Dropship Management System

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1. Problem Statement

Most eCommerce businesses implement dropship method to operate their businesses. Dropship method works where the seller does not need to keep the product it sells in stock. The seller or dropshipper will market the product to gain customer. The order from customer will be submitted to the retailer to be delivered.

Big enterprise businesses usually have already owned an eCommerce platform and developed their own dropship system. One common way of implementing dropship method to their platform is by using referral code when checking out. Other than using eCommerce platform, some businesses are also run by direct selling from the retailer to the customer through messaging platform such as WhatsApp, Facebook, and Instagram. In this case, the businesses have their own separated seller management system[1] to manage the purchase.

However, small businesses and startups still process the order from the dropshipper manually by collecting orders through WhatsApp or Telegram. Without a proper management system, there are some problems might occur during the process:

1. **Delay in processing order and delivering information**

    Since the retailer is not communicating directly with the customer, it will take some time to deliver information between the retailer and the customer. The dropshipper might need to confirm with the retailer first regarding the products availability prior proceeding the customer's purchase.

    After the purchase, the dropshipper will send full customer details to the retailer. The retailer will process the order using the details provided and update the delivery details. The whole process can encounter a problem when the retailer needs to process several orders from various dropshippers at the same time. The retailer will take some time to group the customer order according to each dropshipper to provide the delivery details.

    Apart from that, some retailer will combine all delivery details in a list and share it to all the dropshippers. This method somehow will consume some time for the dropshippers to find their own customer details in the list.

2. **Overlapped order between dropshippers**

    In a business, the retailer can have several dropshippers under their management. Processing order from messaging platform can cause timeline error and overlapping order. Two or more dropshippers can happen to submit order of the same product at

the same time as there are no system or notification to let them know that the product is already occupied.

3. **Inventory update issues**

    By using manual method, it is difficult for the retailer to keep all the dropshippers updated regarding available products, especially when the inventory can change daily or even more frequent. When the dropshippers could not keep track of the current products in stock, a bigger problem might occur like letting the customer to purchase out of stock product.

2. Objectives

1. To develop a proper management system for small retailer to manage all purchases from dropshippers.
2. To ease the retailer and dropshipper to keep track of the products and customers' current details.

3. Proposed Features

1. Dashboard

Provides an overview of the dropship sales and store products.

2. Product Management

Allows admin (retailer) to update available products on the system.

3. User Management

Allows admin to add or remove existing dropshippers in the system.

4. Reporting and analytics

Generates sales, order, and inventory flow report directly from the system.

5. Notification system

Notifies admin regarding order submission and notifies the dropshippers when the order status has been updated.

6. Delivery tracking

Tracks each order delivery status using tracking number. Example of common platform to track parcel delivery is https://www.tracking.my/.

7. **Order Management**

   Enables dropshippers to submit order details (customer's details and product's details) to admin. Admin will process the submitted order and update the order status in the system.

8. **Marketing contents from business owner**

   Allows retailer to upload marketing contents such as product posters, description to the system.

9. **Extra features based on the business requirements**

   Provides reward system, commission calculator or store credit system suitable with the business model.

10. **Mobile App Integration**

    Integration with mobile application for ease of use.

4. Development Tools

4.1 Web Application

Front-end:

1. React.js / Next.js
2. Bootstrap 5
3. Tailwind CSS
4. ChakraUI CSS

Back-end:

1. Django (Python)
2. Firebase Cloud Storage
3. Firebase Realtime Database / SQLite3 / PostgreSQL

4.2 Mobile Application

Flutter / Swift / React Native

5. Stakeholders/Collaborators

Any SMEs or small retailer that run business without their own eCommerce platform.

6. References

[1] Mamasab Seller Management System (https://www.mamasab.com/)

[2] Tracking Malaysia (https://www.tracking.my/)