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Increasing Corporate Competitive Advantages in Customer Loyalty Using Electronic Applications Laundry

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ABSTRACT

The business application solutions in an electronic form based on information communication technology is the company's commitment to enhancing the competitive advantage of its corporate customers in terms of efficiency, effectiveness, performance, and business development. The research objective to provide laundry services to customers in implementing laundry application services in electronic form, so that it is expected to simplify and accelerate work and improve the company's competitive advantage. This research uses descriptive analytic and design methods by presenting a summary of interviews and field surveys, model diagrams and navigation structures in developing laundry service applications. The research output is to be able to perform the design process and empower the electronic model of laundry service, this research is also expected to increase the competitive advantage of corporate customers.

INTRODUCTION

Currently, electronic-based services are used by users to be able to provide convenience in service to all their customers. This electronic-based service can also be used in laundry service [1-4]. The business application solutions based on information communication technology is the company's commitment to enhancing the competitive advantage of corporate customers in terms of efficiency, effectiveness, performance, and business development. This is certainly part of an effort to improve the quality of customer service while bringing benefits to the company's competitive advantage [5-6].

Electronic-based information communication technology strongly supports the laundry service industry. Laundry industry certainly has a budget for using electronic laundry-based applications. With this laundry service application, the quality of laundry service industry can increase.

The laundry service industry is widespread in big cities in Indonesia, such as Jakarta. The reason for using the laundry service was because of the busy schedule of the customers, which made them not have time to clean their own clothes. Therefore, urban customers often look for laundry services to help them clean their clothes in the midst of their busy lives [7].

Chairman of the Indonesian Migrant Workers Association, Wasono Raharjo said if you want to start a laundry business with a small capital, laundry-kilo is the right choice. With a capital of about 15 million up to 20 million rupiahs, entrepreneurs can build laundry service business in strategic locations such as housing, campus or boarding house [8].

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In the situations described above, the laundry service industry requires adequate electronic laundry service applications. Electronic laundry service applications can be used to simplify and speed up administrative work to be more effective and efficient. Electronic laundry service applications that will be implemented in the laundry service industry can also be used to manage all necessary data, ranging from customer registration data to managing customer data, raw material data to be used, supplier data, and all other operational data used by the laundry service industry [9].

In this research try to raise the issue of how it can be used to build adequate electronic laundry applications so that it can be used by all customers to improve the quality of service to customers while helping customers in cleaning their clothes. The purpose of this study is to provide learning services to customers in performing laundry services in electronic form, so it is expected to simplify and accelerate the work of customers and is expected to increase the competitive advantage of corporate customers [10].

Assessment of previous research is Silvester DHP and Faisal, 2015 declared this laundry application was made in the laundry of ASRI UMI and used by the people of Bekasi [11]. Harisuddin, et. al, 2016 declared a laundry application created using the OOAD method. Ghozali, et. al, 2016 states a laundry application created with the Codeigniter framework. Setiyawati, et. al, 2016 states a laundry application created with the Android platform. Hamidi, 2015 declared a laundry application made with extreme programming [4].

Hussein, et. al, 2014 states the laundry application information about PT. Wiranas Laundry and Dry Cleaning Service of human resources [7]. Hidayat, et. al, 2014 declared laundry done on Hello Laundry [6]. Rukmanasari, 2013 declared a laundry application created with visual basic 6.0 [9]. Tanto, 2013 declared a laundry application made at PT. Tiara Panca Abadi [12]. Yuliana, 2013 declared a laundry application made in Mbak Is Prambanan Klaten [13].

The research framework can be seen in the following figure.

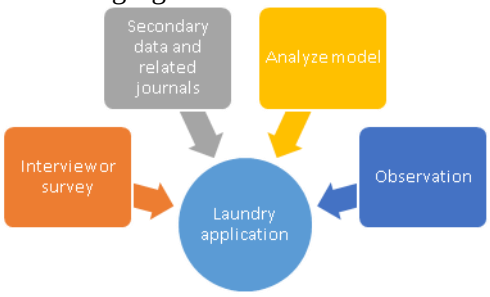

Fig. 1. Research Framework

The research roadmap can be seen in the following table.

Table 1. The Roadmap Research

No	Description
1	Observation; Feedback: Survey and interview with expert respondents about the use of laundry application; Purpose: To get an idea of using a laundry service that helps customers; Methods: With Reference search through literature studies, observations, interviews, and discussions with expert respondents using focus group discussions; Output: Laundry analysis as a service that helps customers.
2	Laundry application design review; Feedback: Survey and interviews with expert respondents to find descriptions of laundry design; Objective: Specify features to be used in the design process of the laundry application model; Methods: With reference search through observation, interviews, and discussions with expert respondents using focus group discussions; Output: Design laundry application.
3	Search for supporting data; Feedback: Secondary data from various media such as the internet, literature books, scientific journals and supporting articles; Objectives: To produce quality and up-to-date research; Methods: Reading literary books and scientific journals and supporting articles; Outputs: Literary books, scientific journals and supporting articles as reference lists.
4	Analysis of laundry application model; Feedback: The theory that supports model analysis and design of laundry applications; Objective: Get the expected design; Method: By designing a laundry application; Output: Model laundry application.

5	Laundry application interface design; Feedback: Data from questionnaire results and interviews with expert respondents; Objective: Provide recommendations for designing a laundry application model; Methods: Focus group discussion with expert respondents; Output: Design and testing of the laundry application model.

The website navigation structure involves the entire website navigation system and website interface design, navigation makes it easy to navigate the website. The navigation structure can also be defined as the flow structure of the program which is the design of relationships and chains in various fields and can help manage all elements of website creation. The mixed navigation structure is the navigation structure used in this study, where the user will navigate freely, but is sometimes limited to linear presentations or important information and to the most logically organized data in the hierarchy.

