UMRAH AND TOURISM PACKAGE MANAGEMENT WITH CUSTOMER RELATIONSHIP MANAGEMENT APPROACH AT PT. LINTAS DUNIA

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ABSTRACT

PT. Lintas Dunia is a company engaged in the field of Tour and Travel which one of its functions is to support tourism and provide convenience and public satisfaction with tour and travel services. The cause of complaints from customers regarding the sights offered by the company does not match the needs of customer packages in PT. Lintas Dunia is still taking tour packages from other trips, so the price of the tour packages sold more expensive.

Customer Relationship Management (CRM) is a business strategy consisting of software and services designed to increase profits, revenue and customer satisfaction. In the dynamic CRM framework there are stages of Acquisition, Retention and Expansion. In the retention stage there is Market Basket Analysis (MBA) method to recommend tourist attractions in a tour package and Activity Based Costing (ABC) method to determine the price of tour package.

Based on the analysis and test results that have been done, it can be concluded that the system created can run in accordance with its purpose, which can help the marketing manager in determining the sights based on customer needs. Then help the marketing manager in determining the price of the tour package in accordance with tourist attractions and accommodations in accordance with the customer.

Keywords : Lintas Dunia, *Customer Relationship Management*, Tour and Travel, product recommendation, pricing.

1. INTRODUCTION

PT. Lintas Dunia is a company engaged in the world of tourism industry on Tour and Travel services which is one of its functions to support tourism and provide convenience and public satisfaction of Tour and Travel services. In the implementation of PT. Lintas Dunia work professionally covers a large area with excellent service as the main objective of PT. Lintas Dunia.

Based on the interview with Mr. Herman as the marketing manager at PT. Lintas Dunia in managing relationships with customers, marketing managers often get complaints from customers about the sights offered by the company does not match the needs of customers. Due to tour package in PT. Lintas Dunia still take the tour package from other travel so the price of tour packages sold more expensive due to selling other travel tour packages. Consequently, customer trust is reduced and customers are reluctant to use PT. Lintas Dunia product. In order for customers to return using tour services offered by PT. Lintas Dunia then it takes a system that can recommend tourist attractions. So that customers do not have difficulty in choosing a tourist spot in accordance with customer needs and to determine the tourist attractions for umrah plus be done through a questionnaire to customers who had never Umrah or Umrah before. The next problem is the marketing manager has difficulty in determining the price of tour packages in accordance with the needs of new prospects because new customers do not know the package and price of tours owned by PT. Lintas Dunia so that the pricing for the group.

Therefore, by looking at the conditions and problems at PT. Lintas Dunia needs a media that is a system that can analyze customer needs in accordance with customer data using The concept of Customer Relationship Management (CRM). The existence of Customer Relationship Management (CRM) application based on website is expected to be the company's solution in managing the company's business management and can be used to analyze the needs of its customers.

Customer Relationship Management (CRM) is a business strategy consisting of software and services designed to increase profits, revenue and customer satisfaction [1]. The basic concept of CRM begins with knowing, knowing and exploring what is needed and expected by customers, so that companies can more easily to realize what is needed by customers. It is very useful to create a good impression of the company with a happy treatment of customers whose results are the loyalty that customers give to the company. The type of CRM to be used in this research is Analitycal CRM. Decision-making with this research is done after going through the process of analysis, modeling and evaluation of stored data to produce a favorable relationship between the company and the customer [2]. The framework used

in this research is Dynamic CRM. This framework describes the stages of CRM development or implementation that focus on three information, ie customer information, customer information and information by customers.

Based on the background that has been described above, then drawn the conclusion to conduct research as well as raising this topic as a thesis writing entitled "UMRAH AND TOURISM PACKAGE MANAGEMENT WITH CUSTOMER RELATIONSHIP MANAGEMENT APPROACH AT PT. LINTAS DUNIA".

2. RESEARCH CONTENTS

2.1 Tour Package Determination Procedure

The procedure of determining tour packages is the processes that occur when the marketing division determines the tour package. This process involves the marketing division and the general manager.

2.1.1 CRM Framework Analysis

CRM framework analysis aims to analyze the framework to be used on CRM systems that will be built so that CRM features can be built quickly and precisely. The framework to be built is a framework of Dynamic CRM which describes a series of stages on the development or application of CRM can be seen in Figure 1.

