

## SURVEY ON A ANDROID BASED CLOTHING APP

Sanskar Prakash Kumbhar\*<sup>1</sup>, Rushabh Vijay Bramhade\*<sup>2</sup>, Pranav Shivprakash Waghchoure\*<sup>3</sup>, Jaishankar Swami\*<sup>4</sup>, Mahesh Kashinath Havarge\*<sup>5</sup>

\*<sup>1,2,3,4,5</sup>Dept. Of Information Technology Pimpri Chinchwad Polytechnic Pune,  
Maharashtra, India.

DOI : <https://www.doi.org/10.56726/IRJMETS45091>

### ABSTRACT

Recently, most companies have developed mobile applications since phones are the main way to use the Internet rather than computers. Based on the evidence, the year 2021 witnessed a huge increase in the number of online purchases, especially during the covid pandemic and other diseases that emerged after it. This research, therefore, aimed to develop a mobile application that can provide ease of shopping and help its users to take advantage of discount prices across their region, especially during the COVID-19 lockdown. 'Discount Guide' was a great solution during this time and forever. This application is designed to allow the seller and the buyer as well to sell or buy discounted items. This app will be built using the Kotlin language, Android studio, to design the app effectively and more easily. As a result, the customer gets the benefit from using the app for online shopping on their Android devices.

**Keywords:** Android, Application, Mobile, Firebase, Online Shopping, Smartphone.

### I. INTRODUCTION

In an era where technology has transformed the way we live, work, and interact, it's no surprise that the world of commerce has been equally influenced. Shopping for clothing and fashion items, once confined to physical stores and malls, is now undergoing a digital revolution. The "Android-based clothing store app" is a groundbreaking project that encapsulates this transformation, redefining the shopping experience for both store owners and customers alike. The Digital Transformation of Fashion Retail : A The fashion retail landscape has witnessed a seismic shift in recent years. With the proliferation of smartphones and the omnipresence of the Android operating system, consumers are increasingly turning to mobile apps for their shopping needs. This shift in consumer behavior has given rise to the need for innovative, user-friendly, and feature-rich mobile applications that bridge the gap between traditional brick-and-mortar stores and the virtual world. Empowering Store Owners : managing a clothing store involved manual processes, from inventory management to billing, and from customer data management to order fulfillment. The Android-based at the heart of this project lies the empowerment of clothing store owners. Traditionally, clothing store app offers a comprehensive solution to these challenges, equipping store owners with a suite of powerful tools and functionalities.

Adding Products with Ease : One of the pivotal functions for store owners is the seamless addition of new products to their inventory. The app provides a user-friendly interface that allows store owners to effortlessly add products. High-quality images, detailed descriptions, and pricing information can be inputted, ensuring that the store's catalog remains up-to-date and enticing to potential customers. Managing Multiple Branches : For clothing stores with multiple branches, keeping track of branch details can be a logistical challenge. This app simplifies the process by enabling store owners to add and maintain branch details. From addresses to contact information, owners can effortlessly manage the specifics of each store location, ensuring that customers have access to accurate information. Adding Products with Ease : One of the pivotal functions for store owners is the seamless addition of new products to their inventory. The app provides a user-friendly interface that allows store owners to effortlessly add products. High-quality images, detailed descriptions, and pricing information can be inputted, ensuring that the store's catalog remains up-to-date and enticing to potential customers. Streamlined Billing Process : Billing is a fundamental aspect of any retail operation. With the Android-based clothing store app, the billing process is streamlined and modernized. Store owners can send bills electronically to customers, reducing paperwork and enhancing efficiency. This digitization of billing not only simplifies administrative tasks but also provides customers with a convenient and eco-friendly experience. Customer

Relationship Management : Understanding and engaging with customers is a key driver of success in the retail industry. The app equips store owners with the ability to access customer profiles and details, facilitating personalized interactions. This valuable customer data can be leveraged for marketing efforts, loyalty programs, and improved customer service. Efficient Order Management : Managing customer orders can be a complex endeavor, especially during peak shopping seasons. The Android-based clothing store app centralizes order management, providing store owners with a clear overview of pending and completed orders. This feature enhances order fulfillment efficiency, ensuring that customers receive their purchases promptly. Generating Invoices : Accurate and transparent transactions are paramount in retail. The app simplifies the process of generating invoices for customer purchases. Store owners can create detailed invoices that provide customers with a clear breakdown of their purchases, enhancing transparency and trust.

