

FLIPKART--PROJECT-REPORT-AND-THEIR-DATA-ANALYSIS**V.SARALA¹, DONGA MAHESH²**¹Assistant Professor MCA DEPT, Dantuluri Narayana Raju College ,Bhimavaram, AndharapradeshEmail id: - vedalasarala21@gmail.com²PG Student of MCA, Dantuluri Narayana Raju College, Bhimavaram, AndharapradeshEmail id: - chinna9121503688@gmail.com**ABSTRACT**

Internet became more powerful and basic tool for every person's need and the way people work. By integrating various online information management tools using Internet, various innovative companies have set up systems for taking customer orders, facilitate making of payments, customer service, collection of marketing data, and online feedback respectively. These activities have collectively known as e-commerce or Internet commerce. Online shopping made so easy for everyone with their product variations and simple way to buy things. An attempt has been made to critically examine various corporate and business level strategies of two big e-tailers and those are Flipkart and Amazon. Comparison have been done considering e-commerce challenges, their business model, funding, revenue generation, growth, survival strategies, Shoppers' online shopping experience, value added differentiation, and product offerings. Both these big players made their own mark in India, but who is going to be ultimate winner or be the top one is going to be. A comparative study of Flipkart.com with one of the close competitor Amazon.com delivers the information about the different strategies to succeed in e-commerce market and different opportunities available in India.

1. INTRODUCTION

In today's highly competitive e-commerce landscape, understanding customer sentiments and opinions is crucial for businesses to make informed decisions and improve their products and services. This project focuses on the development of a system for extracting product reviews from the Flipkart platform and performing sentiment analysis on these reviews. The goal is to provide valuable insights into customer satisfaction, identify areas for improvement, and enhance the decision-making process for businesses and consumers alike. To prepare the collected data for sentiment analysis, the system undergoes text cleaning, tokenization, stopword removal, and lemmatization or stemming. This ensures that the analysis is performed on clean and standardized text. Sentiment Analysis Utilizing sentiment lexicons or pre-trained models, such as VADER or BERT, the system analyzes the sentiment of each review. It assigns sentiment scores (positive, negative, neutral) to individual reviews and calculates overall sentiment scores for products.

Data Visualization The project includes data visualization components, such as bar charts and word clouds, to depict sentiment distribution and frequently occurring terms in reviews. These visualizations offer intuitive insights into customer opinions. **User Interface (Optional):** A user-friendly interface is developed to allow users to input product URLs and view sentiment analysis

results. Search and filter functionalities are implemented to facilitate user interaction. This project aims to provide a comprehensive solution for Flipkart review extraction and sentiment analysis, empowering businesses and consumers with actionable insights derived from customer feedback

OBJECTIVES

- To understand and estimate the consumer perception and factors affecting their behavior for choosing e-commerce sites.
- To understand tactics and methods that are used by e-commerce players to grab the customers in India.
- To know how consumers are evaluating e-commerce sites for their purchases.
- To understand the work flow of Amazon and Flipkart which are leading in India.
- To study complexities and barriers those are there in between e-commerce sites and customers.
- To find out new opportunities and to succeed in those procedures.

PROBLEM DEFINITION

- In India e-commerce evaluated like a giant with huge opportunity and success rate.

There are so many big and small players in market. Are they really going to sustain in market for a long time and is there success rate for them. What are customers expecting from them and are they ready to fulfill their requirements. The study is to understand both parties' requirements and procedures.

RESEARCH APPROACH

EXPLORATORY RESEARCH

- Exploratory research conducted for a problem that has not been clearly defined.

Exploratory research helps determine the best research design, data collection method and selection of subjects. It should draw definitive conclusions only with extreme caution. Exploratory research often relies on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management or competitors, and more formal approaches through in-depth interviews, focus groups and projective methods.

DESCRIPTIVE RESEARCH

- The objective of descriptive research is to describe the characteristics of various aspects, such as the market potential for a product/company or the demographics and attitudes of consumers who buy the product with the help of primary data collected.

DATA COLLECTION

- The goal for all data collection is to capture quality evidence that then translates to rich data analysis and allows the building of a convincing and credible answer to questions that have been posed.

PRIMARY DATA

- Primary data was collected from various people and their opinion and information for the specific purposes of study helped to run the analysis. In essence, the questions asked were tailored to elicit the data that will help for study. The data was collected through questionnaire to understand their experience and preference towards their loyal company.

SECONDARY DATA

- To make primary data collection more specific, secondary data will help to make it more useful. It helps to improve the understanding of the problem. Secondary data was collected from various sources such as different business websites and published papers.

LIMITATIONS

- There was so much confidential data of companies that are not exposed.
- Survey was restricted to particular age group because respondents willing to fill are college students.
- Analysis was done based upon personal opinion of respondents individually, not from any focus groups or experts.

