

VIVA-VOCE

Enhancing Customer Outreach By Using Social Media Platforms

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Introduction

E-commerce has become a major force in today's digital landscape, transforming the way customers engage with products and shop. Customers now have unparalleled access to a wide range of products and services thanks to the growth of online shopping platforms, which also enable them to buy products from the comfort of their homes. But there are drawbacks to this ease as well, chief among them being the deluge of possibilities and the problem of finding the best deals on the things one wants. Effective price comparison tools are becoming more and more necessary as people look for value for their money. Titled "Scraping Flipkart, Amazon, and Croma for E-Commerce Price Comparison," satisfies this demand by creating a reliable system that gathers and contrasts product prices from Flipkart, Amazon, and Croma— the three most well-known e-commerce sites in India.

The increasing use of smartphones, better internet access, and shifting consumer habits are just a few of the reasons contributing to the growth of e-commerce. Due to the convenience of online shopping, which enables customers to browse and buy things whenever and wherever they choose, consumers are more likely to shop online these days. However, buyers frequently have a dilemma when



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deciding where to purchase a product due to the abundance of e-commerce websites available. It can be difficult for customers to get the best bargain because different platforms may offer different discounts, prices, and delivery choices. This is where price comparison websites come into play. They are useful resources that make buying easier by giving customers a single location to compare costs from several businesses.

This the initiative's emphasis on the three main e-commerce sites, Flipkart, Amazon, Ajio and Myntra is one of its main advantages. With distinct advantages and features, every one of these platforms targets various market niches. For example, Amazon is renowned for its wide selection and customer-focused practices, while Flipkart is known for its wide assortment of products and competitive pricing. On the other hand, Croma offers customers a dependable source for tech-related products because of its expertise in electronics and appliances. The suggested method provides a thorough picture of the market by combining data from all three platforms, enabling customers to compare costs for a wide range of goods.

Websites that compare prices have grown in popularity because they enable customers to make well-informed judgments about what to buy. These websites let consumers to view product prices side by side, assisting them in selecting the most economical solutions



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by combining data from multiple e-commerce platforms. Furthermore, a lot of price comparison websites provide services like price notifications, which alert consumers when a product's price falls to a predetermined point. This feature not only makes shopping more enjoyable, but it also motivates customers to make more deliberate purchases, which eventually results in cost savings. The suggested solution uses web scraping methods to get real-time data from Croma, Amazon, and Flipkart. Web scraping is the process of automatically extracting data from websites in order to efficiently obtain product details such as availability, prices, and descriptions



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Literature Review

Social Media Platform:

In the context of social media, consumer engagement has taken shape on multiple platforms, including Facebook, Instagram, Twitter, and YouTube. According to Devereux, social media platforms such as Facebook, which enjoys the highest levels of engagement as compared to other sites, can benefit businesses including large and small enterprises to connect deeply with consumers through constant engagement [6]. Consumers can express themselves through their reactions to content being published on an entity's social media platforms, where they can use elements, such as likes, comments, shares, and emojis that help express various emotions. This kind of interaction can guide companies on their relationship with their consumers and gaps that might require fixing to maintain a healthy relationship.

In modern-day marketing, social media has become a central point of interaction between clients and companies that seek to provide outstanding customer experience.

Understanding Social Media Marketing 3023



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and grow sales. Valos argue that the integration of social media tools into marketing practices is on the rise despite not having fully established a remarkable presence [1]. In their study seeking to deepen the knowledge of social media applications in marketing, the authors explore the use of social media marketing in relation to communication methods and the effectiveness of these platforms in boosting performance. The research concluded that social media channels may yield massive benefits in terms of customer engagement performed through linking multiple companies' online platforms in a move that strives to create harmony across all management levels and maintain close links with consumers. Consumers are usually encouraged to share honest reviews to give companies an accurate picture of their products or services and the extent to which they are addressing their clients' needs. From this approach, one might argue that the growth of social media is a blessing to organizations in terms of their level of consumer engagement and real-time feedback on various products and services.



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Research Gaps Identified

Despite the advancements in price comparison tools and e-commerce platforms, several research gaps persist in existing methods that hinder a fully optimized shopping experience. Current solutions, such as price comparison websites and browser extensions, often lack Real-time integration with multiple platforms like Amazon, Flipkart, Myntra, and Ajio. These tools typically provide static or delayed price information, failing to reflect dynamic price changes or offer updated availability details.

