DEVELOPING TOUR PACKAGE PRICE SYSTEM IN TRAVEL BUREAU COMPANIES

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ABSTRACT

Travel bureau is a service company that provides sales and service of travel related products from various suppliers, such as hotels, restaurants, transport and so forth. The product is packed in a tour package and is offered to tourists or agents, for a certain price. The diversity of wishes of potential customers as well as the efforts to attract larger prospective customers, the company is eager to create a system that can provide broad flexibility for companies and prospective customers to choose and arrange their own package tour. The system is expected to set the price of the package quickly and in accordance with company policy. This research resulted in a system developed with object-oriented methodology and using the programming language VB.Net 2012 and MySQL as its database. This system gives the user the freedom to choose and arrange their own tour package as they wishes and the system will set the price of the product according to the applicable policy. The pricing policy includes the country of origin, the number of persons and the service time associated with the high/peak season period. The system can also present the price of the package in various currencies.

Keywords**:** travel bureau, tour package, pricing, flexibility, system.

INTRODUCTION

In the midst of increasingly fierce business competition, every company is required to be able to provide fast and accurate services to its customers. On the other hand, the company is also expected to be able to provide various products/services that are in accordance with the wishes of customers (Wen & Hou, 2015). This is evident in the field of tourism, especially travel bureau companies. A travel bureau company is a company that sells various kinds of products related to people traveling, such as hotels, restaurants, transportation and so on to its customers. The products sold come from suppliers that are repackaged in various tour packages (Karma, 2015).

In the previous decade, travel bureau companies have full authority in determining the types of tour packages provided to their customers, whether individual or group guests or overseas agents. Customers generally follow the package provided by the company (Karma, 2014). Different from now. With the availability of various

information related to existing tourist destinations, products or tourist attractions, guests/agents tend to choose or determine their own service package they want (Krishnamurthy, Sudha, Rao, Baskaran, & Kannan, 2016; Qian, Hu, & Zhang, 2015). Of course the company still provides tour packages that can be chosen directly. To be able to provide a variety of combinations of tourism products into tour packages, the company must have a variety of products. Not only the variety of products, but also the ability to calculate accurate and fast pricing (Karma & Susanti, 2018b; Zhao, Wu, & Sha, 2015).

The pricing of tour packages generally refers to the prices already given by suppliers that have been marked up and take into account the things that are the company's policies, such as high/low season and other problems as previously explained (Karma & Susanti, 2018a). Practically, this pricing is not so difficult, except for the matter of speed and accuracy. A little problem arises if the price request is related to a variety of product combinations and a large variety of packages (Catenazzo & Fragnière, 2010). Because of the nature of routine work and standards, the pricing of this tour package is actually easily done using the application program. The package pricing information system will easily handle this problem (Chan, Lee, & Lin, 2009).

To support this, the only step that can be done is to computerize the process of preparing and pricing the tour package (Bocij, Greasley, & Hickie, 2008; Kutanis & Mesci, 2013). This research is specifically carried out to produce an information system capable of doing so. The system built will be equipped with the ability to compile and determine the price of a tour package, which has the ability to update data and changes to general policies on tour package pricing. This system will be used by customers or staff of company employees. Thus, the speed of service can be increased, and automatically will also increase the competitiveness of the company (Ensour & Alinizi, 2014; Umeji & Obi, 2014).

LITERATURE RIVIEW

Travel and tourism in particular, as a form of entertainment or leisure has a long history leading up to the 20th century when tourism developed into a multibillion dollar industry that spans virtually all countries, at the local, national and international levels. Faster and more affordable air travel has contributed to more people reaching more remote places and with them their luggage of impacts on the local communities

(González Herrera & Aranda, 2013). Travel bureau are retail intermediaries that represent a wide range of leisure and journey services. The role of the travel bureau is to provide travelers with information, travel documents administration and advices. This type of business is remunerated through commissions collected on the wholesales (Catenazzo & Fragnière, 2010).

