



Utilization Augmented Reality Technology on Purchase Products in E-commerce

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Abstract. E-commerce or known with e-commerce is trading electronic, easy e-commerce is online catalog from traded products. Survey we are social conducted in April 2021 shows that as many as 88.1% of internet users in Indonesia use service e-commerce for buy product certain, one of is furniture products. Destination from study this is designing an application Android mobile based that works for educate Public about application technology Augmented Reality on purchase furniture products in e-commerce, methods on research this is descriptive analyst with approach qualitative. Whereas The method in Augmented Reality is multimarket, where user can scan markers _ together for showing virtual object to real world by real-time. Development application this could give description new to user e-commerce that will buy furniture products, users could see product in 3d and get more information _ useful compared with information through picture or description from furniture products, applications this aim for educate public that Augmented Reality is a technology that will Becomes solution new for face all challenge on purchasing furniture products in e-commerce.

Keywords: Augmented Reality, Technology, E-commerce

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1. Introduction

E-commerce or what is known with electronic commerce is trading electronic, easy e-commerce is online catalog from traded products. How to use for offer product is with method upload picture or photo product to an e-commerce site [1]. Survey we are social conducted in April 2021 shows that 88.1% of internet users in Indonesia use e-commerce services for buy product certain, one of is furniture products [2]. Furniture is usual product used at home and

office, furniture products can be made of from wood, bamboo, metal, and plastic, furniture products that are often sought after candidate buyer is the place bed, decorative clock, table work, and sofa. Furniture products in e-commerce have limitations for example, limited to technology appearance product, candidate buyer only could see pictures and information 2d text only, candidate buyer can just disappointed and accepted different furniture products with what are they look in the catalog e-commerce. one effort that can conducted that is with sealer Augmented Reality on furniture products in e-commerce, later customer could see product in 3d before buy product it and can feel sensation shopping on e-commerce as if real [3].

Wei Zhu, Charles B. Owen, Hairong Li, Joo -Hyun Lee. said in his research entitled" Personalized in-store e-commerce with the promopad: an augmented reality shopping assistant. Augmented Reality can increase perception man in To do online shopping, products found in e-commerce will see more real so that make product more meaningful and interesting [4]. The research entitled A Survey of Augmented Reality is mentioned that Augmented Reality is technology that combines object in the form of 2D or 3D project objects that to in time real by real-time [5].

Destination from study this is designing an application Android mobile based that works for educate Public about application technology Augmented Reality on purchase furniture products in e-commerce, methods on research this is descriptive analyst with approach qualitative. Whereas The method in Augmented Reality is multimarket.

2. Method

2.1. Presentation of the wastewater treatment plant

Method research used in study this is descriptive analysis with use approach qualitative, deep planning system, on research this use Unity 3d app with use method development prototyping system, method this used for describe whole system on app to user or user, there are five stages that must be worked on method development prototyping system [6]. Method development the prototyping system is shown in Figure 1.

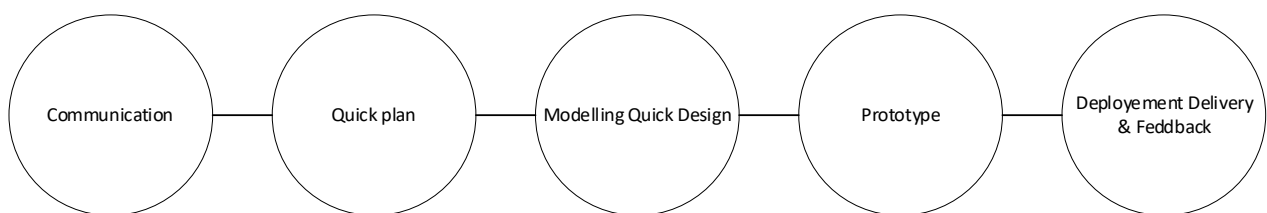


Figure 1. Stages Method Development Prototyping System

Following is explanation on stages Method development prototyping system:

1. Communication or communication, where this is searching information to needs user.
2. Quick Plan, stages planning needs user
3. Modelling Quick Design, stages fast creating interfaces for applications.
4. Prototype, manufacture application by prototypes included testing and refinement.
5. Deployment Delivery and Feedback, namely release application then evaluate application to needs user, do repair, then on stage end produce application by Correct so that could use by users.

2.2. Methods on Augmented Reality

Augmented Reality is technology that combines object two dimensions or three dimensions then visualize objects the two in the real world (Realtime) [7]. Augmented Reality consist from a number of methods, Following is methods contained in Augmented Reality.

1. Marker Based Tracking, this is method that requires a marker (marker) for bring up object Augmented Reality, Marker usually is illustration black and white rectangle with limit black thick and background behind white [8].
2. Marker less method this no again need a marker (marker) for bring up object Augmented Reality [9].
3. Multi Marker, suitable her name Multi Markers method this consist from several markers (markers) combined, the reason researcher use method this is for make it easy user in election object, so user no again confused for choose object if there is several markers [10-12].

3. Results and Discussion

3.1 Identifying Requirements

Application this designed for showing furniture products use technology Augmented Reality meant for make it easy user or buyer before buy product that. Application this consist from Home Menu, Product Menu, AR Camera Menu, Help Menu. Application Menu Structure this could see in Figure 2.

