

## **The Apps Development of Mutual Agreement to Avoid Fraud in Online Business**

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### **Abstract**

*Fraud cases in online business are happened on unreliable platforms and cause trouble to the consumer. Suppliers or companies keep stalling the product's delivery even though customers have made full payment for the purchase. Besides, a potential buyer who wants to buy a product by paying in installments cannot proceed because there is no guarantee that the buyer will fully pay for the product, thus causing the small businesses to lose customers. The apps focused on small-medium companies only. This application can also be used by the public who want to buy goods by postal delivery, especially when buying used goods. A digital contract will be formed between the buyer and seller to achieve a mutual agreement. It can be used for various situations, such as purchasing installments suitable for small businesses and creating a personal warranty to buy secondhand items. Details of the contract like payment methods, product delivery method, date of the last day delivery, warranty, and penalty will be recorded and kept in a database. The digital contract will be adjusted to fit the law such as 'Akta Kontrak 1950' and 'Akta Jualan Barangan 1957'. The apps used the Agile Method for development methodology. The apps were developed using the Android Studio with Java as the primary programming language.*

**Keywords:** *Apps, online business, fraud, mutual agreement.*

### **1. Introduction**

The sale and purchase of goods online have become a trend nowadays. However, some scams often occur in these online transactions. The problem that often arises from online trading is fraudulent while purchased the products. Seller not sending a product that customer had paid. These can be seen from the case of face mask fraud during the current Covid-19 pandemic. In addition, other forms of fraud, such as the sale of goods, are not as advertised. The product may have invisible damage from the outside and items that run out of warranty, especially for used items. The seller does not communicate this matter to the buyer.

Furthermore, small-medium companies sometimes increase the selling price even though they have agreed to a fixed amount before making it difficult for buyers to determine it. The sellers canceling the sale and purchase are not considered because other buyers are willing to pay a higher price. It has happened for a long time in online business dealings and will be costly to the buyer.

The sale and purchase situation can also turn into a fraudulent problem, such as the buyer providing fake online banking receipts to the seller. In addition, some sellers do not ship the product to the buyer even though the buyer has made the full payment. The transactions conducted online are not undertaken on a good platform. The Movement Control Order (MCO) period saw an increase in online transactions. As of April 2020, a total of 556 police reports had been recorded and involved a total loss of RM4.2 million related to face mask sales fraud (Fareez 2020). Before this, incidents of fraud often occurred against small traders whom suppliers deceived, and there were also scams involving the community who bought secondhand goods.

Therefore, the development of this online business understanding agreement apps allows users to conduct transactions safely without worrying about being deceived. A digital contract will be formed between the seller and the buyer to preserve both parties, and the warranty will be protected under the 'Akta Kontrak 1950' (Aziz 2003). User's data will be taken care of to avoid the risk of identity theft. They can also be used to facilitate obtaining compensation if there are parties who violate the contract agreement. If not addressed, this fraud case will make buyers lose confidence to shop online, reduce the country's source of income, and weaken the country's economic development (Mohd Fahmy, 2020).

## **2. Current Work**

### **2.1 Mutual Agreement**

The sale and purchase contract is an essential thing widely done and often done by the community. It is critical because it involves a sale and purchase agreement and the exchange of products and money. Although the transaction only consists of purchasing food at roadside stalls, contracts are still formed and bound by the 'Akta Kontrak 1950' (Aziz, 2003). A contract means an agreement between the good party and the receiving party. This agreement must be executed until the contract is completed. The parties involved in this agreement have the right to settle the contract in court (Muhammad Fathi 2016). A contract executed in a sale and purchase situation consists of the buyer's agreement to own a product by exchanging it for an agreed monetary value. The products marketed must coincide with what is advertised to safeguard the welfare of consumers under the 'Akta Perlindungan Pengguna 1999' (Ahmad Sharif, 2003).

### **2.2 Fraud in Online Business**

Fraud means the transmission of false or misleading information to profit from the loss of another person. Dewan Bahasa Dan Pustaka (DBP), in Kamus Dewan's fourth edition, defines fraud as an untrue act or a wrong word intended to mislead people (Dewan Bahasa dan Pustaka, 2020). Online fraud can be seen by losing money, products, and leakage of sensitive information such as photos of identity cards. Online fraud is widespread and favored by online fraud syndicates because of the simple and easy procedure to escape because the victim lacks evidence to catch the fraudster. If there is even evidence, the chances for the fraudster to be detected are still low.