Travel bureau' product is tour package. These package do not have patents at all, and every travel bureau can use them. This is one of the factors that the tourism industry is not standard. Most travel bureau set specialized package according to market demands, while there are some travel bureau don't have their own specialized package, and mainly depend on tourists. Specialized package are scale operation, the costs are relatively fixed; the costs of unspecialized package fluctuate wildly (Ling, 2014).

With the development of product development technology and the rapid rise of online retailing, the market competition becomes increasingly fierce. Based on consumer utility function, it established a two-stage dynamic pricing model and discussed pricing strategies under consumer behavior and market competition. Findings indicate that product quality difference and consumer valuation decreasing coefficient determine the order of the consumer purchase decisions. The firm who provides lower-quality products suffered more loss than the firm who provides high-quality products (Ji, 2015).

RESEARCH METHODOLOGY

In developing this system, the approach used is the method of Waterfall development. This development method divides work activities into a gradual and continuous process with each other (Pressman, 2015), with an approach using an object oriented approach. In its implementation, the process will be divided into 3 (three) stages, namely the stages of object-oriented analysis (OOA), object-oriented design (OOD) and object-oriented programming (OOP) (Larman, 2005; Whitten & Bentley, 2007). The activity begins with determining what information is needed by the system or determining the needs of the system to be built. The results of this stage will be presented in several object oriented models. Furthermore, object-oriented system design is carried out. In this design the components that will build the system and their interactions with others will be described. At the final stage, a system development will be carried out, namely writing the program by translating the system design using the

programming language used (Boggs & Boggs, 2002; Kindler & Krivy, 2011; Rumbaugh, Jacobson, & Booch, 2004). In this study the VB.Net 2012 programming language will be used and MySQL as a data collection database from the system.

RESULT AND DISCUSSION

Travel bureau companies sell tour package products, either directly to customers (guests) or through other travel agency agents. The tour package sold is a composition of various products obtained from agents/suppliers, such as tours, hotels, restaurants, transport and others. Companies tend to have set tour packages that they sell, so that buyers are forced to choose. It is not uncommon for prospective buyers to ask for a different package of tours than is offered. Some even want special packages that are in accordance with their own wishes. For cases like this, the marketing staff will arrange a new tour package according to the wishes of prospective buyers, and manually calculate the price of the package.

This system must be able to provide a choice of various types of products sold by the company and at the same time able to calculate the price of the package that is prepared or determined. Prospective customers just choose the product they want and see how much the product/package they choose. The system will calculate the price of the package prepared by prospective buyers in accordance with the applicable provisions in the company.

There are 3 (three) factors determined by the company in calculating the price of a product/tour package to prospective buyers. All three affect the percentage of the selling price of a product that has been determined by the company. The three factors that influence the determination of the selling price of the product are the country of the prospective buyer (Country), many people in the group (Pax) and the period of time (session period). The company has set potential buyers from several countries as targets or target markets, so that prices are different from other countries. The number of people in a group of buyers will also affect prices, in order to increase the number of buyers. Service time is associated with the holiday season or not. In general, holiday season product prices tend to be more expensive than other days. Policies related to these three factors can be changed and adjusted by the company, according to their needs and conditions.

The needs of the system can be described in a use case diagram model as shown in Figure 1. There are 2 (two) main service functions in this system to be built,

namely the service functions of Master data and Quotation. The function of the master data service is a service function that can only be done by the company, especially the Admin and Manager user. While the quotation function can also be carried out by parties outside the company, especially prospective tour package buyers. This master function is used to manage data related to products, policies and users. Product data management includes data on products sold, agents that provide product services and currency rates related to the type of currency that is possible as a means of payment with their respective exchange rates against the Rupiah. Data management related to tour package/product price policies related to country of origin (Country), number of people (Pax) and arrival time (Season Period) of prospective buyers. User management, including the replacement of keywords (passwords) for each user in the company and management of user data in the company in general. The quotation function is used to create certain tour packages and display tour packages that have been made before and at the same time display them, using the total price in a particular currency, other than in Rupiah. In addition to these two main functions, the system is also equipped with an entry (Login) and exit (Logout/Exit) function for each user if they want to operate the system and then end it.

