

Performance and Transaction Monitoring Dashboard Website Based PT Emporia Digital Raya

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Abstract— Performance and Transaction Monitoring Dashboard Website Based PT. Emporia Digital Raya was to find out performance of business partners, area leader, main dealer and approval of business partners that have been acquired for the company. This dashboard is made to make it easier for companies and product owners to monitor acquisition, transactions through an integrated and non-manual system to minimize errors. Performance and Transaction Monitoring Dashboard was developed using the initial UI design method to describe all the functions that will be available on the web, then developed with *reactJS* library and JavaScript language, API, and PostgreSQL as database. The testing phase uses technology adoption with a focus on validity, reliability, and AVE test variables after distributing questionnaires to all website users, internal team of PT. Emporia Digital Raya using quantitative methods by classifying each question in the questionnaire. Then the result is that there are several test variables that are not valid in the validity test because they have an item validity value or the validity of the question variable is below 0.4, then the variable must be removed and retested, and after the second test, the results show that the variable has the above item validity value. 0.4 so it is considered valid. In the first validity test, the variable E was declared invalid due to an error in the classification of the questionnaire and did not represent an indicator, so that the

variable E was not included in the next test. In the reliability test, only BI and EE variables have high or acceptable Cronbach alpha values, while FC (poor) and PE (unacceptable) or unreliable due to the incorrect classification of questions on the questionnaire causing the variables to be unreliable to be used in further research. In the correlation test, only PE and FC were significantly correlated with BI, while EE was not significantly correlated due to errors in the classification of the questionnaire so that it did not match the variables.

Keywords— Performance and Transaction Monitoring Dashboard, Website.

I. INTRODUCTION

In recent times, the internet has become a common thing for almost everyone. Websites are closely related to the continuous growth of the internet which is very fast. Websites are visited every day by many people when they access the browser [1]. At first when a website develops, most companies start using the website to show their company profile [2] and continue growth into an e-commerce platform with online payment support that can be done easily via the internet without having to meet physically. Websites can be used for online sales [3], providing content or for information about individuals or a company [4]. The use of websites is always increasing, which

makes many application developers, especially websites, continue to explore many new things and of course improve the ability of developers as well [5]. Monitoring performance and transactions referred to in this study is a website dashboard that can be used to monitor performance such as how many acquisitions, partners have joined IKI. For transaction monitoring, product owners or internal teams can monitor how many transactions occur daily and monthly. This study uses a website to monitor performance in charts, tables and detailed data using bootstrap. Due to the high usage of the website, there are many libraries for website development, one of which is used to develop this web dashboard, namely *ReactJS* [6]. *ReactJS* is a library based on the Javascript programming language [7] created and maintained by Facebook and its community [8]. Javascript can be used directly to create a website, of course a dynamic website and an attractive appearance and make website users not bored because of a static display [9]. Javascript language can generally be used and developed using a browser [10], Node JS is operated using a server because the module has been connected to Node JS [11]. In addition, UI design is the first and important step to do before developing a website. UI or User Interface is a visual display or picture of an application or website that becomes a reference for users to know the color, appearance of the application or web that will be developed. Display UI design with various menus and the right colors [12] will affect the user in using it, it will be more attractive to the user [13]. Before starting to develop a website, UI design is one of the most important things [14]. User Experience or UX is the user experience of an application that can make it easier for users and can

attract more user interest in using an application [15].

The main purpose of making this website is as a performance monitoring dashboard that companies can monitor the performance of main dealers, area leaders and business partners on Canvasser. Some of the lists on the website, namely: area leader, area leader is a person who acquires business partners to join IKI application users through the IKI Canvasser application. Second, business partners are partners who have been acquired by the area leader then the business partner will receive an SMS to the partner number to login to the IKI Mitra application and in the application the partner will make various kinds of transactions. Transactions in the IKI Mitra application are: PPOB (Payment Point Online Bank) or (credit, electricity bills, water bills), C2A (Cash to account) cash deposit and P2P (Peer to peer) credit loan. Transactions in IKI Mitra application will be monitored through this website. Main dealer is a company or leader who will be the lead of many area leaders. The more area leader that main dealer have, the more business partners and transactions, so it will affect the incentives obtained by the main dealer.

