. Shalahuddin, Rekayasa Perangkat Lunak Terstruktur dan Berorientasi Objek, Bandung: Informatika, 2015.

[9] T. Suryana, J. Sarwono, 2007, " E-commerce Menggunakan PHP dan MySQL Edisi Pertama", Graha Ilmu Yogyakarta