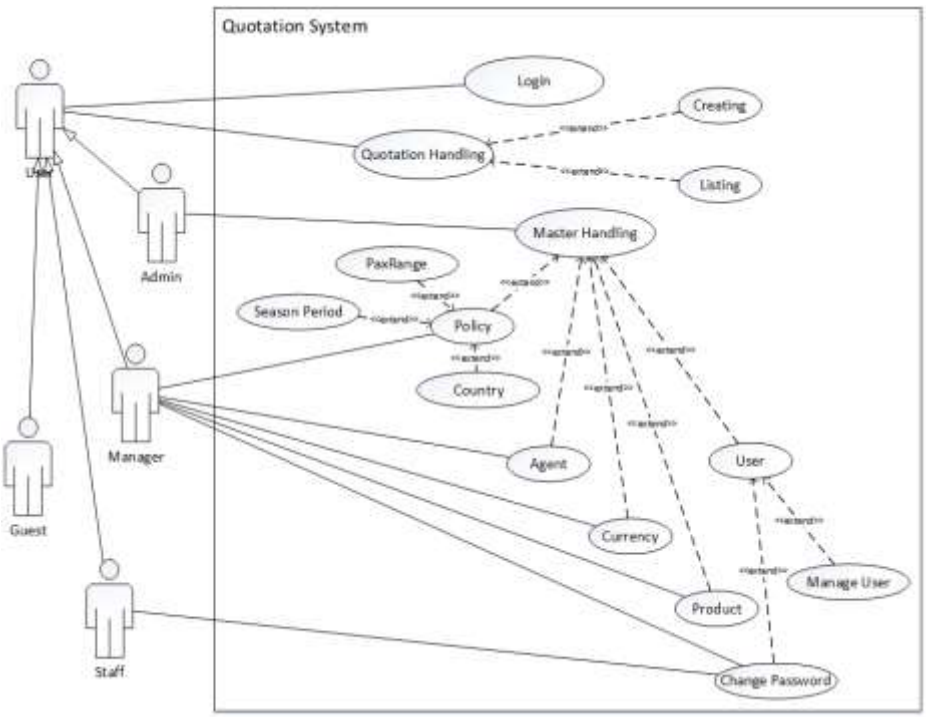


Figure 1
The Use Case Diagram of Tour Package
Price Determination System

In Figure 1 it appears that the system will be operated by a user (user) with 4 (four) categories. The difference in this category is carried out according to things that can be done and the abilities possessed by each category. The four categories of users are Admin, Manager, Staff and Guest. Admin is a super user, who can do all the services provided by the system, namely managing data and quotation services. The manager is a user like admin, except that he cannot manage the user, which is related to adding/removing users to this system. Staff is a normal user in the company, which usually provides services to determine tour packages for prospective buyers who are directly related to the company. His main job is to arrange tour packages, both those desired by prospective buyers, and those offered specifically later by the company. Guest is a general user who is a prospective buyer of tour packages. This user can do the same thing as the staff, except changing the password, because it is not an employee of the company.

The system requires the user to enter the code and password, except for guests, just fill in the Guest code. If valid, the system will display various menus that can be selected. The available menu options are tailored to the user category as described above. There are 2 (two) main menus according to the functions that can be performed by this system, in addition to the Logout/Exit menu to end the operation of this system by the user. Both menus are the Master and Quotation menus which are equipped with their own submenu. The Master menu for managing supporting data on price of tour packages such as product prices, agents that provide product services, currency exchange rates, pricing policies and system users. Through the submenu each user can manipulate the data. The Quotation menu is used to make tour packages or display various tour packages that have been made before. The preparation of this tour package is complemented by detailed prices of each product and the total price that can be displayed in various currencies.

Referring to the description of the results of the analysis and the results of class identification, a class diagram can then be made. The diagram presented in Figure 2 is a diagram that shows the class that the system has and the interactions or relationships that occur between them. Class diagrams from this system are used as a basis for developing programs from the system. Each class in this class diagram will be translated into a class of programs and interfaces which are components or

architectures of the program, and entities that are translated into data tables, as a place to hold data processed in the system.