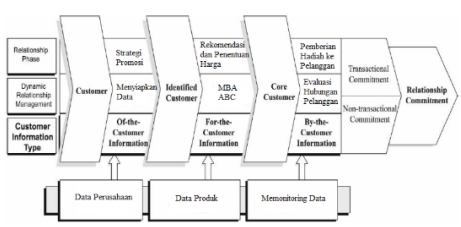


Figure 1. Dynamic CRM Framework

CRM system to be built in this study using Analytical CRM. Therefore the process undertaken to achieve commitment with customers focuses on Dynamic Relationship Management.

2.1.1.1 Relationship Phase

Relationship Phase or stage of customer relationship consists of three stages, namely Acquisition, Retention, and Expansion. Here is an explanation of the three stages:

1. Acquisition Phase

Acquisition phase is a stage used to attract prospective customers of PT. Cross the World to join in cooperation with the company. At this stage PT. Cross the World can do business strategy with Direct Response Advertising strategy, which is a combination of advertising and promotion that will form a massive promotion. For example: "Umrah Together Cross the World, 5 free 1".

2. Retention Phase

Retention Phase is the stage used to improve relationships with customers so that customers are more loyal to the company. At the retention stage will be made recommendations of tourist attractions offered to customers by using the method of MBA (Market Basket Analysis). Market Basket Analysis will analyze buying habits from consumers by finding associations between different products that consumers place in a shopping basket. Market Basket Analysis itself is an implementation of the Association Rules.

Then the company does not have facilities to facilitate employees in determining the price of tour packages to prospective customers who want to determine the sights in accordance with the needs of prospective customers. So the required process by using ABC (Activity Based Costing) method. Activity Based Costing will calculate the cost of a product or service, an activity that consumes resources and products or services that consume the activity. Thus the ABC system facilitates accurate cost calculation of cost objects and increases the effectiveness of management decision making.

3. Expansion Phase

Expansion Phase is the stage used to keep customers constantly using the Products offered by the company. At this stage building a mutually beneficial relationship is essential to maintain long-term relationships between customers and companies. In the implementation of PT. Lintas Dunia strategy maximizes customer rights that will increase customer value. The strategy is to reward customers with certain requirements, for example if there are customers who often use umrah from Lintas Dunia or bring new customers to Lintas Dunia will be rewarded in the form of money or free umrah.

2.1.1.2 Dynamic Relationship Management

Dynamic Relationship Management consists of 3 stages, namely relationship initiation, value analysis, and relationship positioning. Here is an explanation of these three stages:

1. Relationship Initation

At this stage, the marketing division at PT. Lintas Dunia Preparing the data needed for the recommendation process that is in the form of tour data and for the determination of the price that is in the form of tourist spot data and product sales transactions conducted by customers for 1 year in 2016.

2. Relationship Value Analysis

At this stage the process of analyzing and determining the value of each product relationship will be recommended to customers, so that customers who get recommendations in accordance with

customer needs. And at this stage also carried out the process of analyzing and determining the price to prospective new customers who want to determine the sights seen from product sales transactions conducted by customers for 1 year 2016.

The recommendation stage is done because the result of interview with marketing manager who has made observation, the customer still not satisfied with the product offered by the company by criticizing the products that have been offered by the company by visiting the office of PT. Lintas Dunia or by doing communication via telephone. Therefore, the product recommendation process using the method of MBA (Market Basket Analisys).

Determining the price of products to prospective customers that determine the tourist attractions so that companies need to know the sights and budget of prospective customers considering the limitations of resources owned to manage all the packages and customers. So companies need to determine the price of the desired tour package by prospective customers by using ABC (Activity Based Costing) method.

a. Analysis of the Association Rules Method

Association Rules Method or also known as basket market analisys used to find the associative rules of a combination of items or goods. Such association rules can be used to find combinations of items or items normally purchased by a customer using an a priori algorithm. The results of determining the combination of items or goods used as a reference marketing manager in determining product recommendations that will be recommended to customers. If there is a new item that will be used by marketing manager will be added to the package that has been recommended previously based on location. In this stage there are steps that must be done. The stages are described in Figure 2 below:

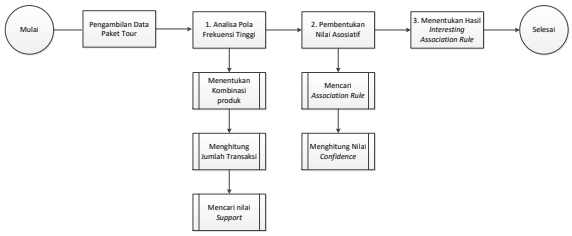


Figure 2. Stages of Market Basket Analysis Method (MBA)

Adapun deskripsi dari tahapan gambar diatas adalah sebagai berikut:

1) High Frequency Pattern Analysis

This stage looks for combinations of items that meet the minimum requirements of the support values in the database, which are formulated in reference to chapter two. The data used is the data package sold in January 2016. Here is the tour package data can be seen in the table below.