II. METHOD

The research method was carried out with primary data sources taken from questionnaires targeting website users (admin and product owner PT. Emporia Digital Raya) and secondary data sources taken from online journals. Using technology adoption techniques with a focus on validity, reliability, and AVE test variables after collecting data with a questionnaire. The research sample is admin and product owner PT. Emporia Digital Raya. The literature study

technique is used by collecting data through written sources of information, such as papers, and online journals.

To get valid data, it is required to test the website. The method used to test the website is by testing the website and filling out questionnaires by website users. Test variable is Effort Expectancy, Enjoyment, Performance Expectancy, Facilitating Conditions, Behavioral Intention. Each variable has several indicators that will be tested for validity, to find out whether the variable is valid or not when used for research. Each indicator in the variable will be seen for its correlation to find out whether the indicator is valid or not. In this study will test the correlation of variables Effort Expectancy Social Influence, Performance Expectancy, Facilitating Conditions to variable Behavioral Intention.

III. RESULTS AND DISCUSSION

A. Flowchart

Website creation begins with creating a UI design which is then developed using *ReactJS* with the Javascript language. Figure 1 below is a website dashboard flowchart. Product owners can add main dealers for new areas, if the main dealer has met the criteria, it will be registered and entered the main dealer list, users can also view the monitoring dashboard, list area leaders, and upload new promotional photos. The business partner section, the business partner that has been acquired will enter the page waiting approval, which then the admin will determine whether the partner has already appropriate with the terms or not, if not, area leader can ask the partner for revision or it can be rejected, if it has been revised and appropriate with the terms it will be approved. After that the user can

see a list and details of business partners that have been approved and also rejected.

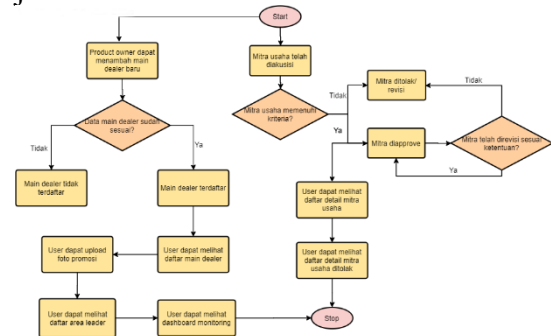


Figure 1. Flowchart Canvasser

B. Usecase

Figure 4.2 is a website dashboard use case. In this website dashboard, consists of 2 users, namely product owner and admin from PT. Emporia Digital Raya. Where product owners can login, view dashboard pages, transaction dashboards, partners, leader and main dealer areas, add main dealers and upload promotional photos. Meanwhile, admins can login, view dashboard pages, transaction dashboards, partners, leader and main dealer areas, approve/revise/reject acquired partners, and upload promotional photos.

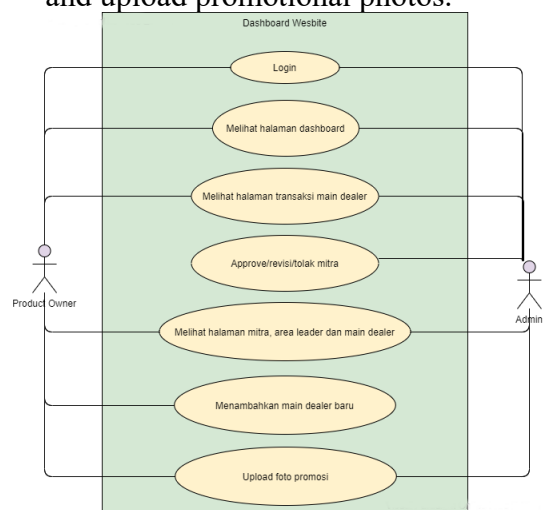


Figure 2. Usecase

C. Entity Relationship Diagram (ERD)

ERD (Entity Relationship Diagram) is a diagram containing entities that is useful

for viewing entities, relationships, and their attributes. In Figure 3 kanvaser has a relation with the authentication code and achievement table with a one to one relationship, and the activity log table has a one to many relation. One to one means that every 1 data in the table has 1 data that is related to other tables. While one to many means that 1 data in the table has a relationship with a lot of data in other tables. Log activity to achievement has a many-to-one relation because the many recorded activities of the kanvaser will produce one line in the achievement table in the form of the number of acquisitions, and the activity log to the member counter has a many-to-many relation which indicates that a lot of data when the kanvaser performs an activity will generate a lot of data at the member loket in the form of partners that have been acquired.

