

UNWAHA Cooperative Digital Marketing Automation Based on BOT Engine

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ABSTRACT

So far, the University KH A. Wahab Hasbullah cooperative service system. to customers is done manually even small things such as customer questions to cooperatives regarding the availability and price of an item must be done manually and of course it is very disturbing ease of shopping and tends to waste time for customers. Telegram messenger is a social messenger or chat media that has a lot of unique features that are free so it is very beneficial to use for the general public, one of its unique features is its telegram-bot (Telegram BOT). Telegram BOT Api is a robot created with a program that can perform many instructions given by the creator or user, this bot itself is just a telegram account running on software that has artificial intelligence features. This telegram api bot offers developers to make it easier to retrieve data and process it into useful information. Telegram bot itself is divided into two, namely the mobile version (telegram bot) and the web version. The result of this research is that this mobile application is managed using a webhook as the communication method. This method is used because it is very easy and bots do not have to update data regularly because one of them is placed in the Uniform Resource Locator (URL). And if there is an incoming message, it will be directly displayed at the specified URL and will then be forwarded to the bot for processing.

Keywords: Service; Telegram; Telegram bots; Webhooks; URLs.

INTRODUCTION

Today's developments in the world of trade have begun to shift which at first traders sold and promoted their wares through offline trading has now changed to online or the digital world this phenomenon itself is none other than because trading through the digital world is very profitable for a trader or businessman because by doing business online we don't need to create a place and maintenance costs and can also cover a wider market, but not a few online business activists even though they already have very many advantages as above, business people in the digital world are also not successful in their business, this problem spearheaded by the lack of services that can be provided, because the wider the market should be, it must also be improved in terms of service and this is very often underestimated by business activists in the digital or online world so that the business can be said to be unprofitable (Hariono et al, 2021).

University KH. A. Wahab Hasbullah is a university that is within the scope of Islamic boarding schools and more precisely in Tambakberas, Jombang City, East Java, within the university stands a business entity managed by the University, namely the Unwaha cooperative and in it often carries out buying and selling activities offline, because it has entered the digital era, the cooperative does not only buy and sell offline but also online and to improve its services, a telegram bot system is made where the bot can be used to see what goods are sold and their prices so that customers don't have to bother. bother to ask again (Bahtiar & Sifaunajah, 2018).

METHOD

Operational Definition

- Digital Marketing
Digital marketing is a marketing strategy that utilizes increasingly advanced information technology (Ryan, 2014:4). One of the things that determines digital marketing in successful implementation is that Digital Marketing provides convenience for customers/users to use (Sufaidah et al., 2020).
- Telegram
Telegram is a popular messaging service that is based on an open-source platform. In addition to its completely free service without any payments, it also offers ads-free environment with a clean and fast interface (Sutikno et al., 2016).
- Webhooks
Webhooks is one method of information communication in the Telegram Bot Engine. Overall, the Telegram Bot Engine provides 2 communication methods, namely Long Polling and Webhook. (Airlangga, 2020)
- Telegram bots
Bots are third-party applications that can be run inside Telegram. Users can send messages, commands, and inline requests. We can control bots using HTTPS to telegram API (Mulyanto, 2020).
- Push Notifications
Push Notifications is a service that is widely used for notification purposes via short messages on smartphones (Siddik & Nasution, 2018).

To carry out the preparation of this research, several stages were carried out to obtain the required data as follows:

- Data collection at the Unwaha Cooperative
Namely conducting research on the place that is used as the object of the research in order to collect the necessary data where the place is Cooperative University KH. A. Wahab Hasbullah in January – May 2021.
- Research methods
Here the method used is a method that is carried out sequentially and systematically where this method is usually called the Waterfall method, this model is also commonly called the waterfall method which in its implementation at each stage is done sequentially so that it looks like water flowing down, and there are several stages in this method as follows:

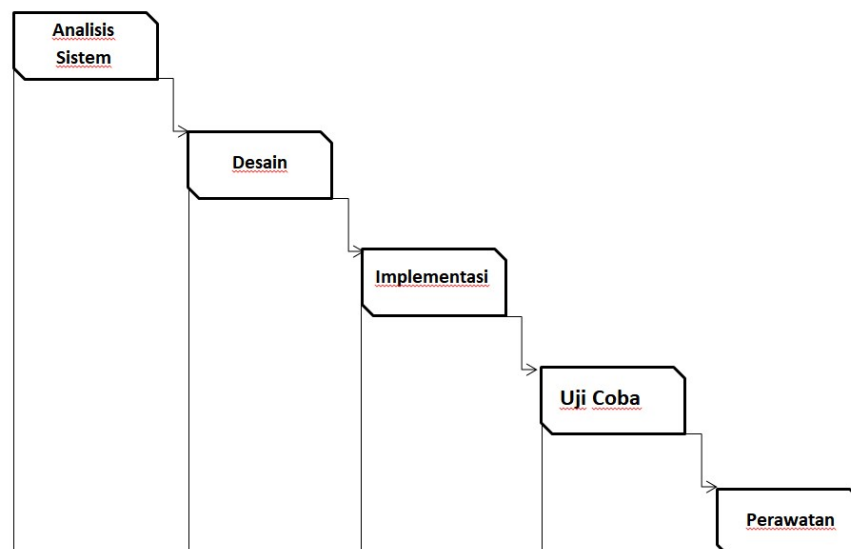


Figure 1. Waterfall Method

- System analysis
At this stage the first thing to do is to analyze and prepare what needs are needed to make the application. In this study, it is necessary to conduct interviews with employees of cooperatives University KH. A. Wahab Hasbullah.
- Design
The following stage is the creation of a display or user interface before coding in the cooperative telegram bot application University KH. A. Wahab Hasbullah.
- Implementation
At this implementation stage, namely the application of what has been done in the previous two stages and coding, in making the Unwaha cooperative telegram bot application, it takes a telegram account, making bots on bot fathers on telegram, then hosting for database and webhook placement to run the gter application optimally.
- Trials
At this stage the application that has been made is tested to find out whether or not there is a malfunction in the application and it is in accordance with what is expected or not.
- Care
This final stage is the maintenance of applications that have been made, so that applications can be run optimally and there are no errors or errors and carry out the developments needed to make the application more optimal.
- Data Flow Diagrams (DFD)
Data Flow Diagram is a flow or map of a system, often dfd is used by someone who works in the field of information systems.
DFD focuses on the flow of information, the origin and destination of data, to how the data is stored.
Usually, dfd is used to describe or analyze an information system. In addition, this diagram can also be used in the process software development.

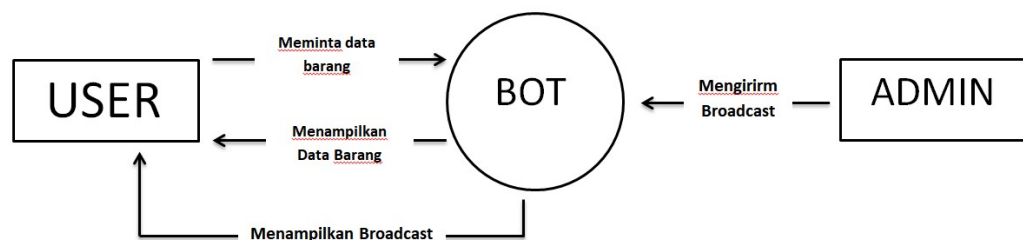


Figure 2. Cooperative BOT DFD

From the dfd above we can find out which one, the user can request item data to the bot and the bot will automatically respond and display the item data requested by the user, and the admin can send a broadcast via the bot and it will be automatically forwarded and the bot will automatically display it to the user who installed the cooperative bot.

RESULTS AND DISCUSSION

Result

The results of this study resulted in an innovation that changed the service of the cooperative University KH. A. The old Wahab Hasbullah, where a customer is required to ask something about the items he wants to buy to the cashier manually, causing his own difficulties for a cashier because in addition to having to focus on his work, he also has to focus on answering questions from a customer about the items to be purchased and If there is an error, it will cause disappointment and dissatisfaction for the customer. Changes to the new system are faster because the time needed to ask the cashier can be minimized because customers can ask anytime and anywhere while they are connected to the internet network without having to ask the cashier so they can shop more pleasantly and also they can get notifications about important promotions and information directly from the admin through the broadcast

feature in the bot engine-based UNWAHA cooperative automation application. This innovation gives positive things to customers because they get satisfaction in service.

Discussion

The application generated from this research is in the form of utilizing the Bot Engine feature found in the telegram social media application which is commonly used in the general public.

Basically, this research runs on the Telegram platform, so the Telegram application must first be installed on an Android smartphone. After installing the application, use the search feature with the keyword koperasibot with a profile photo of the logo University KH. A. Wahab Hasbullah as shown below.