Table 1. Data for January 2016

Transaction ID	Sold Tour
CTB1	Gedung Sate, Cihampelas, Alun-alun, Gedung Merdeka, Tangkuban Parahu
CTB2	Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey
CTB3	Gedung Sate, Floating Market, Tangkuban Parahu
CTB4	Alun-alun, Gedung Merdeka, Tangkuban Parahu, Maribaya
CTB5	Gedung Sate, Alun-alun, Gedung Merdeka, Cihampelas, Farmhouse, Ciwidey
Jakarta1	Ancol, Dufan, Sea World
Jakarta2	Ancol, Dufan
Jakarta3	TMII, Museum Keong Mas, Snow Bay
Jakarta4	TMII, Snow Bay
Jogja1	Pantai Indrayanti, Candi Prambanan, Candi Borobudur, Malioboro, Keraton, Tamansari
Jogja2	Pantai Indrayanti, Candi Borobudur, Gereja ayam, Tamansari, Keraton, Malioboro, Kalibiru, De Mata De Arca
Pangandaran1	Pantai Pangandaran, Batu Karas, Green Canyon
Pangandaran2	Pantai Pangandaran, Batu Karas, Green Canyon
Pangandaran3	Pantai Pangandaran, Batu Karas, Green Canyon
Pangandaran4	Pantai Pangandaran, Cagar alam, Waterpark Pangandaran
Pangandaran5	Pantai Pangandaran, Cagar alam, Citumang
Pangandaran6	Pantai Pangandaran, Cagar alam, Citumang

Then from the transaction data we can determine the minimum value of support that will be the reference for the combination pattern. The combination pattern that meets the transaction data can be seen in the following table:

Table 2. Frequent Pattern from Support (C1)

Product Item	Transaction Total	Support
Gedung Sate	4	80%
Cihampelas	2	40%
Alun-alun Bandung	4	80%
Gedung Merdeka Bandung	4	80%
Farmhouse	1	20%
Flating Market	1	20%
Tangkuban Parahu	3	60%
Ciwidey	2	40%

Maribaya	1	20%
Ancol	2	50%
Dufan	2	50%
Sea World	1	25%
TMII	2	50%
Museum Keong Mas	1	25%
Snow Bay	2	50%
Pantai Indrayanti	2	100%
Candi Prambanan	1	50%
Candi Borobudur	2	100%
Malioboro	2	100%
Keraton	2	100%
Tamansari	2	100%
Gereja Ayam	1	50%
De Mata De Arca	1	50%
Kalibiru	1	50%
Pantai Pangandaran	6	100%
Batu Karas	3	50%
Green Canyon	3	50%
Cagar Alam	3	50%
Waterpark Pangandaran	1	16%
Citumang	2	33%

Then select k-itemset from support that meets the minimum support, then choose k-itemset as high frequent pattern.

Table 3. High Frequent Pattern (L1)

Product Item	Transaction Total	Support
Gedung Sate	4	80%
Cihampelas	2	40%
Alun-alun Bandung	4	80%
Gedung Merdeka Bandung	4	80%
Tangkuban Parahu	3	60%
Ciwidey	2	40%
Ancol	2	50%
Dufan	2	50%
TMII	2	50%
Snow Bay	2	50%
Pantai Indrayanti	2	100%
Candi Borobudur	2	100%
Malioboro	2	100%
Keraton	2	100%
Tamansari	2	100%
Pantai Pangandaran	6	100%
Batu Karas	3	50%
Green Canyon	3	50%
Cagar Alam	3	50%
Citumang	2	33%

In the previous iteration the frequent pattern of support has been obtained from 1-itemset, for 2-itemset generate k-itemset from k-item iteration earlier, by combining the k-itemset. C2 is the itemset of the k-itemset combination from the previous iteration, after obtaining the k-itemset, calculate each frequent item and scan the database and get frequent items from support.

