

# A Survey Paper on Price Comparison Website

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**Abstract-** Price comparison sites are designed to compare the price of goods and services from a range of providers, which will help consumers in making decision to choose products that will save their money through online. Considering the customers' busy lifestyle especially those who are living in the city area, most of the consumers prefer to buy their needs through the internet because it save their time. Besides, consumers always go for the cheaper price in purchasing products therefore by using price comparison website, customers don't have to travel from shop to shop only to survey the price offered by different shops for the same product.

They can just check it from the price comparison website itself and decide where they should buy the products they need. This project, named as *thegadgetzone.com* is the place where shoppers could find the great deals on the home groceries products. The best deals will be clearly highlighted. Even though not all consumers are buying online, but it is one of the ways to help consumers increase their price awareness. Consumers have the right to know whether the price they are seeing in the shops are good deals as it is claimed or not.

**Keywords-** affiliate marketing, e-commerce, price comparison website

## I. INTRODUCTION

A price comparison website is a platform that allows users to compare the prices of products or services from various retailers or service providers. These websites typically aggregate information from multiple sources to provide users with an overview of the pricing landscape for a particular product or service. Users can search for a specific product or service on the website, and the platform will present a list of options from different retailers or service providers, along with the corresponding prices. This enables users to quickly compare the prices and features of each option and make an informed decision about where to buy. Price comparison websites can cover a wide range of products and services, from electronics, appliances, and clothing, to travel bookings, insurance, and financial products. They are a popular resource for consumers looking to save money and make informed purchasing decisions.

With our user-friendly interface, you can easily compare prices of products across different retailers and brands, helping you make informed decisions while saving time and money. Our database features a wide variety of products ranging from electronics, clothing, home appliances, and much more, ensuring that you find everything you need in one place. Our team of experts continually monitors the prices of the products to ensure that you get the most up-to-date information, ensuring that you always get the best deal. Whether you're looking for the latest tech gadget, a new wardrobe, or a home appliance, we have got you covered.

## II. LITERATURE SURVEY

Price comparison websites (PCWs) have become an increasingly popular tool for consumers to find the best deals on products and services. This literature survey will examine the existing research on PCWs and identify the most effective methods for price comparison. The search strategy for this literature survey involved using several academic databases such as Google Scholar, ScienceDirect, and JSTOR, as well as online search engines such as Google and Bing. The inclusion criteria for sources were: research articles and reports published in the past 10 years, written in English, and focused on PCWs.

Several studies have explored the use of PCWs by consumers. For example, a study by Hinson et al. (2018) found that consumers who use PCWs are more likely to make informed decisions and save money compared to those who do not. Additionally, another study by Lee and Kim (2019) found that consumers who use PCWs are more satisfied with their shopping experience and more likely to return to the website for future purchases.

Several studies have explored the user experience of PCWs. For example, a study by Seckin and Ozdemir (2020) found that website design and usability are important factors in determining user satisfaction and loyalty. Another study by Xu et al. (2019) found that personalized recommendations and social features can improve the user experience and increase engagement.

Several methods for price comparison on PCWs have been identified in the literature. One common method is web

scraping, which involves automatically extracting data from multiple websites to compare prices. A study by Kocabasoglu-Hillmer and Gunduz (2020) found that web scraping is an effective method for price comparison, but there are limitations related to data quality and accuracy. Another method is crowdsourcing, which involves relying on user-generated content to compare prices. A study by Park et al. (2021) found that crowdsourcing can be effective in identifying price changes and trends, but there are limitations related to data reliability and bias.

### III. PROPOSED SYSTEM

The website will use a combination of web scraping and crowdsourcing methods to collect data and provide users with accurate and up-to-date information.

This component will use web scraping techniques to collect data from multiple retailers and marketplaces. The data will include product information, prices, and availability. The component will also use crowdsourcing techniques to collect data from users about price changes and trends.

**Data Processing:** This component will process the collected data to ensure accuracy and completeness. The component will also use machine learning algorithms to identify patterns and trends in the data.