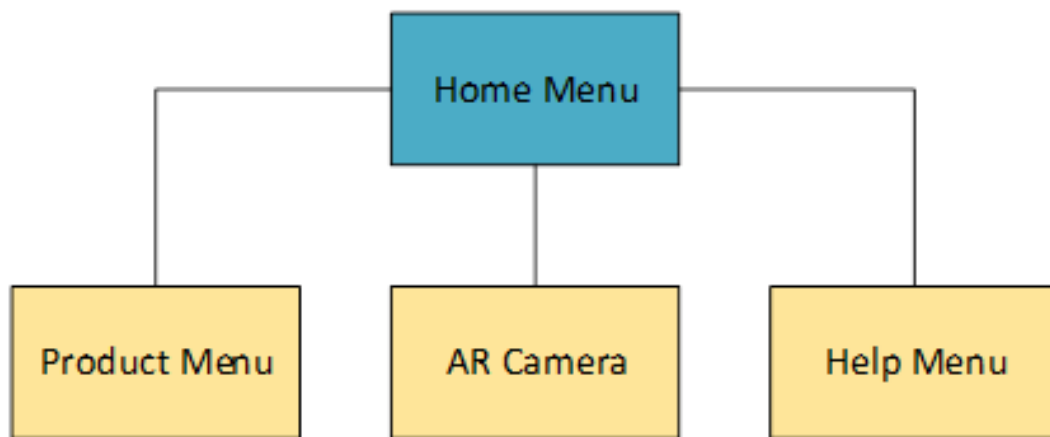


Figure 2. Furniture Applications with AR Menu Structure

Figure 2 shows design menu structure of Furniture Application With AR, Menu structure consists of from Main Menu, on this menu there are 3 sub menus that can be chosen namely the product menu, the AR camera menu, and the help menu. On the product menu there is a number of furniture products that can be chosen user, then the AR camera menu is a menu that displays furniture products Augmented Reality, and help menu is a menu containing method use application.

3.2 Developing the Initial Prototype

Prototyping is part important from development application, but is one field practice the rarest design explored, at stage beginning making prototype researchers designing page front on Furniture applications with AR that can be seen in Figure 3.

Figure 3 shows page beginning application Furniture with AR before user enter to page main. On page this, there is a which button if user push knob that, then will direct to page main application. Main page Application Furniture with AR shown in Figure 4.

On page main this will 3 main menus are displayed namely Product, AR Camera, and Help, consumer can choose the appropriate menu with what you want.



Figure 3. Home Furniture App with AR

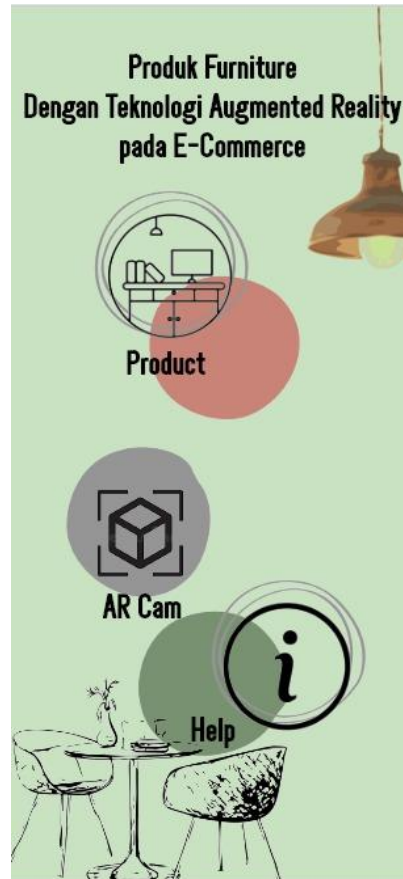


Figure 4. Home App Furniture with AR

3.3 Testing prototype

After prototype beginning succeed made, done prototype testing for testing the initial prototype that has been made on stage previously that is about three main menus. Explanation from the three menus above shown in Figure 5.

Figure 5 shows product page. This page will containing future furniture products could selected by the user. After seeing and determining what furniture will be purchased, user will direct for use the AR cam menu to see 3D object from products already determined. The AR cam menu is shown in Figure 6.

Figure 5 shows product page. This page will containing future furniture products could selected by the user. After seeing and determining what furniture will be purchased, user will directed for use the AR cam menu to see 3D object from products already determined. The AR cam menu is shown in Figure 6.

Figure 7 shows page help / help. This page containing about information about method use furniture application with AR. It is also explained here about what that Augmented Reality, how it works, and also the Multi marker method.

Application this different with e-commerce applications in general, application this have feature addition that is display product virtually to the real world by real-time, this allow customer feel online shopping saga real, and be solution new for all challenge in shop furniture products in e-commerce.

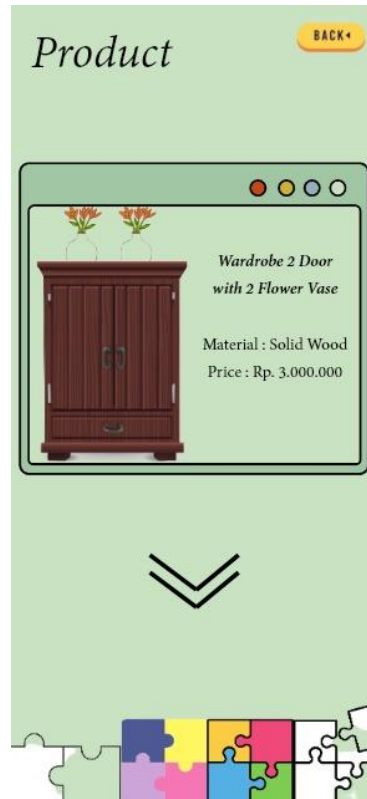


Figure 5. Product Page



Figure 6. AR camera page



Figure 7. Help Page

4. Conclusion

Application Conclusion this designed for educate Public in apply augmented reality technology on purchase furniture products in e-commerce with use multi-marker method. In application this user could Scan the marker according to the desired furniture for showing virtual object to real world by real-time. Technology Augmented Reality works too lower disappointment consumers and the possibility of buying wrong to products contained in e-commerce, Augmented Reality makes furniture products look more real and interesting.

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