### 3. Methodology

The Agile Model is suitable for use in the development of these apps. It is because the Agile Model has an iterative process to produce the best end product. The security of the stored data and contracts is appropriate to ensure that no vulnerabilities can be exploited and manipulated to manipulate user information. The model also has a repeated testing process at the end of one session to ensure the smoothness of the application before entering the next session to improve the application further and expand functionality in stages with the involvement of users and application builders (Isaac 2020). Moreover, any minor changes can be made without incurring high costs or making schedule amendments (Fowler & Highsmith, 2001). Figure 1 is an Agile Model consisting of five phases: analysis, design, development, test, and feedback.

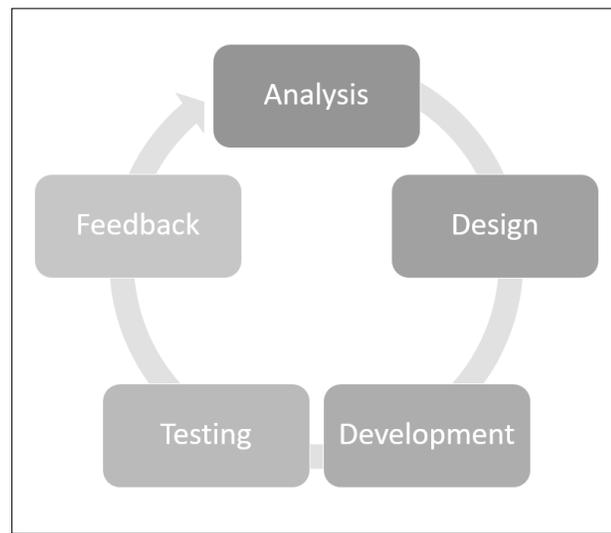


Figure 1 Agile Model  
source: Fowler & Highsmith, 2001

- a) Analysis Phase: The apps' functional requirements ensure that the developed application meets the end user's needs.
- b) Design Phase: The app's function is developed to meet the development objectives to help users sell and purchase. The databases are also designed to store user information.
- c) Development Phase: The app's development phase is developed using Android Studio software, and the database is created using Firebase.
- d) Testing Phase: A Usability Test was conducted to look at testing the usability of this system. A questionnaire was distributed to several users randomly to try and provide feedback for the completed applications.
- e) Feedback Phase: A feedback phase has been implemented for users to provide feedback on this application, and all records of user feedback will be stored and used for future improvement.

## 4. Finding and Discussion

### 4.1. Advantages of the Apps

The main advantages of this application that can be used by two end-users, namely sellers and buyers, are as follows:

- a) **Product Information:** The seller will upload the product information to be sold, and the buyer can choose to purchase the product that has been offered.
- b) **Seller Information:** Seller information will be displayed so that scammer does not deceive buyers because information such as company name, company number, address, and phone number are provided.
- c) **Digital Contract:** The Digital contract display will be available for traders to generate digital contracts with buyers. Some information needs to be filled in, such as payment method, delivery date, delivery address and destination, and penalties if the contract is breached. The contracts and agreements formed will be protected by the 'Akta Kontrak 1950', and the transactions run transparently. This digital contract will also serve as an online digital report as complete information about the transaction.
- d) **Personal Warranty:** This app is provided to help a seller who wants to warranty the goods sold. The current warranty only uses purchase receipts that sometimes do not contain any information about the dealer. The receipt is also easily lost, thus posing a disadvantage to the buyer's safety because the dealer can easily deny that the product is the trader's sale.

### 4.2. The comparison with existing Apps

The three apps Shoppe, Carousell, and Lazada compared have their advantages and disadvantages described in Table 1. The advantages of existing apps will be used as a benchmark to be improved the development of the apps.