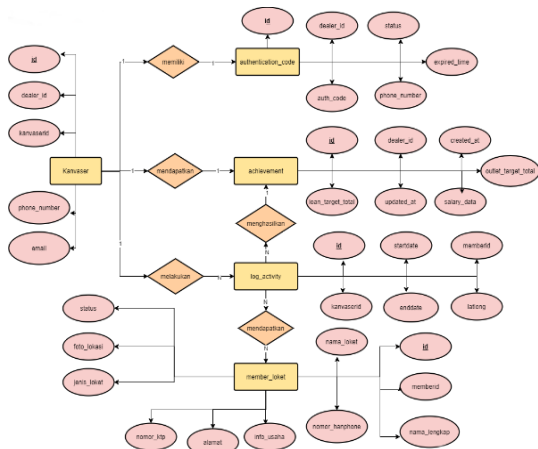


Figure 3. Entity Relationship Diagram (ERD)

D. Data dictionary

This website uses the company database PT Emporia Digital Raya with PostgreSQL 10. Consists of 2 databases, namely kanvaser and public, kanvaser database contains tables achievement, authentication code, kanvaser. Database public tables member and member loket. In Figure 4, there are relationships between

tables kanvaser and public databases. The relation between these tables connects id, member id and kanvaserid which is useful for storing kanvaser data as well as partner data. The kanvaser table contains data about kanvaser such as id, email, phone number. The achievement table contains data on how many partners have been acquired by kanvaser. The authentication code table contains data when the kanvaser registers, kanvaser will get an sms containing the OTP to be entered into the IKI Canvasser application for completing the registration. The activity log table is a table that contains all data about kanvaser activities such as acquisitions, visits, transactions, and others. The last table, which is the member counter, is information about partners that have been acquired by the kanvaser which contains names, addresses, ids, and others.

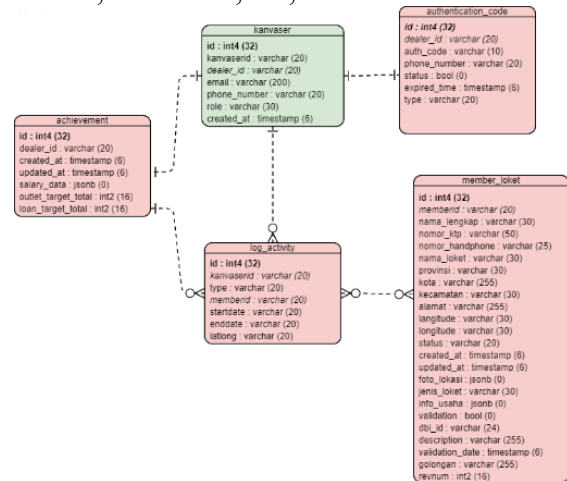


Figure 4. Data dictionary

E. Dashboard Website

The initial page when opening the website is the login page, Figure 5 shows the login screen. Login to this web canvasser using email, mobile number and password.

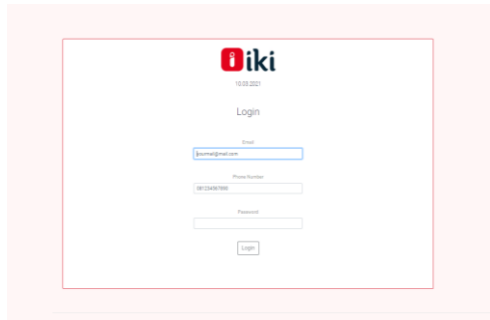


Figure 5. Login page

The next page is the dashboard where the page contains charts, pie charts, and more. Figure 6 shows the dashboard page display. The dashboard page can be used to view performance in charts such as acquisition targets, regular visit targets, number of area leaders and main dealers, and others.



Figure 6. Dashboard page

Figure 7 shows the display of the Add Main Dealer page. The add main dealer page is used to input data for new main dealers who will be registered and join IKI Canvasser.

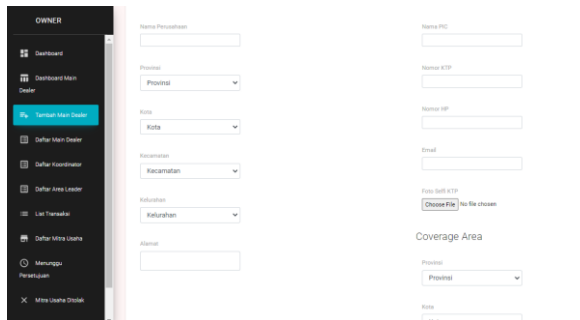


Figure 7. Add main dealer page

Figure 8 shows the display of the dealer's main list page. The main dealer list page can see the details of the id, company name, city, and

others.