## II. RELATED LITERATURE

**"Factors Affecting Android Based Clothing Store App."** The success and effectiveness of a clothing store app can be influenced by various factors that impact its performance, user engagement, and overall success. Here are some key factors that can affect a clothing store app: User Interface (UI) and User Experience (UX) :

-Design and Layout: An intuitive and visually appealing design with easy navigation can enhance the user experience.

-Responsive Design: Ensuring that the app functions well on various devices and screen sizes is crucial for user satisfaction. Content and Product Catalog :

-Product Descriptions: High-quality images and detailed product descriptions are essential for helping users make informed purchase decisions.

-Product Availability: Keeping the product catalog up-to-date with accurate information about availability and sizes is important.

**"ZARA Route to Success in the Indian Market: The Development of Clothing store app."** ZARA, a renowned Spanish fast-fashion brand, has taken the global retail industry by storm with its unique blend of trendy designs, affordability, and rapid inventory turnover. In its expansion strategy, entering the Indian market presented both immense opportunities and challenges. Recognizing the significance of technology and digital presence in today's retail landscape, ZARA embarked on a transformative journey by developing a clothing store app tailored for the Indian market. This strategic move played a pivotal role in ZARA's route to success in India.

The Development of the Clothing Store App:

ZARA's journey to success in India was marked by the development of a tailored clothing store app. This app was designed to cater specifically to the needs and preferences of Indian consumers while aligning with ZARA's global brand identity.

## III. OBJECTIVES OF THE STUDY

The objectives of a study related to an Android-based clothing store app typically focus on understanding, analyzing, and addressing various aspects of the app's development, usage, and impact. These objectives guide the research and investigation.

## IV. METHODOLOGY

Developing an Android-based clothing store app requires a well-defined methodology to ensure a successful outcome. Here is a methodology that outlines the key steps and considerations: 1. Project Initiation: Define Objectives: Clearly articulate the goals and objectives of the clothing store app. Determine what you aim to achieve, such as increased sales, improved customer engagement, or market expansion. Market Research: Conduct thorough market research to understand your target audience, competitors, and industry trends. Identify the unique selling points and differentiators for your app. 2. Requirements Gathering:

Define Features: Create a detailed list of features and functionalities you want to include in the app. This can include product catalog, search functionality, user accounts, shopping cart, secure payment processing, and more. User Stories: Create user stories and use cases to document how users will interact with the app and the

tasks they should be able to perform. 3. Design and Prototyping: Wireframing: Develop wireframes or low-fidelity prototypes to visualize the app's layout and user interface (UI). Focus on user-friendly navigation and an appealing design. User Experience (UX): Ensure that the app offers a seamless and enjoyable user experience, including easy navigation, responsive design for various devices, and intuitive interactions. 4. Technology Selection: Choose Development Tools: Select the appropriate development tools and technologies for Android app development, including programming languages (e.g., Java, Kotlin), development frameworks, and libraries. 5. Backend Development: Set Up Servers: Establish the backend infrastructure, including servers, databases, and APIs that will support the app's functionality. Database Design: Create a well-structured database to store product information, user data, orders, and other relevant data. 6. Frontend Development: User Interface (UI) Development: Develop the app's frontend, focusing on translating the design into a functional interface. Pay attention to visual aesthetics and responsiveness. Feature Implementation: Implement the features and functionalities outlined in the requirements, such as product browsing, filtering, and cart management.