Table 1 The comparison with existing apps

<b>Features</b>	<b>Shoppe</b>	<b>Carousell</b>	<b>Lazada</b>	<b>New Apps</b>
User Interface	Easy	Easy	Complicated	Easy
User Friendly	Yes	Yes	Not Really	Yes
Link	No	No	No	Yes
Security	Yes	Yes	Yes	Yes
Extra Charge	Yes	Yes	Yes	No
Product Warranty	Yes	Not Confident	Yes	Yes
Digital Contract	No	No	No	Yes

### 4.3. User Interface Design

The app's interface plays an essential role in communication between the user and the application. A good interface will provide a good user experience and prove that the users' functions studied can be provided. The following is the interface generated during the development phase.

a) The User Interface

The user interface function mainly purposes for sellers and customers to register as new users and log in. Figure 2 is the interface for users to log in as sellers or customers and also provides a button to register as new users. Meanwhile, Figure 3 is the interface for the user to register a new account as a seller and customer.

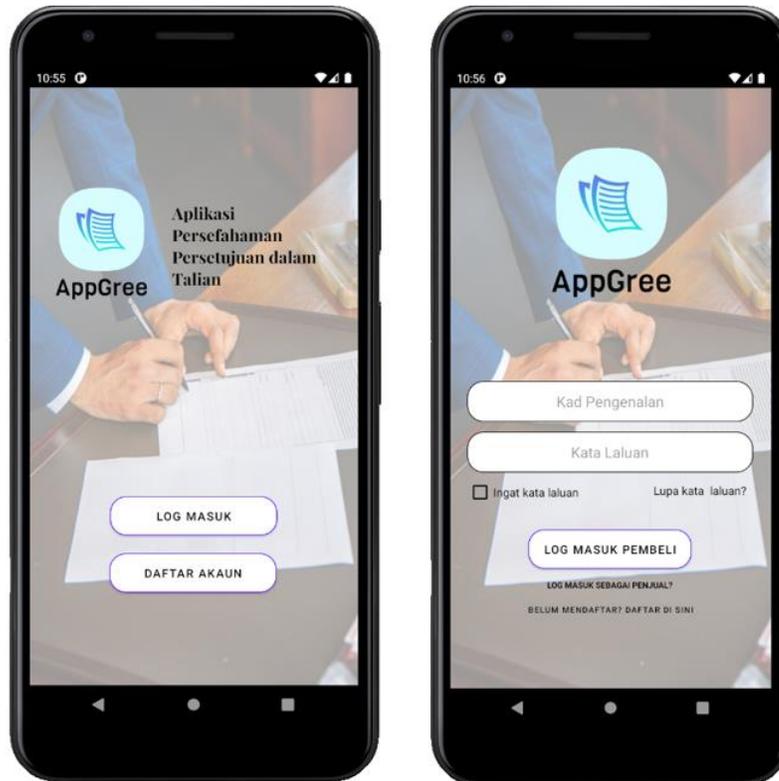


Figure 2 User interface for login and register account

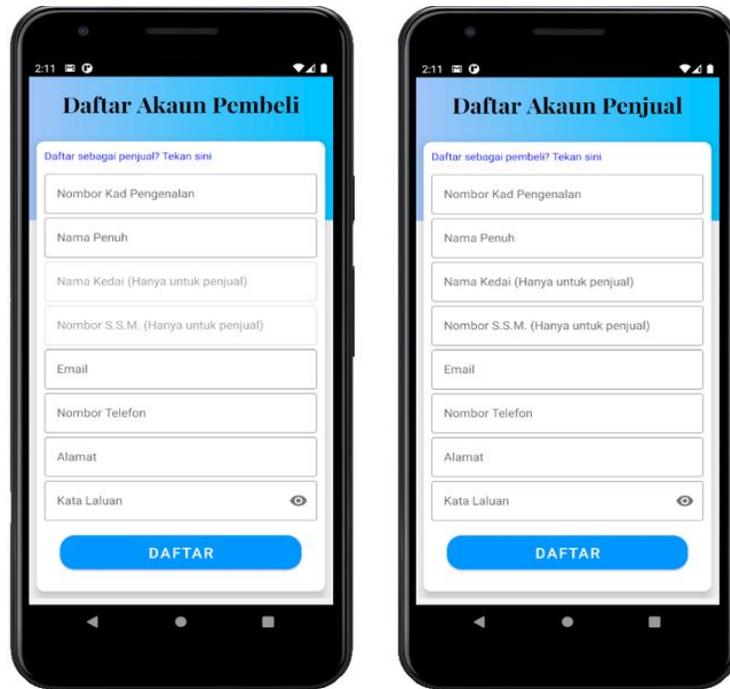


Figure 3 User interface for register account as seller or customer

b) The Main Interface

The main interface is the main page that will display after the user registers the account and logs in to the apps. Figure 4 is the main interface for the user. This main interface is different with both the user seller and customer.