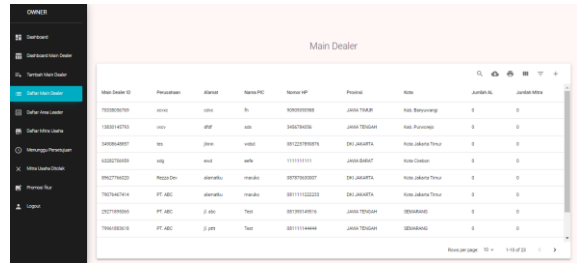


Figure 8. List main dealer page

Figure 9 shows the display of the leader area list page. Area leader list page can see the details of the id, name of the main dealer, address, cell phone number, and others,

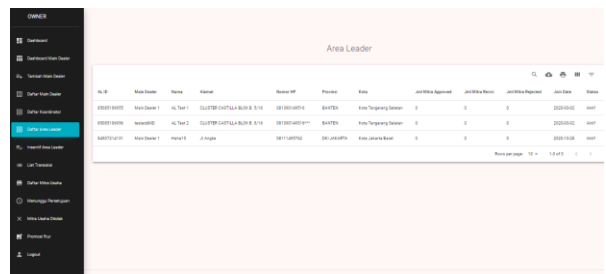


Figure 9. Area leader list page

Each area leader has the task of acquiring partners to join IKI, business partners who have been acquired by area leaders can be seen in detail in the list of business partners. Figure 10 shows the display of the business partner list page. The business partner list page can see details of id, partner name, cell phone number, photo ID, address, and others.



Figure 10. Mitra usaha page

Partners who have been acquired by the area leader will enter the page waiting approval and then be approved or rejected

by the admin of PT Emporia. Figure 11 shows a page display waiting for approval.

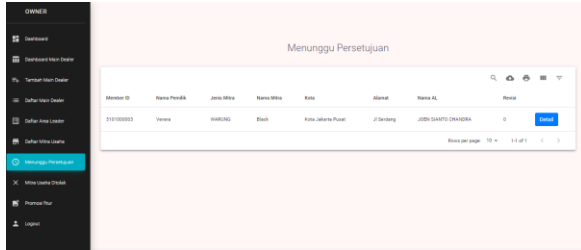


Figure 11. Waiting approval page

Partners who have not or do not meet the criteria will be revised or rejected by the admin, and the rejected page contains a list of rejected partners or still requires data revision. Figure 12 shows the page for business partners rejected. The rejected page can view details of partner data that has been rejected / does not meet the criteria.



Figure 12. Rejected page

The product owner or admin can upload promotional photos that will appear in the IKI Canvasser application. Figure 13 shows the display of the feature promotion page. Promotion and feature pages are used to upload promotions that will appear at the beginning when application is opened so that it is visible to the user.



Figure 13. Feature promotion page

F. Result Research

After distributing the questionnaires and getting 36 respondents, a test was conducted using SPSS to test the validity, test reliability, and test correlation. Validity test is used to test the accuracy of a variable used in research. Reliability test is a test used to measure the consistency of a measuring instrument of a test instrument. Correlation test is a test to determine the correlation between variables.

Table 1 is the result of a validity test that removes variables E6, EE3, E, PE2, PE4, PE5 and found the appropriate result and has an item validity value above 0.4.

Table 1. Validity test result

Rotated Component Matrix^a

	Component		
	1	2	3
EE1	.073	.915	-.051
EE2	.092	.862	.216
PE1	.701	.115	-.028
PE3	.583	.507	.057
FC1	.199	.017	.597
FC2	.150	.187	.644
FC3	.044	-.048	.861
BI2	.804	-.115	.352
BI3	.905	.089	.271

Extraction Method: Principal Component Analysis.

Rotation Method: Quartimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Table 2 is the result of the reliability test on the BI variable which has a value 0.924.

Table 2. BI reliability test results

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.708	.709	2

Table 3 is the result of the reliability test on the FC variable which has a value 0.555.