Table 4. Combination of k-itemset (C2)

Product Item	Transaction Total	Support
Gedung Sate, Cihampelas	1	20%
Gedung Sate, Alun-alun Bandung	3	60%
Gedung Sate, Gedung Merdeka	3	60%
Gedung Sate, Tangkuban Parahu	2	40%
Gedung Sate, Ciwidey	2	40%
Cihampelas, Alun-alun Bandung	2	40%
Cihampelas, Gedung Merdeka	2	40%
Cihampelas, Tangkuban Parahu	1	20%
Cihampelas, Ciwidey	1	20%
Alun-alun, Gedung Merdeka	4	80%
Alun-alun, Tangkuban Parahu	2	40%
Alun-alun, Ciwidey	2	40%
Gedung Merdeka, Tangkuban Parahu	2	40%
Gedung Merdeka, Ciwidey	2	40%
Tangkuban Parahu, Ciwidey	0	0
Ancol, Dufan	2	50%
Ancol, TMII	0	0
Ancol, Snow bay	0	0
Dufan, TMII	0	0
Dufan, Snow bay	0	0
TMII, Snow bay	2	50%
Pantai Indrayanti, Candi Borobudur	2	100%
Pantai Indrayanti, Malioboro	2	100%
Pantai Indrayanti, Keraton	2	100%
Pantai Indrayanti, Tamansari	2	100%
Candi Borobudur, Malioboro	2	100%
Candi Borobudur, Keraton	2	100%
Candi Borobudur, Tanamsari	2	100%
Malioboro, Keraton	2	100%
Malioboro, Tamansari	2	100%
Keraton, Tamansari	2	100%

Pantai Pangandaran, Batu Karas	3	50%
Pantai Pangandaran, Green Canyon	3	50%
Pantai Pangandaran, Cagar Alam	3	50%
Pantai Pangandaran, Citumang	2	33%
Batu Karas, Green Canyon	3	50%
Batu Karas, Cagar Alam	0	0
Batu Karas, Citumang	0	0
Green Canyon, Cagar Alam	0	0
Green Canyon, Citumang	0	0
Cagar Alam, Citumang	2	33%

Development of Algorithm a priori by trimming k-itemset by counting support from itemset, so trim more efficient memory. The following table high frequency pattern above with minimum support for 2-itemset.

Table 5. High Frequent Pattern (L2)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun Bandung	3	60%
Gedung Sate, Gedung Merdeka	3	60%
Gedung Sate, Tangkuban Parahu	2	40%
Gedung Sate, Ciwidey	2	40%
Cihampelas, Alun-alun Bandung	2	40%
Cihampelas, Gedung Merdeka	2	40%
Alun-alun, Gedung Merdeka	4	80%
Alun-alun, Tangkuban Parahu	2	40%
Alun-alun, Ciwidey	2	40%
Gedung Merdeka, Tangkuban Parahu	2	40%
Gedung Merdeka, Ciwidey	2	40%
Ancol, Dufan	2	50%
TMII, Snow bay	2	50%
Pantai Indrayanti, Candi Borobudur	2	100%
Pantai Indrayanti, Malioboro	2	100%
Pantai Indrayanti, Keraton	2	100%
Pantai Indrayanti, Tamansari	2	100%
Candi Borobudur, Malioboro	2	100%
Candi Borobudur, Keraton	2	100%
Candi Borobudur, Tanamsari	2	100%
Malioboro, Keraton	2	100%
Malioboro, Tamansari	2	100%
Keraton, Tamansari	2	100%
Pantai Pangandaran, Batu Karas	3	50%
Pantai Pangandaran, Green Canyon	3	50%
Pantai Pangandaran, Cagar Alam	3	50%
Pantai Pangandaran, Citumang	2	33%
Batu Karas, Green Canyon	3	50%
Cagar Alam, Citumang	2	33%

Table 6. Combination of k-itemset (C3)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun , Gedung Merdeka	3	60%
Gedung Sate, Alun-alun, Tangkuban Parahu	1	20%
Gedung Sate, Alun-alun, Ciwidey	2	40%
Cihampelas, Alun-alun, Gedung Merdeka	2	40%
Alun-alun, Gedung Merdeka, Tangkuban Parahu	2	40%
Alun-alun, Gedung Merdeka, Ciwidey	2	40%
Gedung Merdeka, Tangkuban Parahu, Ciwidey	0	0
Ancol, Dufan, TMII	0	0
Ancol, Dufan, Snow bay	0	0
Pantai Indrayanti, Candi Borobudur, Malioboro	2	100%
Pantai Indrayanti, Candi Borobudur, Keraton	2	100%
Pantai Indrayanti, Candi Borobudur, Tamansari	2	100%