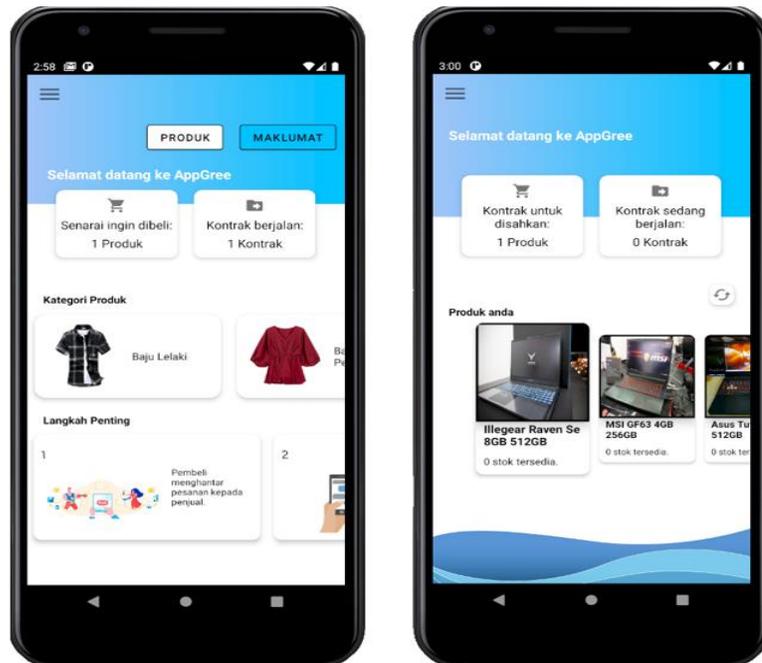


Figure 4 The main user interface after login

c) The Product Interface

If the user is a seller, the user can access the product interface to upload the new product and update the product's information. Meanwhile, if the user is a customer, the user can also access the product but only buy the product. Figure 5 is the product's interface.

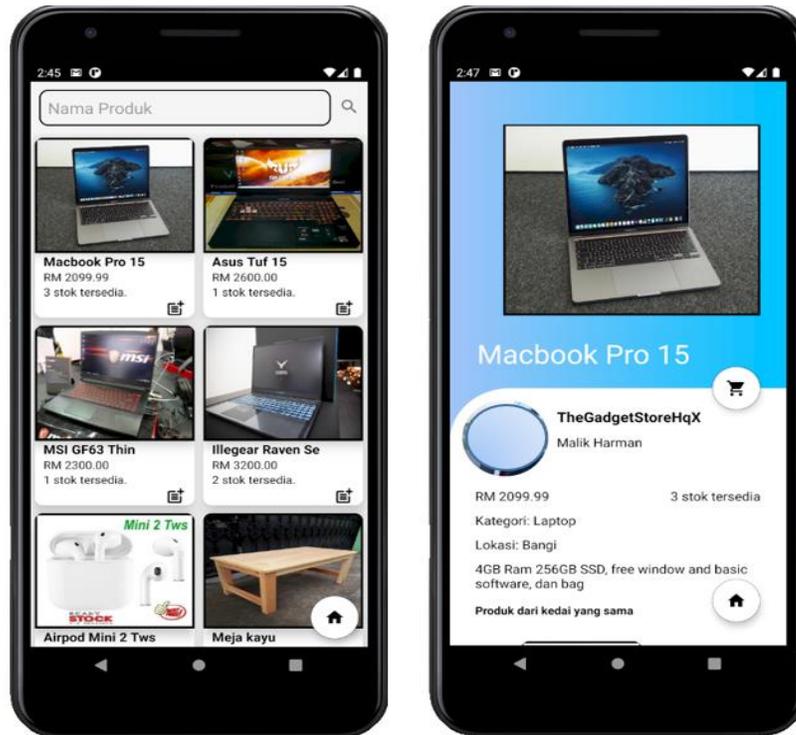


Figure 5 Interface of product

d) The Contract Digital Interface

Figure 6 is the interface for Digital Contract. Seller generated this mutual agreement to create a new contract. The information must be assigned before the seller sends the contract to the customer: product, payment, and logistics. The warranty function is also provided in the Digital Contract.