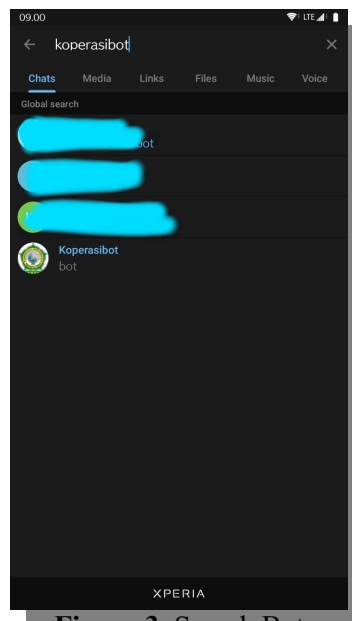


Figure 3. Search Bot

After the bot is found as shown in Figure, then just press it and it will display the following display:

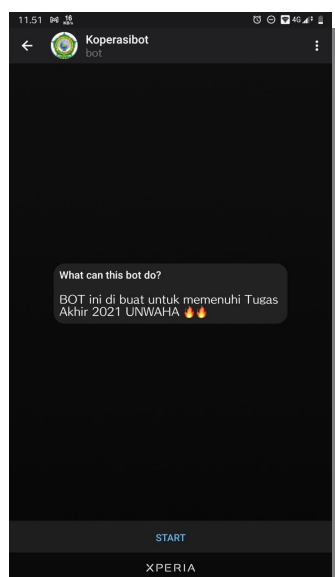


Figure 4. Initial view of opening a bot

Then by pressing the START button and the Bot service will detect whether the user's Telegram ID has been registered with the application or not. Once registered, the Bot will display the types of services that can be used, as shown in the following image.

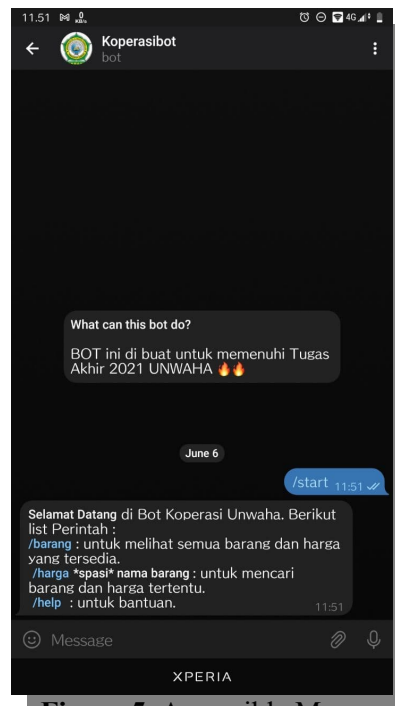


Figure 5. Accessible Menu

With this, registered users can use the features that exist in the bot, such as when a user wants to check the price of an item, they just need to write down keywords with existing conditions, for example */harga surya isi 12* it will display as shown below.

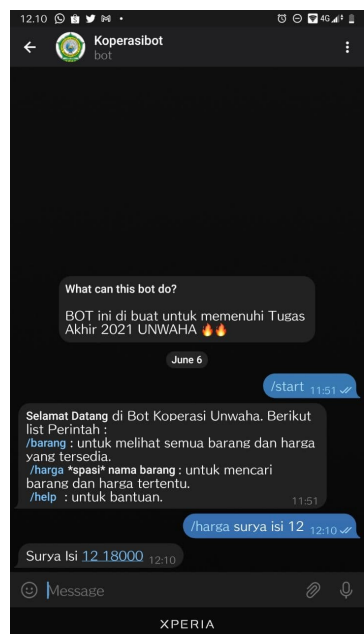


Figure 6. Accessing The Features of Finding Goods and Their Prices

With that customers can know the price of an item. This research is not only for customers but can also be used for admins, there is one feature that can only be used by admins, namely the broadcast feature, which to access it, the admin must first login to the cooperative web to be able to access it and if you access it, it will display a display like the image below. below this.