**User Interface:** This component will provide users with a user-friendly interface to search for and compare prices of products and services. The interface will include personalized recommendations, social features, and user reviews.

The proposed system will provide several benefits to users:

**Time-saving:** Users will be able to compare prices of products and services across multiple retailers in one place, saving them time and effort.

**Cost-saving:** Users will be able to find the best deals and save money on their purchases.

**Convenience:** The system will provide users with personalized recommendations and social features to help them make informed decisions. **Accuracy:** The system will use web scraping and crowd sourcing techniques to ensure accurate and up-to-date information.

The system will display prices of products and services across multiple retailers, allowing users to compare prices and make informed decisions. **Personalized Recommendations:** The system will use machine learning algorithms to provide users with personalized

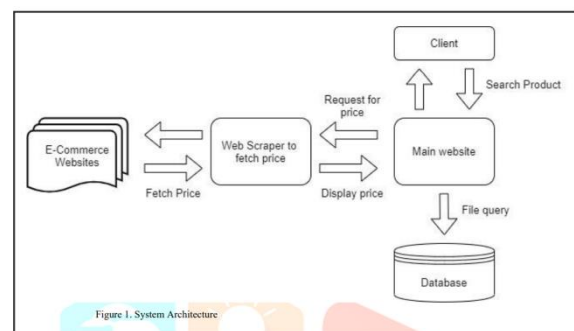
recommendations based on their search history and preferences. The system will include social features such as user reviews, ratings, and comments to provide users with additional information and insights.

The system deals with price comparison engine. The first thing required are to gather large amount of data from different ecommerce websites. It is not possible to manually collect the data from websites. Hence the best way is to create a web crawler that will navigate to these e-commerce websites. The fetched URLs are sent to scrapper for scrapping process.

### IV. ARCHITECTURE DIAGRAM

The system architecture and detailed operation are shown in Figure 1. The backend system uses web crawling and scraping techniques to gather product information from various e-commerce websites, whereas the front-end system presents a graphical user interface (GUI) in the form of a website where users can interact with the system. The website then displays the e-commerce product information that has been extracted. From the main website, the customer requests the desired product, and a query is sent to the local database. Product information is shown on the home page of the website.

Customers can view prices for the desired goods from multiple E-commerce companies in one location. The website also has a tool called price alert that lets users set up email notifications for when a good deal becomes available.

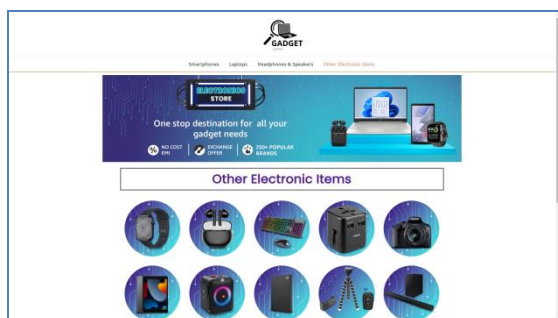
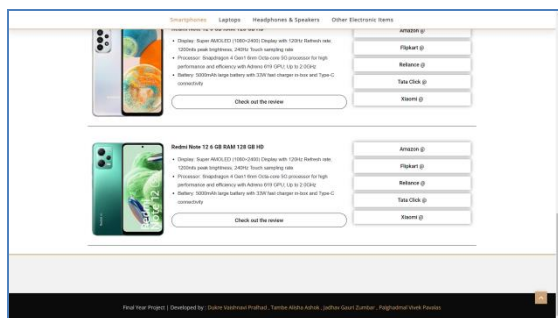
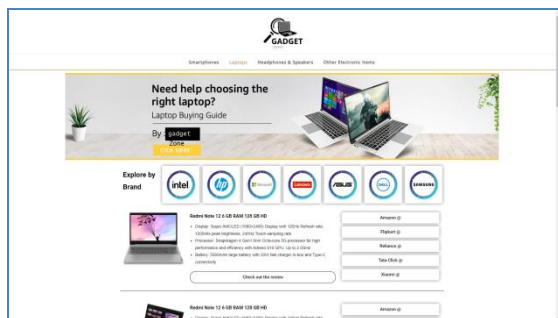
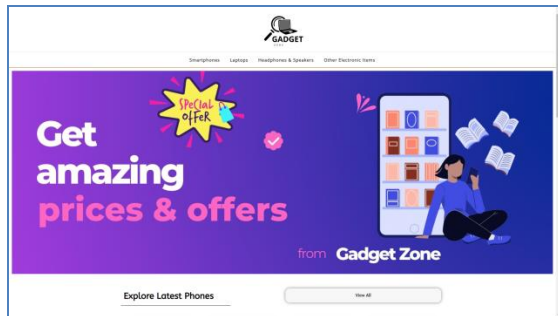