Table 3. FC reliability test results
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.565	.555	3

Table 4 is the result of the reliability test on the PE variable which has a value 0.469.

Table 4. PE reliability test results
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.469	.469	2

Table 3 is the result of the reliability test on the EE variable which has a value 0.820.

Table 5. PE reliability test results
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.820	2

The table below is the test value range of the reliability test on certain variables.

Table 6. Reliability test range

Cronbach's alpha	Internal consistency
$\alpha > 0.9$	Excellent
$0.9 > \alpha > 0.8$	Good
$0.8 > \alpha > 0.7$	Acceptable
$0.7 > \alpha > 0.6$	Questionable
$0.6 > \alpha > 0.5$	Poor
$0.5 > \alpha$	Unacceptable

In the table below, BI is acceptable which means this variable can be used for

further research, FC poor which means it cannot be used for further research because the use of the website is not very related to the use of facilities. PE is unacceptable or means that it cannot be used for further research because the questionnaire questions on the PE variable have a classification error, EE is acceptable which means it is consistent and can be used for further research.

Table 7. Reliability test value

Variabel	Cronbach's alpha	Internal Consistency
BI	.709	Acceptable
FC	.555	Poor
PE	.469	Unacceptable
EE	.820	Acceptable

Table 8 shows the results of the variable correlation test, where the variables EE, PE, and FC will be correlated with the BI variable.

Table 8. Correlation test results
Correlations

		SEE	SPE	SFC	SBI
SEE	Pearson Correlation	1	.388*	.159	.133
	Sig. (2-tailed)		.027	.354	.438
	N	36	36	36	36
SPE	Pearson Correlation	.388*	1	.244	.528**
	Sig. (2-tailed)	.027		.152	.001
	N	36	36	36	36
SFC	Pearson Correlation	.159	.244	1	.412*
	Sig. (2-tailed)	.354	.152		.013
	N	36	36	36	36
SBI	Pearson Correlation	.133	.528**	.412*	1
	Sig. (2-tailed)	.438	.001	.013	
	N	36	36	36	36

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

- From the test table, the value of the direction of the hypothesis (Sig. (2-tailed)) shows $EE > 0.05$ and the Pearson Correlation value is 0.133, which means that EE is not significantly correlated with BI. EE is not significantly correlated due to errors in the classification of the

questionnaire so that it does not match the variables.

- From the test table, the value of the direction of the hypothesis (Sig. (2-tailed)) shows $PE < 0.05$ and the Pearson Correlation value of 0.528 which means that PE is significantly correlated with BI.
- From the test table, the value of the direction of the hypothesis (Sig. (2-tailed)) shows $FC < 0.05$ and the Pearson Correlation value is 0.412 so it has a significant and positive correlation with BI.

Based on the validity, reliability, and correlation tests, it can be seen that in the final validity test it was found that EE1, EE2, PE1, PE3, FC1, FC2, FC3, BI2, BI3 had item validity values above 0.4 and valid, while the variables E, EE3, PE2, PE4, PE5, B1 were deleted because they had item validity values below 0.4 due to the classification of questions that did not match the variables and were not included in the next test. In the reliability test, the EE and BI variables are acceptable or reliable, while the PE (unacceptable) FC (poor) or unreliable for further research is due to improper classification. In the correlation test the FC and PE variables were significantly correlated with BI, while EE had no significant correlation because the questions in the questionnaire did not represent the test variables.

IV. CONCLUSION

Based on the results of research on the "Performance and Transaction Monitoring Dashboard Website Based PT Emporia Digital Raya" it can be concluded that:

1. Dashboard website for monitoring performance and transactions made using reactJS and JavaScript language by displaying useful charts and tables to increase effectiveness and efficiency in monitoring the performance of the leader area.
2. Based on the test results, the performance and transaction monitoring dashboard website can be useful to minimize errors because the data is displayed to the website via the API and the data comes from a direct database. However, the PE variable in the reliability test showed Unacceptable which means it is not reliable for use in further research.
3. The creation of a dashboard website for monitoring performance and transactions can make it easier for business partners to approve, monitor transactions, and view data lists, but the EE correlation test does not correlate significantly with BI because user convenience does not affect the intensity of use.
4. Errors in the statistical test of this study that caused several variables to be invalid, reliable or correlated were the classification of questions that were not in accordance with the variables they were supposed to, thus making the variables invalid, reliable or correlated.

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