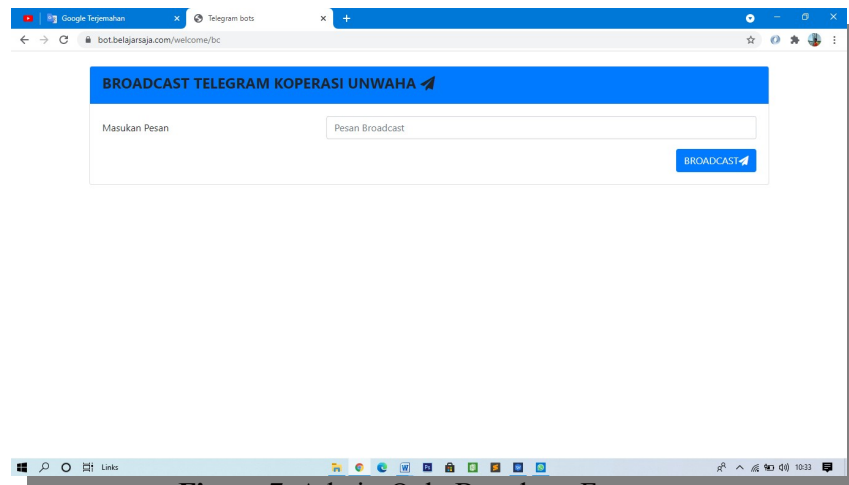


Figure 7. Admin-Only Broadcast Features

After that, the admin can type what you want to share or broadcast to customers by typing in the message input field and send it by pressing the broadcast button more and if it has been sent it will go directly into the user's telegram whose telegram ID has been registered and on the web there will be an alert that reads successfully sending broadcasts and more details as shown below.

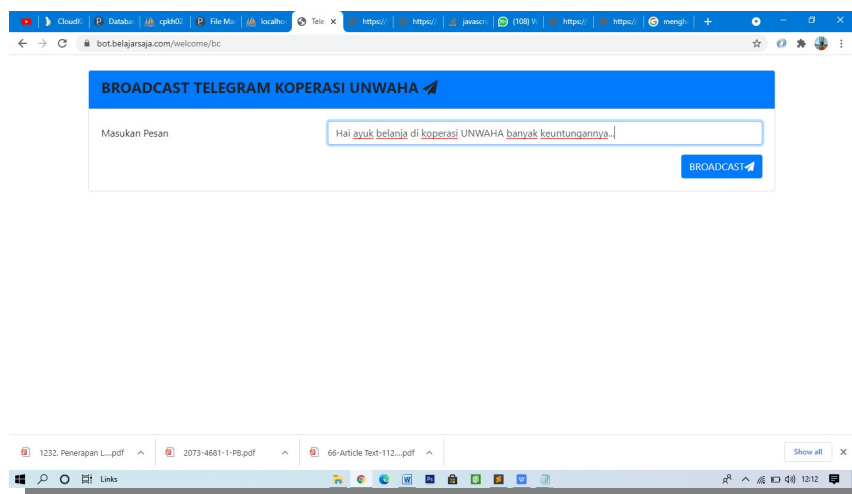


Figure 8. Writes What Will Be Broadcast



Figure 9. User Display When Receiving A Broadcast

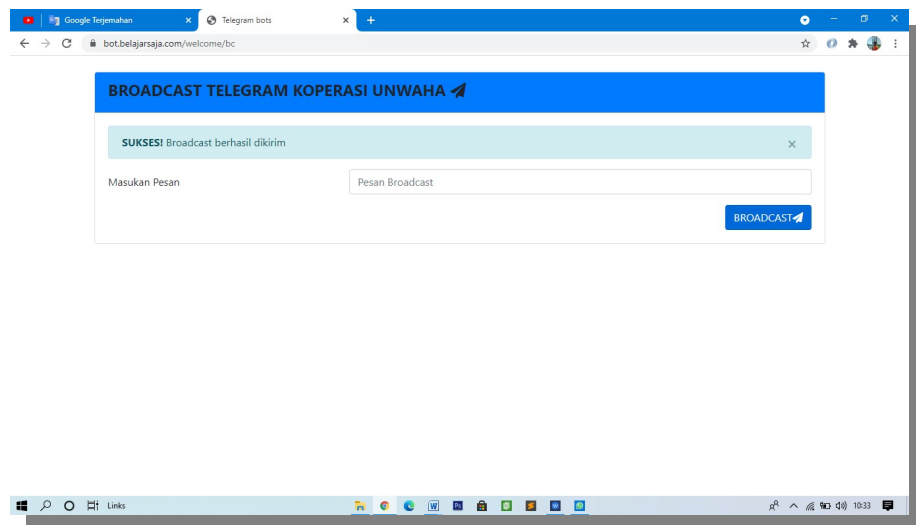


Figure 10. Display Broadcast Has Been Sent to Admin

CONCLUSIONS

After conducting research on Digital Marketing Automation of UNWAHA Cooperatives Based on BOT Engine, it can be concluded as follows:

- Digital Marketing is a marketing strategy where the indicator of success is convenience for customers.
- The Bot Engine service runs on the telegram platform, if you want to operate it, you must first install the telegram application.
- Telegram is a platform that is commonly used and has many unique and free features so it is very profitable to use.

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