This system has 10 (ten) tables that will be used to accommodate various types of data, according to the name of the data table. Not all data tables are related to the others, because they are limited to data collection used in pricing, or as temporary storage of data. The Agent table is used as a container for the service provider's data agent for a product, therefore this table deals with the Product table that holds the products offered by the company. Product tables also relate to QuotationList tables as a placeholder for tourism package data that is compiled/selected by system users. This table will be linked to the GuestInfo table which is a table that holds data on guests who make or make a tour package. This guest data will also be linked to the Country table which lists countries that are taken into account in pricing tour packages. Other tables are stand-alone tables, as a container for supporting system data, such as User tables that are used to accommodate system user data from companies with various categories (Admin, Manager and Staff) as explained previously, Currency that holds currency data and exchange value, SeasonPeriod that accommodates the periods of high/peak seasons, PaxRange that accommodate the range of people in pricing, GuestQuotation is a temporary table to record the collection of products selected in the preparation of tour packages.

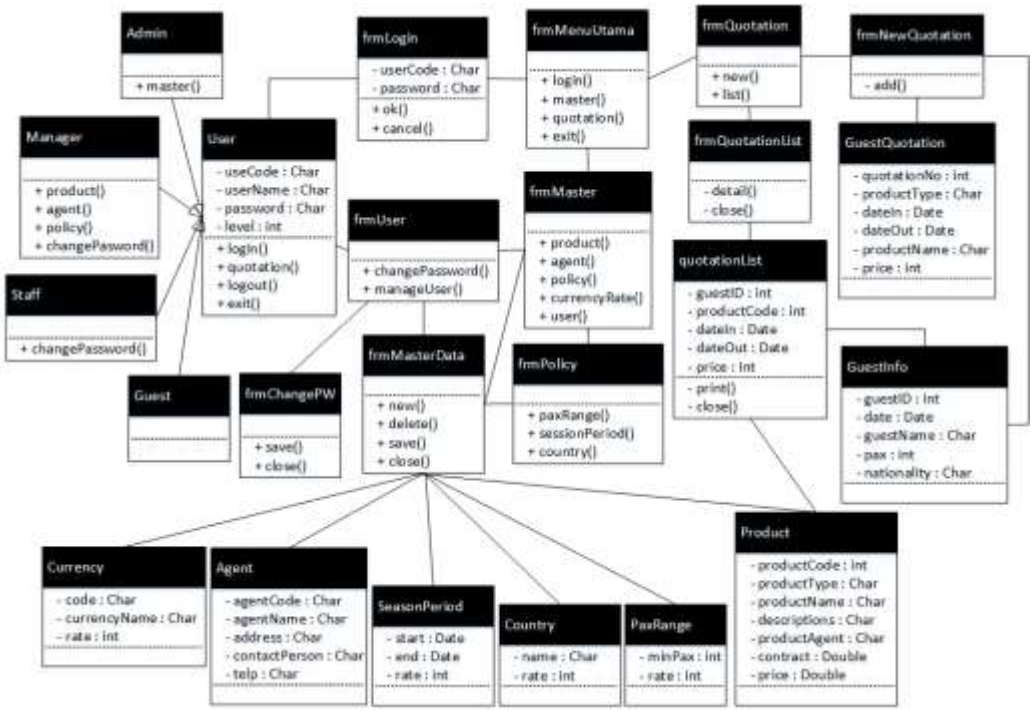
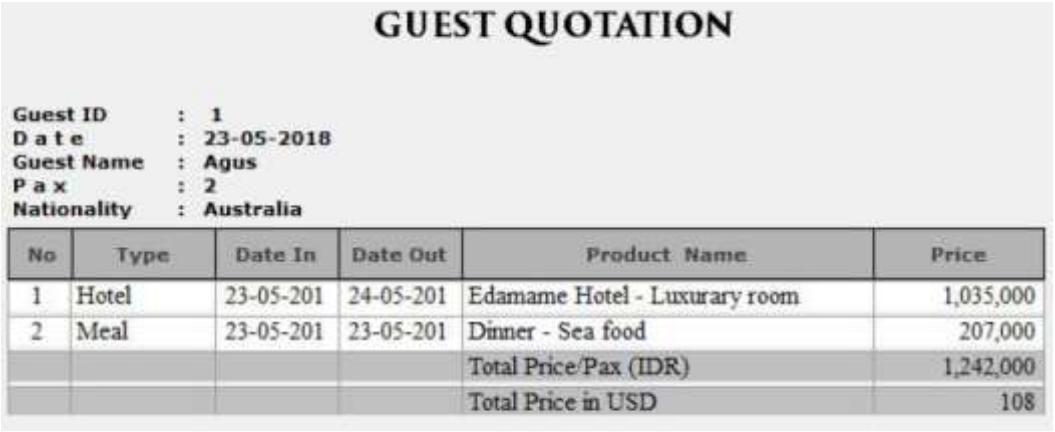