Another significant gap lies in the lack of user-specific personalization. While some tools allow users to search for products, they rarely include features for submitting specific requests for unavailable items or notifying users when those items become available. This absence of proactive user engagement results in missed opportunities for enhancing customer satisfaction.



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Mobile applications, though popular for their convenience, often focus on individual platform integration rather than a unified cross-platform experience. Existing apps tend to emphasize specific functionalities, such as cashback offers or single-store browsing, rather than providing a holistic shopping solution.

Existing methods for enhancing customer outreach using social media include:

1. Social media monitoring: This involves tracking and analyzing social media conversations about a brand or product to gain insights into customer sentiment and preferences.
2. Social media advertising: This involves using social media platforms to create and display ads that target specific customer segments.
3. Social media engagement: This involves actively engaging with customers on social media platforms through comments, likes, and shares to build relationships and foster loyalty.



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4. Social media influencer marketing: This involves partnering with social media influencers to promote a brand or product to their followers.
5. Social media content marketing: This involves creating and sharing valuable, relevant, and consistent content on social media platforms to attract and engage customers.



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Proposed Methodology

The proposed methodology involves developing a Flutter-based mobile application that consolidates the best deals and prices from leading e-commerce platforms like Amazon, Flipkart, Myntra, and Ajio. The application is designed to address the research gaps identified in existing solutions by providing real-time integration, user-specific personalization, and a seamless shopping experience.

The app architecture will use APIs to fetch real-time product data, including prices, availability, and offers, from multiple platforms. A centralized search engine within the app will enable users to find products across all integrated platforms, eliminating the need to switch between different apps.

To address the issue of unavailable products, a request-and-notification system will be implemented. Users can submit requests for products that are currently unavailable, and the app will track these requests in the backend. Once the product becomes available, the user will receive a notification through the app's notification page, ensuring timely updates.



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Benefits:

1. **Time Saving:** Users can compare prices across multiple platforms like Amazon, Flipkart, Myntra, and Ajio in one app, eliminating the need to browse each site individually.
2. **Cost-Efficiency:** By discovering the best deals and lowest prices, users save money on their purchases without missing out on discounts or offers.
3. **Convenience:** A centralized platform for price comparison and product discovery simplifies the shopping experience
4. **WideSelection:** Access to multiple e-commerce platforms ensures a broader range of products and styles to suit every need.
5. **Transparency:** A clear, unbiased comparison is provided, helping users trust they are getting the best deal.



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Objectives

The primary objective of this Flutter-based application is to provide users with a centralized platform for discovering the best deals and lowest prices across popular e-commerce platforms such as Amazon, Flipkart, Myntra, and Ajio. By addressing the limitations of existing methods, the app aims to streamline the online shopping experience through enhanced convenience and efficiency.

Key objectives include:

1. ****Centralized Search Functionality****: Enable users to search for products across multiple platforms in one place, eliminating the need to switch between different applications.
2. ****Real-Time Price Comparison****: Provide accurate and up-to-date price information and availability details to assist users in making informed purchasing decisions.



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3. ****Request and Notification System****: Allow users to submit requests for unavailable products and receive timely notifications when those products become available, ensuring a proactive shopping experience.
4. ****Personalization****: Incorporate user-specific features such as saved preferences, search history, and tailored recommendations to enhance engagement and satisfaction.
5. ****User-Friendly Interface****: Design an intuitive and aesthetically pleasing UI/UX that promotes seamless navigation and accessibility.
6. ****Time and Cost Savings****: Optimize the shopping process to help users save time and money by consolidating all essential information in a single application.

The centralized search functionality aims to simplify the shopping process by enabling users to conduct cross-platform searches within a single interface. This feature includes advanced filtering options by category, price range, brand, and user reviews. As well as suggestions for searching based on trending products and personal preferences.



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System Design & Implementation

The proposed system is designed as a Flutter-based mobile application that consolidates shopping experiences across multiple e-commerce platforms. The system architecture includes the following key components:

1. ****Frontend Design****:

- Developed using Flutter to ensure a cross-platform, responsive user interface.
- Features include a centralized search bar, notification page, and user-specific dashboards for saved preferences and requests.
- Intuitive UI/UX design ensures seamless navigation, with visually appealing layouts and easy access to core functionalities.