### V. RESULT

A single web interface is used to compare product costs across many e-commerce websites and display the results. This website aims to offer users the most advantageous price for the desired item by comparing the product price and displaying the lowest price from numerous E-commerce websites, some of the greatest and most popular of which are Amazon, Flipkart, and Croma. Web crawlers and

web scrapers are used to extract data about these products that are available on various e-commerce websites in order to achieve this outcome. Web mining is performed to obtain the necessary product details.

Users will be able to use the system to be redirected to the original product page if they choose it as the best offer. Therefore, a website acts as a timer.



VI. CONCLUSION

Users can find relevant information on the website to aid in making educated decisions. Using this comparison of prices website, which addresses the issue of working people needing to verify prices before making purchases. By allowing users to compare costs across several e-commerce shopping websites, this service helps customers find the products with the best deals at the lowest prices. Customers will undoubtedly save time and effort by doing this. At the end of the day, this will compile shopping tips, the best deals, and offers from all of the top online retailers.

The proposed system's drawback is examining the actual volume of the dataset. Essential for improving the quality of bot identification and speeding up the execution of user requests because the dynamic environment makes manual interpretation prone to error, considering all elements for anticipating and distributing edge resources is difficult. The use of modern data mining techniques for comparing numerous databases and sources while creating the dataset is a future feature of the research because it improves the accuracy of detecting bots from large amounts of data.

REFERENCES

- [1] The use of web scraping in computer parts and assembly price comparison LR Julian, F Natalia - 2015 3rd International Conference on ..., 2015 - ieexplore.ieee.org
- [2] An overview on web scraping techniques and tools AV Saurkar, KG Pathare, SA Gode - International Journal on Future ..., 2018 - ijfrcsce.org
- [3] Web scraping for unstructured data over web GN Chandrika, S Ramasubbarreddy, K Govinda... - Embedded Systems and ..., 2020 - Springer
- [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] Dr. Rajendra Nath ,Khyati Chopra,” Web Crawlers: Taxonomy, Issues & Challenges” Proceedings of the International Journal of Advanced Research in Computer Science and Software Engineering , Volume 3, Issue 4, April 2013, pp. 944-948.
- [6] Jos’e Ignacio Fern’andez-Villamor, Jacobo Blasco-Garc’ia, Carlos ’A. Iglesias, Mercedes Garijo “A Semantic Scraping Model for Web Resources” Spain.
- [7] Richard K. Lomotey, Ralph Deters,” RSender: Tool for Topics and Terms Extraction from Unstructured Data Debris”, Proceeding of the IEEE International Congress on Big Data, 2013.

- [8] Web and android application for comparison of e-commerce products A Ambre, P Gaikwad, K Pawar, V Patil - no, 2019 - academia.edu
- [9] Rahul Dhawani, Mrudav Shukla, Priyanka Puvar, Bhagirath Prajapati,” A Novel Approach to Web Scraping Technology” Proceeding of the International Journal of Advanced Research in Computer Science and Software Engineering ,Volume 5, Issue 5, MAY 2015.
- [10]E-Commerce Web-Crawling to Facilitate Consumers for Economical Choices S Saeed, M Naqvi, M Memon - International Journal of ..., 2020 - journal.scientiaca.org