Figure 2
Class of Tour Package Price Determination System

Class, besides being implemented as a data collection table, will be a component of a system builder as well as an interaction medium and system activator. The frmMenuUtama class is the main driver and controller of all program components. This class provides various menus that can be accessed by system users, according to their categories. The frmLogin class acts as the user's entrance into the system. The user is required to fill in the userCode and password, and will be verified and validated to determine whether the user is allowed to operate the system or not. frmMaster is a system component that acts as a controller of system data management, by providing a variety of related menus, which are also connected to other classes, namely frmPolicy, which specifically handles corporate policy data management and frmMasterData which handles data manipulation in general. frmQuotation is a class that acts as a management of tour packages, namely creating new tour packages handled by the frmNewQuotation class, and displaying tour packages handled by the frmQuotationList class. In its operations, this program component will relate to existing data tables.

In preparing a tour package, the system user starts by writing the identity of the buyer's name, the number of people accompanying him and his country of origin. Furthermore, the user only has to choose the type and name of the product available to be added to the tour package that he composes. Every choice of product type and name, the user must determine when the product service will be enjoyed. Every time a product type and name is selected, the system will display the unit price of the product.

Tour packages that have been completed will be saved as tour packages that have been made. All system users are allowed to see tour packages that have been made. The system will display this tour package in a list of guest quotations that can be selected to display product details in the tour package. To display the details, the user must choose one of the existing tour packages, and determine the currency used to set the price of the tour package. The system will then display the details of the tour package as shown in Figure 3. If needed, details of this tour package can be printed to the printer.



GUEST QUOTATION

Guest ID : 1
Date : 23-05-2018
Guest Name : Agus
Pax : 2
Nationality : Australia

No	Type	Date In	Date Out	Product Name	Price
1	Hotel	23-05-201	24-05-201	Edamame Hotel - Luxurary room	1,035,000
2	Meal	23-05-201	23-05-201	Dinner - Sea food	207,000
				Total Price/Pax (IDR)	1,242,000
				Total Price in USD	108

Figure 3
Sample Tour Package Details

The price of the tour package set by this system is the price of a tour package that is prepared based on the product chosen by prospective buyers. The product chosen is the product available in the travel bureau database, that is, the product that is actually offered to prospective buyers. This product can change at any time. Each product has a standard price set by the travel bureau, which at any time can also be changed. The price of this product, when pricing the tour package, will be adjusted to the prevailing pricing policy rules. Pricing policies related to country of origin, number of pax and date of tour services can also be changed.

CONCLUSION

This research produces a system that can be used to arrange tour packages according to the wishes of the user/prospective buyer. Tour packages are arranged on a variety of products offered at certain unit prices. In preparing tour packages, this unit price is then adjusted to the company's policies in pricing tour packages. Price adjustments are made based on the percentage value associated with the product service time/date that is adjusted to the high/peak season, the origin of the prospective buyer and the number of people involved in the tour package service. Company policies related to pricing can be managed and changed as needed.

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REFERENCES

Bocij, P., Greasley, A., & Hickie, S. 2008. *Business information systems: Technology, development and management*. Harlow, England: Pearson education.

