

Design and Implementation of Web-Based Personal Shopper Marketplace Application

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ABSTRACT

The goal of the research was to simplify the process of buying and selling using personal shopper in the community more controlled, facilitate the community to find reliable personal shopper, as well as make the transaction with personal shopper more secure with third parties. The research method used is divided into problem analysis and evaluation. Problem analysis was obtained by the case study method. Evaluation is done by two approaches that are questioner and comparison with a similar application. The results achieved from this research is a web-based application that will facilitate the process of finding personal shopper and transaction with a personal shopper. The conclusions of this research can make the community more comfortable to find personal shopper also increase the level of trust in personal shopper transactions

Key words : Marketplace, Personal Shopper, Web-based Application.

1. INTRODUCTION

The many interests of the public to obtain goods that are not affordable from the local area, makes most of them entrust the products purchased by relatives who are traveling abroad or even just out of town [1]. This is also the originator of a new business idea called a personal shopper, or in Indonesia, it is often called a substitute service. Personal shopper works are now commonly done is requester gives a shopping list to the traveler, after that the requester pays an agreed amount of money to the traveler, then the traveler buys the item deposited, and the last stage of the purchased item is sent to the requester [2].

The realm of application developing has quickly been gaining ground [3]. Therefore, to make a more straightforward way in which entrusted services work is currently in demand by the public, it is necessary to develop applications that support requester to submit goods that are of interest and applications that also make it easier for travelers to get submissions of products that can be adjusted

to their objectives. At this time, the development of the internet began to be implemented to carry out buying and selling transactions [4].

The formulation of the problem to be discussed is developing an application that can make the applicant and traveler transact safely and comfortably in interacting and transacting and provide the information needed by the applicant and information offered by travelers.

The goal to be achieved is to develop applications that act as third parties to guarantee transactions and the applicant can be used to obtain the desired goods and is useful for travelers to get the benefits of the services entrusted.

2. RESEARCH METHODOLOGY

The methodology used to build this personal shopper application is to collect data in advance through a literature study conducted to search for data related to a personal shopper and website design that is used as a reference and questionnaire which is repeated to confirm the data that has been obtained from the literature study results. Next, analyze the system that is already running by developing software from data collected from data collection methods. After completing the analysis, software development uses the Waterfall method which is often called the classic life cycle (classic, life cycle), where it is revised which is analyzed and also sequentially on software development, starting with the specification of user needs, then discussed through the planning process planning (planning), modeling (modeling), construction (construction), and the delivery of the system to the customers (deployment), which ends with support for the software produced [5]. After the program completes and has passed the testing phase, a focus evaluation is carried out on logic and functional to ensure that all parts are running and ensure that the results are as expected. Users who carry out this evaluation so they can test five measurable human factors and obtain criticism and suggestions for future development [6].

3. RESULT AND DISCUSSION

After completing the application creation, the application is shared with several users to try. After completion, each user who tries will be asked a question about the app, which includes aspects in five measurable human factors. Here are some questions asked to the user:

1. Is Nitipyuk personal shopper application attractive?

Table 1: Application questionnaire 1

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	15.8%	3 Respondents
Agree	36.8%	7 Respondents
Disagree	47.4%	9 Respondents
Very Disagree	0%	0 Respondents

2. Is Nitipyuk personal shopper application easy to use?

Table 2: Application questionnaire 2

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	36.8%	7 Respondents
Agree	47.4%	9 Respondents
Disagree	10.5%	2 Respondents
Very Disagree	5.3%	1 Respondents

3. Can Nitipyuk personal shopper application simplify the process of entrusting services?

Table 3: Application questionnaire 3

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	62.3%	12 Respondents
Agree	36.8%	7 Respondents
Disagree	0%	0 Respondents
Very Disagree	0%	0 Respondents

4. Do you feel helped by the application of these Nitipyuk services?

Table 4: Application questionnaire 4

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	68.4%	13 Respondents
Agree	26.3%	5 Respondents
Disagree	0%	0 Respondents
Very Disagree	5.3%	1 Respondents