2. ****Backend Integration****:

- Utilizes APIs provided by platforms such as Amazon, Flipkart, Myntra, and Ajio for fetching product data in real time.



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- Implements a database for storing user requests, search history, and personalized settings.
- Backend logic handles product availability tracking, notification scheduling, and search query optimization.

3. ****Request and Notification Module****:

- Users can submit requests for unavailable products via a dedicated interface.
- A backend process monitors product availability and triggers notifications when requests are fulfilled.
- Notifications are displayed on a notification page, ensuring users stay informed.

4. ****Implementation****:

- Development follows the Agile methodology, ensuring iterative progress with regular feedback.
- Testing includes unit tests for functionality, integration tests for API connectivity, and user testing for UI/UX evaluation.



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The system integrates real-time data with user-centric features to deliver a comprehensive, efficient, and personalized shopping experience.



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Timeline of Project

TASK	STATUS	Review 0	Review 1	Review 2	Review 3	final
Requirment Analysis	Completed					
Assignments	In Progress					
Homepage Design	Not Started					
Product List Page Design						
Individual Product Page Design						
Contact Page Design						
Static Pages Template Design						
Homepage Coding						
Product List Page Coding						
Individual Product Page Coding						
Contact Page Coding						
Static Pages Template Coding						
Product Catalogue Updating						
Testing						
Deploy						



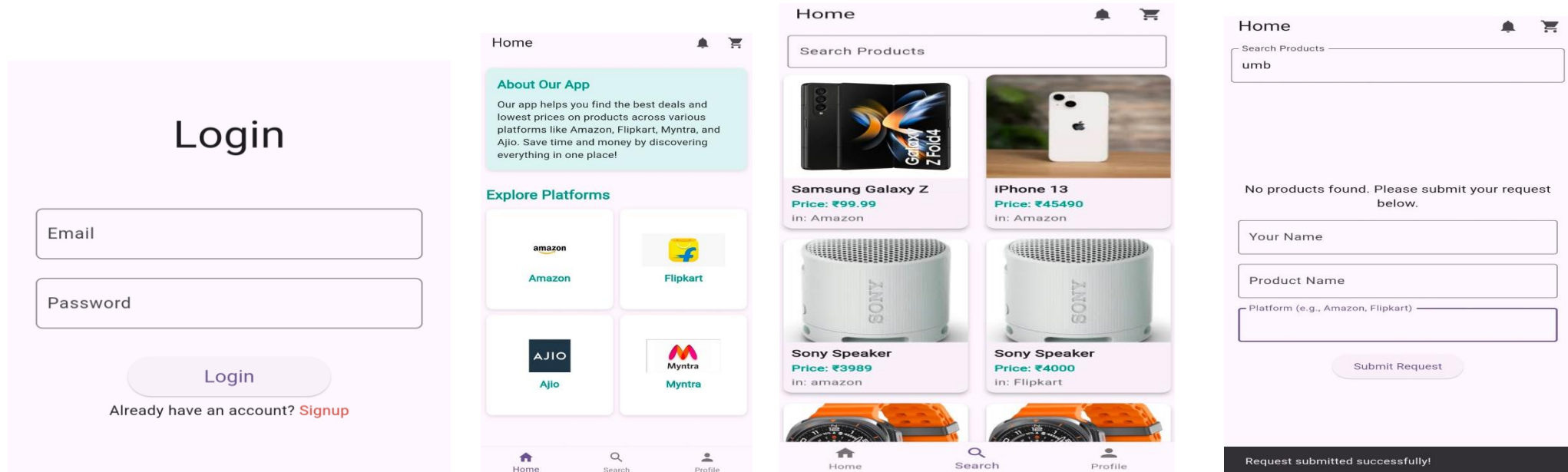
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Outcomes / Results Obtained



The implementation of this Flutter-based app will result in a transformative shopping experience for users, addressing existing gaps in e-commerce solutions.

The key outcomes include:

1. ****Centralized Shopping Experience****: Users will gain access to a single platform for searching and comparing products across multiple e-commerce platforms, significantly reducing the time and effort required for online shopping.
2. ****Real-Time Price and Availability Updates****: By integrating APIs from leading platforms, the app will provide users with product details, enabling customers to make decisions.
3. ****Enhanced User Engagement****: The request-and-notification system will keep users informed about the availability of desired products, fostering trust and satisfaction. This proactive engagement will improve user retention and loyalty.