## V. ADVANTAGES AND DISADVANTAGES

### Advantages:

For Clothing Store Owners:

- **Expanded Market Reach:** The app allows store owners to reach a wider customer base, including potential customers who prefer online shopping.
- **Increased Sales:** Online presence and mobile shopping options can lead to increased sales, especially during peak seasons and promotions. Enhanced.
- **Customer Engagement:** The app offers opportunities for personalized marketing, push notifications, and tailored product recommendations, which can boost customer engagement and loyalty. Efficient.
- **Inventory Management:** Store owners can track inventory levels in real-time, reducing the risk of overselling or understocking products.
- **Data Analytics:** Access to user data and purchase history allows for data-driven decision-making, helping owners understand customer preferences and behaviors.
- **Streamlined Operations:** The app simplifies tasks such as billing, order management, and customer communication, making operations more efficient. Reduced.
- **Administrative Costs:** With electronic billing and automated processes, administrative costs related to paperwork and manual tasks can be reduced.

For Customers:

- **Convenience:** Customers can shop for clothing and fashion items from the comfort of their homes or on the go, saving time and effort.
- **Wide Product Selection:** The app offers access to a diverse catalog of clothing items, sizes, colors, and styles, providing more choices than a physical store.
- **Personalization:** Users receive personalized product recommendations based on their preferences and purchase history, making shopping more relevant and enjoyable. Easy
- **Search and Filtering:** Users can easily find products using search and filtering options, saving time and frustration.
- **Secure Transactions:** Trusted payment gateways ensure secure online transactions, giving customers peace of mind.
- **Real-time Information:** Customers can check product availability, branch locations, and operating hours in real-time, reducing uncertainty.
- **Customer Support:** In-app customer support, including chatbots and direct communication channels, offers assistance and resolves queries promptly.
- **Access to Reviews:** Users can read product reviews and ratings from other customers, aiding in informed decision-making.
- **Notifications:** Push notifications keep users informed about discounts, promotions, and new arrivals, enhancing the shopping experience. Environmental

- Impact: Online shopping can reduce the environmental impact associated with traditional brick-and-mortar retail, such as commuting and packaging waste.

