# Mobile Application for Online Shopping

Subangan[a], Sathurshan[b] and Jerom[c]

[abc]*Department of Physical Science, Faculty of Applied Science, Vavuniya Campus of the University of Jaffna.*

*subangan01@gmail.com

sathurshannn@gmail.com

yo.jerom311@gmail.com

## Introduction

In the present digital world of communication, mobile apps have become the major force driving growth in the E-commerce sector. The key attempt is to develop a mobile app which facilitates online shopping decision process by real-time decision making and identify the factors that motivate online customer's decision whether for buying online or not. Even though many online shopping sites have their own applications in the Google play store, there is no any application which amalgamates all the online shopping sites in a single place. Therefore, it is inconvenient that the buyers have to go through each and every online shopping applications to compare the product before purchasing and the unavailability of real-time reviewing facilities will let the consumer expectations down. There are no facilities where customers can chat about products through current online shopping applications.

Hence, the proposed application intends to amalgamate some popular online shopping sites in a single place. The proposed android application mainly focusses on visualizing products details under one roof for customers to perform prior decision before the shopping and sharing the buyer experience with friends who are willing to give suggestions about the product in real time. Further, the buyer can check the product in different online stores as well as the reviews on that product while facilitating the local market to publish items on the application.

## Objectives

- To collaborate with multiple online shopping websites in one application.
- To share the ideas of recommenders and buyers on the products.
- To check the availability of the product in other sites at the same time and compare its specification then display it.
- Any user who wants to sell their items can publish them on our application where customers have to deal with the seller directly.

## Literature Review

Mobile apps rely on the smartphone's native code, creating a self-contained user interface, whereas mobile websites rely on HTML (Charland and Leroux, 2011). Apps "move e-commerce off the Web and onto a more secure mobile Internet platform. They cut through the clutter of domain-name servers and uncalibrated information sources, taking the user straight to the content he or she already values" (Johnson, 2010). Compared to traditional mobile websites, mobile apps provide several advantages for marketers because mobile apps offer greater security features as well as allow consumers to bypass competitor's information and go directly to the marketer's self-contained environment. Among the marketplace leaders in smartphone operating systems – Apple's iOS and Google's Android. Based on device sales, the three most common operating systems are Apple's iOS for its iPhone, the Blackberry OS used on Blackberry devices and Google's Android OS, which is used on a variety of manufacturer's phones. Finally, it would be expected that as users engage in search-related behaviours then users would be more likely to complete the purchase because users would have received some feedback to assist the user in deciding to complete the purchase. There are some existing Android applications for online shopping. 'Amazon shopping' which allows the customers to shop millions of products from Amazon sites around the world. The customers can search and get the results according to the locations through 'Pro App for Craigslist' [8]. The 'eBay' provides a facility to the customers, not only order and buy the products but also 'market their products also [9]. 'Etsy is the marketplace of the handmade, vintage and creative goods [10]. 'Newegg' is the best shopping app for electronic products [11]. The proposed mobile application combines the search result of eBay and Walmart together and provides more reviewing facilities to the customers. In addition, the application also provides a marketplace to the customers to sell their products also.

## Methodology

The proposed android mobile app mainly designed for sharing the buyer experience with friends who are willing to give suggestions about the product in real time and also the buyer can check about the product in different online stores as well as the reviews on that product while facilitating the local market to publish items on our android application where customers have to purchase those items directly from the seller. Therefore, the mobile app makes easily the customer purchase decision through the smartphones.