Candi Borobudur, Malioboro, Keraton	2	100%
Candi Borobudur, Malioboro, Tamansari	2	100%
Malioboro, Keraton, Tamansari	2	100%
Pangandaran, Batu Karas, Green Canyon	3	50%
Pangandaran, Batu Karas, Cagar Alam	0	0
Pangandaran, Batu Karas, Citumang	0	0
Batu Karas, Green Canyon, Cagar Alam	0	0
Batu Karas, Green Canyon, Citumang	0	0

Table 7. Itemset for high frequent pattern (L3)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun , Gedung Merdeka	3	60%
Gedung Sate, Alun-alun, Ciwidey	2	40%
Cihampelas, Alun-alun, Gedung Merdeka	2	40%
Alun-alun, Gedung Merdeka, Tangkuban Parahu	2	40%
Alun-alun, Gedung Merdeka, Ciwidey	2	40%
Pantai Indrayanti, Candi Borobudur, Malioboro	2	100%
Pantai Indrayanti, Candi Borobudur, Keraton	2	100%
Pantai Indrayanti, Candi Borobudur, Tamansari	2	100%
Candi Borobudur, Malioboro, Keraton	2	100%
Candi Borobudur, Malioboro, Tamansari	2	100%
Malioboro, Keraton, Tamansari	2	100%
Pangandaran, Batu Karas, Green Canyon	3	50%

Table 8. Combination of 3 itemsets for k-itemset (C4)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun , Gedung Merdeka, Ciwidey	2	60%
Cihampelas, Alun-alun, Gedung Merdeka, Gedung Sate	2	40%
Alun-alun, Gedung Merdeka, Tangkuban Parahu, Ciwidey	0	0
Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton	2	100%
Pantai Indrayanti, Candi Borobudur, Malioboro, Tamansari	2	100%
Candi Borobudur, Malioboro, Keraton, Tamansari	2	100%

Table 9. Itemset for high frequent pattern (L4)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun , Gedung Merdeka, Ciwidey	2	40%
Cihampelas, Alun-alun, Gedung Merdeka, Gedung Sate	2	40%
Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton	2	100%
Pantai Indrayanti, Candi Borobudur, Malioboro, Tamansari	2	100%
Candi Borobudur, Malioboro, Keraton, Tamansari	2	100%

Table 10. Combination of 4 itemsets for k-itemset (C5)

Product Item	Transaction Total	Support
Gedung Sate, Alun-alun , Gedung Merdeka, Ciwidey, Cihampelas	1	20%
Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton, Tamansari	2	100%

No more combinations can be formed for the next k-itemset, the stop process, the high frequent pattern found is "Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey, Cihampelas" for Bandung city tour packages and "Indrayanti Beach, Borobudur Temple, Malioboro, Keraton, Tamansari "for Jogja tour packages. Thus formed association rules that meet the minimum requirements by calculating the condifence association rules $A \rightarrow B$

2) Determination of Associative Values

After all the combination patterns are found, then the association rule is found that meets the minimum requirements for confidence. At this stage is done by calculating the cofidence of associative rules A → B by using the formula referring to chapter two. The association rule that can be found by using the sample data above can be seen in the following table:

Table 11. Association Rule of Confidence Value

Associative Rules	Support {A U B}	Support {A}	Confidence
{Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey} → {Cihampelas}	40%	40%	100%
{Gedung Sate, Alun-alun , Gedung Merdeka} → {Ciwidey}	60%	40%	66%
{Cihampelas, Alun-alun, Gedung Merdeka} → {Gedung Sate}	40%	80%	50%
{Gedung Sate, Alun-alun} → {Gedung Merdeka}	60%	80%	75%
{Cihampelas, Alun-alun} → {Gedung Merdeka}	40%	80%	50%
{Alun-alun, Gedung Merdeka} → {Tangkuban Parahu}	80%	60%	75%
{Alun-alun, Gedung Merdeka} → {Ciwidey}	80%	40%	50%
{Gedung Sate} → {Alun-alun Bandung}	80%	60%	75%
{Gedung Sate} → {Gedung Merdeka}	80%	60%	75%
{Gedung Sate} → {Tangkuban Parahu}	80%	40%	50%
{Gedung Sate} → {Ciwidey}	80%	40%	50%
{Cihampelas} → {Alun-alun Bandung}	40%	60%	66%
{Cihampelas} → {Gedung Merdeka}	40%	60%	66%
{Alun-alun} → {Gedung Merdeka}	60%	60%	100%
{Alun-alun} → {Tangkuban Parahu}	60%	40%	66%
{Alun-alun} → {Ciwidey}	60%	40%	66%
{Gedung Merdeka} → {Tangkuban Parahu}	60%	40%	66%
{Gedung Merdeka} → {Ciwidey}	60%	40%	66%
{Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton} → {Tamansari}	100%	100%	100%
{Pantai Indrayanti, Candi Borobudur, Malioboro} → {Keraton}	100%	100%	100%
{Pantai Indrayanti, Candi Borobudur, Malioboro} → {Tamansari}	100%	100%	100%
{Candi Borobudur, Malioboro, Keraton} → {Tamansari}			
{Pantai Indrayanti, Candi Borobudur} → {Malioboro}	100%	100%	100%
{Pantai Indrayanti, Candi Borobudur} → {Keraton}	100%	100%	100%
{Pantai Indrayanti, Candi Borobudur} → {Tamansari}	100%	100%	100%
{Candi Borobudur, Malioboro} → {Keraton}	100%	100%	100%
{Candi Borobudur, Malioboro} → {Tamansari}	100%	100%	100%
{Malioboro, Keraton} → {Tamansari}	100%	100%	100%
{Pantai Indrayanti} → {Candi Borobudur}	100%	100%	100%
{Pantai Indrayanti} → {Malioboro}	100%	100%	100%
{Pantai Indrayanti} → {Keraton}	100%	100%	100%
{Pantai Indrayanti} → {Tamansari}	100%	100%	100%
{Candi Borobudur} → {Malioboro}	100%	100%	100%
{Candi Borobudur} → {Keraton}	100%	100%	100%
{Candi Borobudur} → {Tanamsari}	100%	100%	100%
{Malioboro} → {Keraton}	100%	100%	100%
{Malioboro} → {Tamansari}	100%	100%	100%
{Keraton} → {Tamansari}	100%	100%	100%
{Pangandaran, Batu Karas} → {Green Canyon}	50%	50%	100%
{Pantai Pangandaran} → {Batu Karas}	100%	50%	50%
{Pantai Pangandaran} → {Green Canyon}	100%	50%	50%
{Pantai Pangandaran} → {Cagar Alam}	100%	50%	50%
{Pantai Pangandaran} → {Citumang}	100%	33%	33%
{Batu Karas} → {Green Canyon}	50%	50%	100%
{Cagar Alam} → {Citumang}	50%	33%	66%

After that the minimum requirement of the support value is 2 because it is the minimum number of transactions performed simultaneously, and the Confidence value for association rule in this transaction data is 50%, then the values obtained can be seen in the following table:

Table 12. Association Rule after calculated minimum value

Combination	Support	Confidence
{Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey} → {Cihampelas}	40%	100%
{Gedung Sate, Alun-alun , Gedung	40%	66%