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4. ****Personalized Shopping****: Features such as saved searches, tailored recommendations, and user-specific notifications will cater to individual preferences, offering a highly customized shopping experience.
5. ****Cost and Time Savings****: Users will save money by discovering the best deals in one place and avoid unnecessary delays by receiving timely product updates.
6. ****Improved User Experience****: With its intuitive design and seamless functionality, the app will provide a smooth and enjoyable shopping journey.

Overall, the app will set a new standard in online shopping by offering a holistic, user-centric, and efficient solution.



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Conclusion

In conclusion, the price comparison website effectively tackles the difficulties encountered by shoppers when traversing the extensive range of e-commerce platforms. The system gathers product data from various sources by using web scraping and crawling techniques. This makes it simple for customers to compare prices and locate the greatest offers in one place. This project is an example of how technology may enhance the efficiency of online shopping while also making the purchasing experience easier for users. These kinds of technologies will be essential in assisting customers in sorting through their alternatives and streamlining their purchasing techniques as e-commerce expands.

The development of this Flutter-based shopping app successfully addresses the gaps in existing online shopping solutions by offering a centralized, user-centric platform for comparing prices and deals across multiple e-commerce platforms such as Amazon, Flipkart, Myntra, and Ajio.



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By integrating APIs from leading platforms, the app delivers accurate, product details, allowing users to make product purchasing decisions. The intuitive UI/UX design simplifies navigation and provides a seamless shopping journey, further increasing user satisfaction. The request-and-notification feature adds value by proactively engaging users, saving time, and ensuring convenience.

This project was made possible through effective collaboration among team members, who leveraged their expertise in backend integration, UI/UX design, and testing. Despite challenges such as managing API limitations and ensuring real-time data accuracy, the iterative development approach allowed us to deliver a high-quality solution.



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In conclusion, this app not only simplifies the online shopping process but also sets a new benchmark for personalization and efficiency in e-commerce. It is a versatile and indispensable tool for modern shoppers, demonstrating the potential for further innovation in this domain.



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References

- [1] Shaikh, A., Khan, R., Panokher, K., Ranjan, M. K., & Sonaje, V. (2023). E-commerce Price Comparison Website using Web Scraping. International Journal of Innovative Research in Engineering & Multidisciplinary Physical Sciences, 11(3).
<https://doi.org/10.37082/ijirmps.v11.i3.230223>
- [2] Dharmik, H., Padmane, P., Dhoke, K., Chambhare, S., & Kohad, D. (2022). A Review on E-commerce Price Evaluation System. International Journal for Research in Applied Science and Engineering Technology, 10(5), 4890–4893.
<https://doi.org/10.22214/ijraset.2022.43321>
- [3] The use of web scraping in computer parts and assembly price comparison LR Julian, F Natalia - 2015 3rd International Conference on ..., 2015 - ieeexplore.ieee.org



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[4] Shridevi Swami , Pujashree Vidap ,” Web Scraping Framework based on Combining Tag and Value Similarity” Proceedings of the IJCSI International Journal of Computer Science Issues, Vol. 10, Issue 6, No 2, November 2013.

[5] Shalini, A., and Ambikapathy, R. "E-Commerce Analysis and Product Price Comparison Using Web Mining." International Journal of Research Publication and Reviews, vol. 3, no. 6, June 2022, pp. 36203623. ISSN: 2582-7421.

[6] O. S. Al-Mushayt, W. Gharibi and N. Armi, "An E-Commerce Control Unit for Addressing Online Transactions in Developing Countries: Saudi Arabia—Case Study," in IEEE Access, vol. 10, pp. 6428364291, 2022, doi: 10.1109/ACCESS.2022.3180329.



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We are pleased to inform you that your paper titled Enhancing Customer Outreach By Using Social Media Network has The editorial team has made a preliminary acceptance of your title based on paper submission and hence you have been asked to proceed with the registration process for the conference within Jan 11th 2025 at the "First National Conference on Innovations in Computing and Intelligent Systems (NCICIS -2025) in association with IEI, Chennai during February 6 - 7, 2025 organized by the Department of Computational Intelligence, School of Computing, SRM Institute of Science and Technology, Kattankulathur.

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Thank You



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