## Technical factors used in the development of a mobile app

- Java
- JSON (JavaScript Object Notation)
- Walmart API
- eBay API
- YouTube API
- FIREBASE
- android platform version 2.3
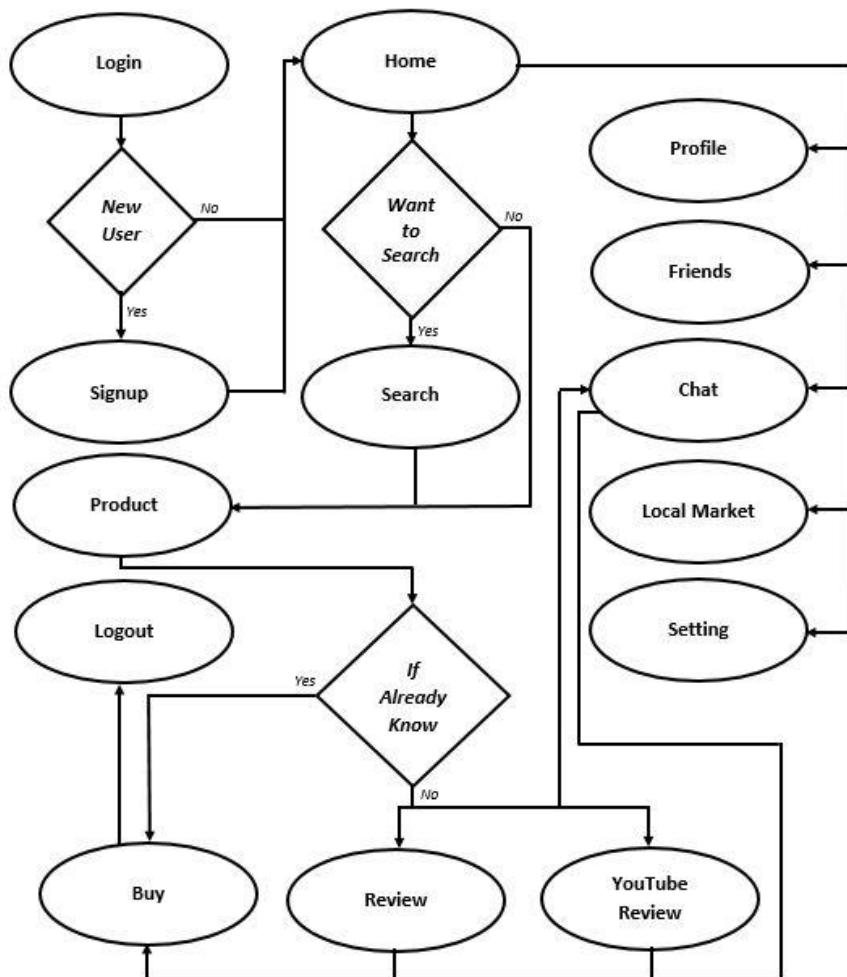
## Flow diagram of the proposed mobile app



*Fig3: Functionality of the Mobile App*

**Results and Discussion**



Figure 4: Results view of Mobile App

A typical searching based on the keyword and price range result on the online shopping sites and local market given an in the above Figure 2. The search result window will mainly display the image of the product, product name, product brand, price range and ratings. On the top of the window, it will show all the online shopping sites in our application as tabs. It will only show Walmart, eBay and local market tabs for the time being. When we get to add the other online shopping sites to the application, they will be shown on the top of the window.

**Benefits of the mobile application**

1. Searching at multiple platforms at the same time
2. Comparing prices and reviews
3. Item availability in different platforms
4. View the customer reviews from non-related to online shopping platform (YouTube)
5. Customers can market their products to others

6. Comparing the local market price with other big online shopping platforms
7. This application does not store the user personal information details so the user detail is not going to be shared with anyone

**Conclusion & Future Works**

The application, which improves the trustworthiness of the action of purchasing goods or services from various merchants over internet with the facility to compare products specification with the other online stores at a single place and also this system enhances the effectiveness of the online shopping by allowing a single to take suggestions in real time or simultaneously from friends and many customers who already experienced the product. The users are provided with the product image, name, brand, price range and ratings where they can use them to compare products. Our application provides the opportunity to the users to chat about products with friends and also the application allows the user to review the products and check the reviews of other users on products. The users have been provided with a special facility of visual reviewing from YouTube about the selected product and also, it facilitates the local sellers to publish items through our android application where customers have to purchase those items directly from the seller. In the feature, it is recommended that the creation of evaluation framework to test and compare the performance of the proposed mobile apps with the existing mobile apps in terms of performance factors and also customer behaviour patterns and purchasing patterns should be predicted by using machine learning techniques.

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