5. Are the features in the Nitipyuk app application easy to use?

Table 5: Application questionnaire 5

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	15.8%	3 Respondents
Agree	57.9%	11 Respondents
Disagree	26.3%	5 Respondents
Very Disagree	0%	0 Respondents

6. Are you satisfied with the features in the Nitipyuk application?

Table 6: Application questionnaire 6

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	63.2%	12 Respondents
Agree	36.8%	7 Respondents
Disagree	0%	0 Respondents
Very Disagree	0%	0 Respondents

7. Is Nitipyuk entrusted service application worth disseminating?

Table 7: Application questionnaire 7

Answer Parameter	Percentage	Number of Respondents
Strongly Agree	63.2%	12 Respondents
Agree	26.3%	5 Respondents
Disagree	10.5%	2 Respondents
Very Disagree	0%	0 Respondents

This entrusted service application has also followed the eight golden rules principle, that has been used in this application, that is:

1. Strive for Consistency
Every page in the app has a consistent look, menu placement in the same position.
2. Cater to Universal Usability
The entrance arrow icon as a login sign has been used to illustrate this point.
3. Offer Informative Feedback
This point illustrates the response from the application to the user. Even in this application, this point has been made. For example, when a user enters, if the user inputs incorrectly, the user will get a message stating that the input is incorrect.
4. Design Dialog to Yield Closure
The purpose of this point is that the user knows that the inputted action has been completed by the system. Examples that exist in the application of this entrusted service is that when the user has finished inputting, the user will get a statement stating that the input was successful.
5. Prevent Error
In order to reduce user input errors, these points are very much needed in an application. Examples that exist in the application of this entrusted service is

the existence of a date picker for users inputting dates.

6. Support Internal Locus Control
Users can adjust the application as they wish. In this case, the entrusted service application, the user can choose to be a requester or traveler.
7. Reduce Short Term Memory load
So that users do not need to remember what input will be entered. An example is the remember me feature that is in the login.

4. CONCLUSION

Based on the results of the development of entrusted service applications, data collection, and program development methods have been carried out. The following findings can be obtained :

- Applying safekeeping services can be used by requester and traveler to transact safely and comfortably.
- Application of deposit services can be used by the requester to get the desired goods.

Personal shopper application acts as a third party between requester and traveler so that payment and shipping transactions can be monitored.

After the application has been tried with several users, there are a number of recommendations given for the development of application services for the future, that is :

- Application created with a mobile version so users can more easily reach applications.
- The language used in the application can be added in a foreign language, such as English so that the application can be used and understood by users from various countries.
- Payment methods can use payment integration and installment programs.

REFERENCES

- [1] P. Agus, **Tips Sukses Jalankan Bisnis Personal Shopper Dengan Modal Minim**, 2018, Available at <https://digitalentrepreneur.id/personal-shopper/>
- [2] M. Kresna, **The Power of Jastip**, 2017 Available at Tirto ID: <https://tirto.id/the-power-of-jastip-cyZ3>
- [3] A. D. M. Africa, G. Ching, K. Go, R. Evidente, and J. Uy, “**A Comprehensive Study on Application Development Software Systems.**” International Journal of Emerging Trends in Engineering Research vol. 7 no. 8, pp. 99-103, 2019
- [4] H. Andre, P. P. Sihombing, Sfenrianto, and G. Wang, “**Measuring Consumer Trust in Online Booking Application.**” International Journal of Emerging Trends in Engineering Research, vol. 8 no. 3, pp 611-616, 2020.
- [5] R. S. Pressman, Roger and B. R Maxim, **Software Engineering A Practitioner’s Approach**, 8th ed. New York: McGraw-Hill Education, 2015.

- [6] T. M. Connolly, and C. E. Begg, **Database Systems: A Practical Approach to Design, Implementation, and Management**. Pearson Education, 2015