Merdeka} → {Ciwidey}		
{Cihampelas, Alun-alun, Gedung Merdeka} → {Gedung Sate}	80%	50%
{Gedung Sate, Alun-alun} → {Gedung Merdeka}	80%	75%
{Gedung Sate, Alun-alun} → {Ciwidey}	40%	66%
{Cihampelas, Alun-alun} → {Gedung Merdeka}	80%	50%
{Alun-alun, Gedung Merdeka} → {Tangkuban Parahu}	60%	75%
{Alun-alun, Gedung Merdeka} → {Ciwidey}	40%	50%
{Gedung Sate} → {Alun-alun Bandung}	60%	75%
{Gedung Sate} → {Gedung Merdeka}	60%	75%
{Gedung Sate} → {Tangkuban Parahu}	40%	50%
{Gedung Sate} → {Ciwidey}	40%	50%
{Cihampelas} → {Alun-alun Bandung}	60%	66%
{Cihampelas} → {Gedung Merdeka}	60%	66%
{Alun-alun} → {Gedung Merdeka}	60%	100%
{Alun-alun} → {Tangkuban Parahu}	40%	66%
{Alun-alun} → {Ciwidey}	40%	66%
{Gedung Merdeka} → {Tangkuban Parahu}	40%	66%
{Gedung Merdeka} → {Ciwidey}	40%	66%
{Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton} → {Tamansari}	100%	100%
{Pantai Indrayanti, Candi Borobudur, Malioboro} → {Keraton}	100%	100%
{Pantai Indrayanti, Candi Borobudur, Malioboro} → {Tamansari}	100%	100%
{Candi Borobudur, Malioboro, Keraton} → {Tamansari}	100%	100%
{Pantai Indrayanti, Candi Borobudur} → {Malioboro}	100%	100%
{Pantai Indrayanti, Candi Borobudur} → {Keraton}	100%	100%
{Pantai Indrayanti, Candi Borobudur} → {Tamansari}	100%	100%
{Candi Borobudur, Malioboro} → {Keraton}	100%	100%
{Candi Borobudur, Malioboro} → {Tamansari}	100%	100%
{Malioboro, Keraton} → {Tamansari}	100%	100%
{Pantai Indrayanti} → {Candi Borobudur}	100%	100%
{Pantai Indrayanti} → {Malioboro}	100%	100%
{Pantai Indrayanti} → {Keraton}	100%	100%
{Pantai Indrayanti} → {Tamansari}	100%	100%
{Candi Borobudur} → {Malioboro}	100%	100%
{Candi Borobudur} → {Keraton}	100%	100%
{Candi Borobudur} → {Tanamsari}	100%	100%
{Malioboro} → {Keraton}	100%	100%
{Malioboro} → {Tamansari}	100%	100%
{Keraton} → {Tamansari}	100%	100%
{Pangandaran, Batu Karas} → {Green Canyon}	50%	100%
{Pantai Pangandaran} → {Batu Karas}	50%	50%
{Pantai Pangandaran} → {Green Canyon}	50%	50%
{Pantai Pangandaran} → {Cagar Alam}	50%	50%
{Batu Karas} → {Green Canyon}	50%	100%
{Cagar Alam} → {Citumang}	33%	66%

3) Determining the Results of the Interesting Association Rules

After knowing the value of the confidence of the existing support value, the two measures can determine the association rule, ie to compare with thereshold defined by the user, the limit generally consists of:

a. 1 package of at least 3 tourist attractions.
b. The existence of the determination of the sights based on the location of each destination as follows.

Table 13. Places of Interest by Location

Tour Place	Location
{Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey, Cihampelas}	Bandung
{Alun-alun, Gedung Merdeka, Tangkuban Parahu}	
{Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton, Tamansari}	Jogja
{Pantai Pangandaran, Batu Karas, Green Canyon}	Pangandaran

c. If there is a new tourist site with a different location package that has been created then will be created a new package if the limit meets the package if it does not meet the limits it will be considered as a regular tourist attractions..

The result of the recommendation of tourist attractions can be seen in the following table.

Table 14. Result of Interesting Association Rules

Paket 1 (Bandung)	Gedung Sate, Alun-alun, Gedung Merdeka, Ciwidey, Tangkuban Parahu, Cihampelas
Paket 2 (Jogja)	Pantai Indrayanti, Candi Borobudur, Malioboro, Keraton, Tamansari
Paket 3 (Pangandaran)	Pantai Pangandaran, Batu Karas, Green Canyon

From the table results of the interesting rule can be concluded that the product with the highest value based on customer habits (customer behavior) is listed in table 14.

3. CLOSING

3.1 Inference

Based on the results of research and research results and test results that have been done on Customer Relationship Management System at PT. Lintas Dunia, the following conclusions can be drawn:

1. Help marketing manager in determining the sights that match the needs of customers.
2. Helping Customers in choosing the appropriate tourist attractions with the needs.
3. Assist marketing manager in determining the price of the tour package in accordance with the needs of new prospects.

3.2 Suggestions

Suggestions for all the results that have been achieved at this time is the Customer Relationship Management System made has several shortcomings, these are:

Based on the conclusions that have been obtained, the system has met from the intended purpose and objectives, but can still be developed as the development needs of users and the needs of the company. So the advice given to build this system to be better is to expand the coverage of tour packages and umrah plus, that is not only for existing tourist attractions but can also a new tourist attractions. So as to be more visible loyalty from the customers cross the world itself.

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