## VI. REQUIREMENT ANALYSIS

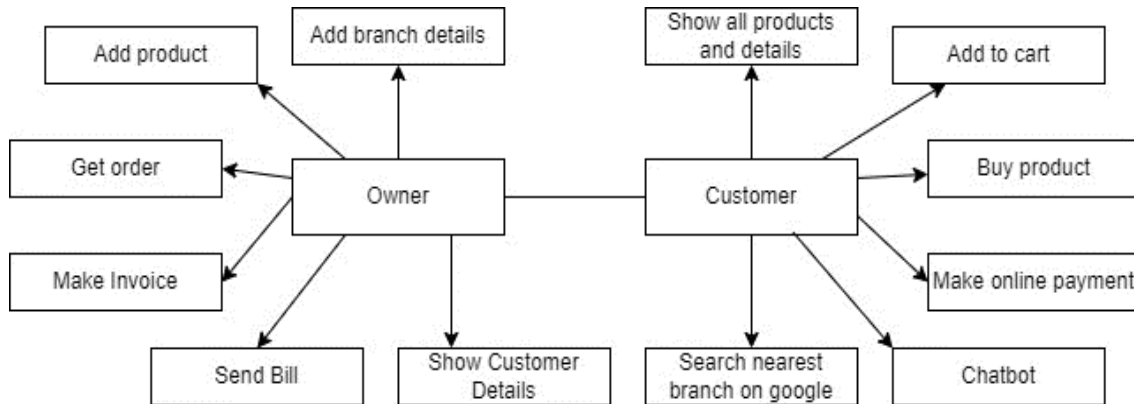
### Functional Requirements

- User Registration and Authentication: Users should be able to create accounts with profile information. Secure authentication mechanisms, like email verification or two-factor authentication, should be implemented.
- Product Catalog: Display a well-organized catalog of clothing items. Include product details, images, prices, sizes, colors, and availability status. Enable users to view product descriptions, specifications, and customer reviews.
- Search and Filter Functionality: Implement a robust search feature with auto-suggestions. Allow users to filter products by category, size, color, price range, and brand.
- Product Details: Provide detailed product information, including material, care instructions, and sizing charts. Enable users to zoom in on product images for a closer look.
- User Cart and Checkout: Allow users to add products to their cart. Implement a shopping cart that displays selected items, quantities, and total prices. Enable users to proceed to checkout, review their orders, and make payments.
- Payment Processing: Integrate secure payment gateways, including credit/debit card processing and digital wallets (e.g., PayPal, Google Pay).
- Ensure PCI DSS compliance for handling payment data.
- Order Management: Enable users to view their order history and order status. Send order confirmation emails and notifications.
- Branch Locator: Integrate location-based services to help users find the nearest physical store branches. Provide branch details, including addresses, contact information, and operating hours.
- User Profile and Preferences: Allow users to manage their profiles, including personal information, shipping addresses, and payment methods. Implement notification preferences and communication settings.
- Push Notifications: Send push notifications for promotions, order updates, and new arrivals. Give users the option to opt in or out of notifications.
- Customer Support: Offer in-app customer support channels, such as chat, email, or a helpline. Provide an FAQ section to address common user queries.
- Feedback and Reviews: Allow users to rate products and leave reviews. Implement a system for reporting inappropriate content or reviews.

### Non-Functional Requirements:

- Performance: Ensure fast loading times and smooth navigation.
- Optimize resource usage to prevent app slowdowns.
- Security: Implement data encryption for user data and payment information.
- Protect against common security threats, such as SQL injection and cross-site scripting (XSS).
- Scalability: Design the app to handle increased user traffic and growing product catalogs.
- Scale backend infrastructure as needed.
- Compatibility: Ensure compatibility with a range of Android devices, screen sizes, and OS versions.
- Offline Access: Provide limited offline access, such as the ability to view previously browsed products and saved items in the cart.
- Privacy: Comply with data protection and privacy regulations, including GDPR or relevant local laws.
- Localization: Support multiple languages and regions to cater to a global audience.
- User Analytics: Implement analytics tools to track user behavior, monitor app performance, and gather insights for improvements.
- Maintainability: Establish a plan for regular app updates, bug fixes, and security patches.
- User Training and Help: Provide user guides or tutorials to help users navigate the app effectively.
- Legal Compliance: Adhere to legal requirements, such as consumer rights, taxation, and data storage regulations in relevant regions.

**VII. ER DIAGRAM**



**VIII. CONCLUSION**

The device and the app are linked, and the user may select discounted items from the app and manually add them to the app. The shopping experience has been safer, easier, quicker and more convenient as a result of the goods. Compared to many current technologies and applications on the market, the overall cost of putting this notion into action is far cheaper. As a consequence, this software is easy to use at supermarkets, food stores, clothes stores and electronics stores. The app is intended to be a useful tool for owners and customers all together. Created for the benefit of the customers from finding the discounted products in the region, the attention might seem concentrated on the customers, but in fact, owners play a big role in the application, as they are the ones that populate the app with discounted products that users can buy them. The advantages of the system are that it provides security; it is time efficient; it is easily accessible; and it provides data privacy.

**ACKNOWLEDGEMENT**

I would like to express my gratitude to Mr. Jaishankar Swami, for his valuable guidance and support throughout the research process. His expertise and mentorship have been helped to this study. I am deeply appreciative of his time, patience, and encouragement, which have contributed significantly to the completion of this research paper.

**IX. REFERENCES**

- [1] [www.youtube.com](http://www.youtube.com)
- [2] <https://developer.android.com>
- [3] [www.trends.ajio.com](http://www.trends.ajio.com)
- [4] [www.zara.com](http://www.zara.com)
- [5] [www.google.com](http://www.google.com)