Boggs, W., & Boggs, M. 2002. *Mastering UML with rational rose 2002*. Alameda: Sybex.

Catenazzo, G., & Fragnière, E. 2010. "Pricing Traditional Travel Agency Services: A Theatre-Based Experimental Study". *Journal of Service Science and Management, 3*(2), 272.

Chan, A. L., Lee, E., & Lin, S. 2009. "The impact of accounting information quality on the mispricing of accruals: The case of FRS3 in the UK". *Journal of accounting and public policy, 28*(3), 189-206.

Ensour, H. S., & Alinizi, T. M. 2014. "The Impact of Management Information Systems (MIS) Technologies on The Quality of Services Provided at The University of Tabuk". *International Journal of Network Security & Its Applications, 6*(2), 1.

González Herrera, M., & Aranda, M. 2013. *Rapid Assessment of Tourism Impacts through Community Participation—A Pilot Study in Cuba for Projecting New Strategies of Management* (Vol. 1).

Ji, W. 2015. "Dynamic Pricing of Perishable Products with Competition". *Open Journal of Social Sciences, 3*(03), 48.

Karma, I. G. M. 2014. "The Integrated Reservation Information Systems of Travel Agency Company". Paper presented at the International Conference on Tourism in Indonesia, Bali, Indonesia.

Karma, I. G. M. 2015. "The Accounting Information Systems of Water Sports Company". Paper presented at the The 3rd Bali International Seminar on Science and Technology (BISSTECH), Bali, Indonesia.

Karma, I. G. M., & Susanti, J. 2018a. "Development of Account Receivable and Payable System for Travel Bureau Company". *Journal of Physics: Conference Series, 953*(1), 012097.

Karma, I. G. M., & Susanti, J. 2018b. "Development of Integrated Information System for Travel Bureau Company". *Journal of Physics: Conference Series, 953*(1), 012096.

Kindler, E., & Krivy, I. 2011. "Object-oriented Simulation of Systems with Sophisticated Control". *International Journal of General Systems, 40*(3), 313-343. doi: 10.1080/03081079.2010.539975.

Krishnamurthy, M., Sudha, D., Rao, Y. N., Baskaran, R., & Kannan, A. 2016. "An Effective and Customized Itinerary Planning System Using Association Rule Mining Technique with Personalized Points of Interest". *Circuits and Systems, 7*(07), 1120.

Kutanis, R. Ö., & Mesci, M. 2013. "Information Management and Business Performance in the Hotel Industry: Effects of Innovations". *Journal of Travel and Tourism Research (Online), 13*(1/2), 18.

Larman, C. 2005. *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Develoment* (3rd ed.). USA: McGraw Hill.

Ling, C. 2014. "A Study on Reasons and Solutions to Tour Guides' Ripping Off Tourist". *American Journal of Industrial and Business Management, 4*(2), 90.

Pressman, R. S. 2015. *Software Engineering: A Practitioner's Approach*: McGraw-Hill Connect.

Qian, Y., Hu, J., & Zhang, M. 2015. "Study on the Online Travel Information Search: A Perspective of Social Media". *Advances in Applied Sociology, 5*(08), 219.

Rumbaugh, J., Jacobson, I., & Booch, G. 2004. *Unified Modeling Language Reference Manual*. Reading, Massachusetts: Pearson Higher Education.

Umeji, A. U., & Obi, C. A. 2014. "Cost Accounting Skills Needs of Small Business Operators". *American Journal of Industrial and Business Management, 4*(5), 246.

Wen, J., & Hou, P. 2015. "Comparative Study on Travel Agency Management System in Mainland China, Hong Kong and Taiwan". *American Journal of Industrial and Business Management, 5*(01), 37.

Whitten, J. L., & Bentley, L. D. (2007). *Systems Analysis & Design Methods* (7th ed.). New York: McGraw-Hill Irwin.

Zhao, Z., Wu, D., & Sha, S. 2015. "Bargaining Power of Suppliers and Buyers, and Accounting Conservatism—Evidence from Chinese Manufacturing Listed Companies". *Journal of Financial Risk Management, 4*(01), 11.