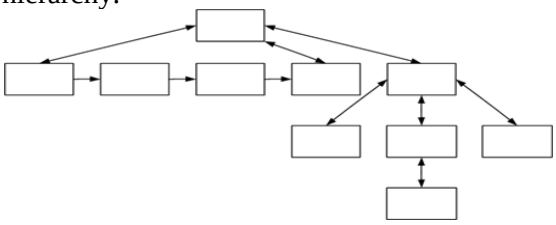

Fig. 2. Navigation Structure
Source: Binanto 2010 [1]; Faisal, 2015 [2]

EXPERIMENTAL METHOD

This research uses the descriptive-analytic method and design modeling by summarizing the result of interview and survey. With this method will be illustrated model laundry application, and will be analyzed design laundry application interface modeling. Data analysis techniques are used to analyze the construction of interface models using the use-case diagram.

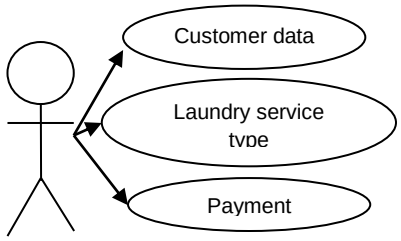

Fig. 3. Diagram Model

The navigation structure is shown in the figure below.

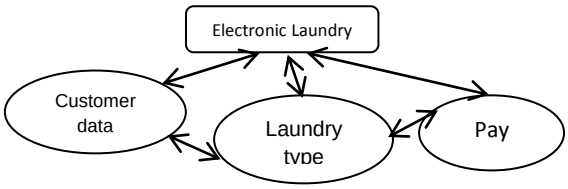

Fig. 4. Navigation Structure Design

RESULTS AND DISCUSSION

Laundry Navigation Structure

Development of electronic laundry application can be seen in the figure below.

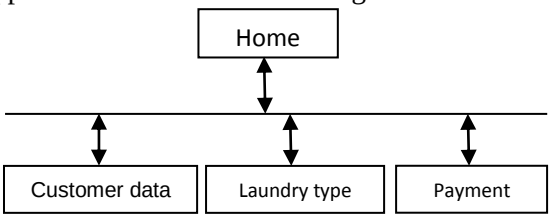

Fig. 5. Laundry Navigation Structure

Customer User Interface

User interface 'customer data' can be seen in the figure below.

Fig. 6. Customer Data Interface

Laundry Type User Interface

User interface 'laundry type' can be seen in the figure below.

Fig. 7. Laundry Type Interface

Payment User Interface

User interface 'payment' can be seen in the figure below.

Fig. 8. Payment Interface

Laundry Application Testing

Testing of electronic laundry service application model is done by checking the application directly to be applied. The following is a laundry application test model.

Table 2. Customer Data

Item	Result	Tested	Valid
Click ADD icon	Successfully add customer data	Accordingly	Valid
Click Change icon	Successfully change customer data	Accordingly	Valid
Click Delete icon	Successfully delete customer data	Accordingly	Valid
Click Find icon	Successfully find customer data	Accordingly	Valid
Item Number	Successfully add customer ID	Accordingly	Valid
Item Name	Successfully add name customer	Accordingly	Valid
Item Address	Successfully add address customer	Accordingly	Valid
Item contact	Successfully add contact no customer	Accordingly	Valid
Click Save icon	Successfully save customer	Accordingly	Valid
Click Cancel icon	Successfully cancel saving	Accordingly	Valid

Table 3. Laundry Type

Item	Result	Tested	Valid
Click ADD icon	Successfully add laundry type	Accordingly	Valid
Click Change icon	Successfully change laundry type	Accordingly	Valid
Click Delete icon	Successfully delete laundry type	Accordingly	Valid
Click Find icon	Successfully find laundry type	Accordingly	Valid
Item Number	Successfully add laundry ID	Accordingly	Valid
Item Type	Successfully add laundry type	Accordingly	Valid
Item Weight	Successfully add weight laundry	Accordingly	Valid
Item Type	Successfully add another laundry type	Accordingly	Valid
Item In	Successfully add the date in	Accordingly	Valid
Item Out	Successfully add date out	Accordingly	Valid
Click Save icon	Successfully save laundry type	Accordingly	Valid
Click Cancel icon	Successfully cancel saving	Accordingly	Valid

Table 4. Payment

Item	Result	Tested	Valid
Click ADD icon	Successfully add payment	Accordingly	Valid
Click Change icon	Successfully change payment	Accordingly	Valid
Click Delete icon	Successfully delete payment	Accordingly	Valid
Click Find icon	Successfully find payment	Accordingly	Valid
Item Number	Successfully add payment ID	Accordingly	Valid
Item Pay	Successfully add pay amount	Accordingly	Valid
Item DP	Successfully add down payment	Accordingly	Valid
Item Remain	Successfully show remain	Accordingly	Valid
Click Save icon	Successfully save payment	Accordingly	Valid
Click Cancel icon	Successfully cancel saving	Accordingly	Valid

The test results of the laundry service application model using a black box approach.

In the three tables, the results of the laundry service application software testing developed to function properly.

CONCLUSION

The development of laundry service application model is able to overcome the problem of laundry service and can present better information. With the implementation of this laundry service application model can help alleviate the tasks of all parties directly related to laundry service applications and is expected to increase the competitive advantage of corporate customers. This laundry service application is developed by using an interactive interface so that both the administration and the owner can directly use this application as possible. This research only focuses on the development of laundry service application, and it is highly recommended to be developed further.

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