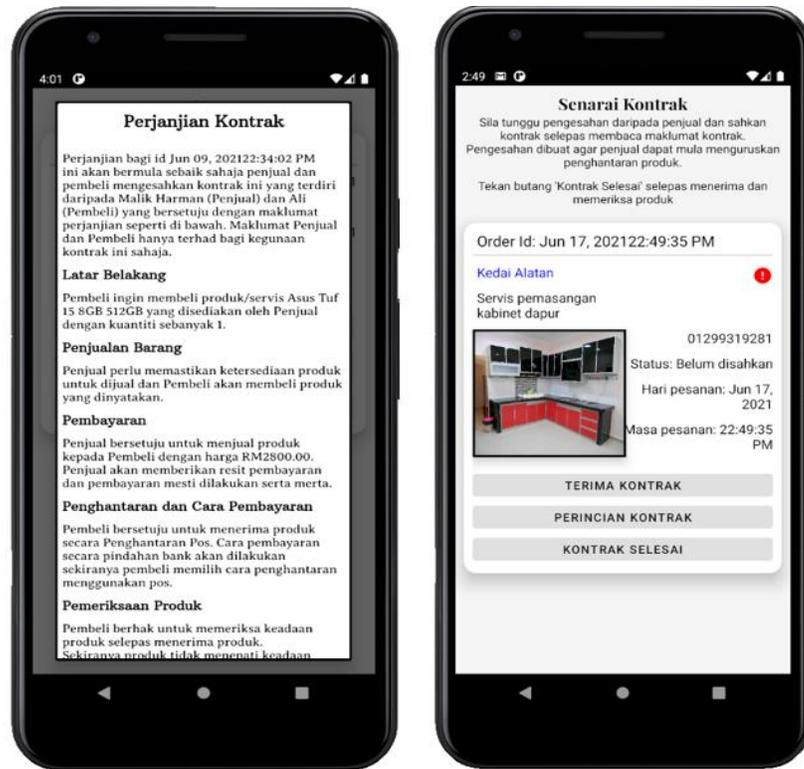


Figure 6 Interface of Digital Contract

#### 4.4. Usability of the Apps

The questionnaire was given randomly to the selected users willing to answer a series of questions and share their opinions to improve usability and user interface design. The criteria of the users are must frequently use e-commerce or m-commerce in their daily routine purchase activities. A five-point Likert scale measures the scale, where the score closest to five (5) means that the user is 'more satisfied', and the score closest to one (1) means the user is 'more dissatisfied'. Fred Davis and other scholars adapted the test script from the Technology Acceptance Model (TAM).

This paper used the TAM model to understand the system use and satisfaction by the users from the perspective of the application function usability and user interface design. The descriptive results for the usability and user interface design of the test as shown in Table 2.

Table 2: Mean and Median Analysis of Usability and User Interface Design Test

Testing	Usability	User Interface Design
Mean	4.67	3.92
Median	5	4

The results in Table 2 shows that the users are positively and likely to accept the usability of the application prototype developed. Meanwhile, the user interface design of the system also shows that the user is positively satisfied with the user interface design. In conclusion, the application prototype developed has a high potential to be adapted and used by users who frequently use e-commerce or m-commerce in their online purchase activities.

## **5. Conclusion and Future Recommendation**

This apps development study will be improved by adding other functions, such as the notification function. In addition, the development of this application is extended to users other than Android. The Digital Contract currently generated obtains the consent of the seller and the buyer through a button. However, this Digital Contract is already strong enough to be held under the 'Akta Jualan Barang 1957' because of the seller and buyer verification. The development of functions that allow sellers and buyers to generate signatures in-app can be developed to make digital contracts more complete in the future.

The apps have met the functional needs of the users as well as achieved the development objectives. The Agile model makes the application generation process run smoothly, where application testing is carried out every time the application function is completed. Any errors found subsequently will undergo a redevelopment phase to produce a function that meets the user's functional requirements. The use of digital contracts is hoped to boost the community's economy, minimal traders to attract buyers as the safety of buyers can be guaranteed through digital contracts that are complete with information on sales carried out. These apps' functionality will indirectly reduce the chances for scammers to deceive buyers as the seller's data has been recorded and stored in a database.

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