2. LITERATURE SURVEY AND RELATED WORK

Sharma and mittal (2009) in their study “prospects of e-commerce in India”, mentions that India is showing tremendous growth in the e-commerce. Undoubtedly, with the middle class of 288 million people, online shopping shows unlimited potential in India. The real estate costs are touching the sky. Today e-commerce has become an integral part of our daily life. There are websites providing any number of goods and services. The e-commerce portals provide goods and services in a variety of categories. To name a few: apparel and accessories for men and women, health and beauty products, books and magazines, computers and peripherals, vehicles, software, consumer electronics, household appliances, jewelry, audio, video, entertainment, goods, gift articles, real estate and services. Ashish gupta, senior managing director of helion venture partners and one of the first backers of Flipkart as an angel investor: “Flipkart has been absorbing companies that have some potential (letsbuy, myntra). In that process, some of the bets will go wrong, for sure. But that is par for the course. The company (Flipkart) is consciously taking bets that allow it to either grow or eliminate competition that reduces marketing spend and improves economics.” Miyazaki and fernandez (2001) substantiated that the prior experience was found to affect the intention and behavior significantly and in a variety of ways. The results of this study imply that the technology acceptance model should be applied to electronic commerce research with caution. In order to develop a successful and profitable web shop, understanding customers' needs is essential. It has to be ensured that products are as cheap in a web shop as purchased from traditional channels. According to sharma and mittal (2009) in their study “prospects of ecommerce in India”, mentions that India is showing tremendous growth in the e-commerce. Undoubtedly, with the middle class of 288 million people, online shopping shows unlimited potential in India. The real estate costs are touching the sky. Today e-commerce has become an integral part of our daily life. There are websites providing any number of goods and services.

The e-commerce portals provide goods and services in a variety of categories. To name a few: apparel and accessories for men and women, health and beauty products, books and magazines, computers and peripherals, vehicles, software, consumer electronics, household appliances, jewelry, audio, video, entertainment, goods, gift articles, real estate and services. Samadi and ali (2010) compared the perceived risk level between internet and store shopping, and revisit the relationships among past positive experience, perceived risk level, and future purchase intention within the internet shopping environment. Abhijit mitra. (2013), "e-commerce in India-a review", international journal of marketing, financial services & management research. Concluded that the e-commerce has broken the geographical limitations and it is a revolution-commerce will improve tremendously in next five years in India. D.k.gangeshwar. (2013)," e-commerce or internet marketing: a business review from Indian context", international journal of u- and e- service, science and technology. Concluded that the ecommerce has a very bright future in India although security, privacy and dependency on technology are some of the drawbacks of e-commerce but still there is a bright future to ecommerce. Martin dodge. (1999),"finding the source of Amazon.com: examining the hype of the earth's biggest book store", center for advanced spatial analysis. Concluded that Amazon.com has been one of the most promising e-commerce companies and has grown rapidly by providing quality service. Vijay govindarajan is one of the world's leading experts on strategy and innovation. Govindarajan, cox distinguished professor at dartmouth college's tuck school of business and marvin bower fellow at harvard business school, is also a best-selling author. The biggest opportunity in India is e-commerce. Why? Three important factors will drive this: 1) mobile phone penetration; 2) a young demographic that is used to ordering things using the mobile platform; 3) growth of consumerism with more Indians with higher disposable income. We will see many new innovative business models in the e-commerce space in the next five years. No doubt we will see new innovative high-growth companies—Indian equivalents of alibaba.

3. EXISTING SYSTEM

analyze the sentiment of Flipkart reviews for an existing system, you would typically need to use natural language processing (NLP) techniques and sentiment analysis tools or libraries. These tools can help you assess whether the reviews are positive, negative, or neutral based on the text content. You can use programming languages like Python and libraries such as NLTK, spaCy, or the VADER sentiment analysis tool to perform such analysis.

4. PROPOSED SYSTEM

Creating a project for extracting Flipkart reviews and performing sentiment analysis on them involves several steps. Below is an outline of a proposed system for such a project: To collect Flipkart product reviews and perform sentiment analysis to gain insights into customer opinions and sentiments about various products. Use web scraping techniques to collect product reviews from Flipkart. You can use Python libraries such as BeautifulSoup or Scrapy for this purpose. Check if Flipkart provides an API for accessing review data, and if so, integrate it into your project for more reliable and structured data retrieval. Remove any noise from the reviews, such as HTML tags, punctuation, and special characters. Split the reviews into individual words or tokens. Eliminate common stopwords to focus on meaningful words. Reduce words to their base or root form to improve analysis accuracy. Use a sentiment lexicon or pre-trained sentiment analysis models (e.g., VADER, TextBlob, or pre-trained models like BERT) to analyze the

sentiment of each review. Assign sentiment scores (positive, negative, neutral) to each review based on the sentiment analysis results. Calculate overall sentiment scores for products based on the individual review scores. Gather user feedback and continuously improve the system based on user needs and suggestions. This proposed system outlines the key steps and components necessary for a Flipkart review extraction and sentiment analysis project. Depending on your specific requirements and resources, you can further customize and expand upon this framework.

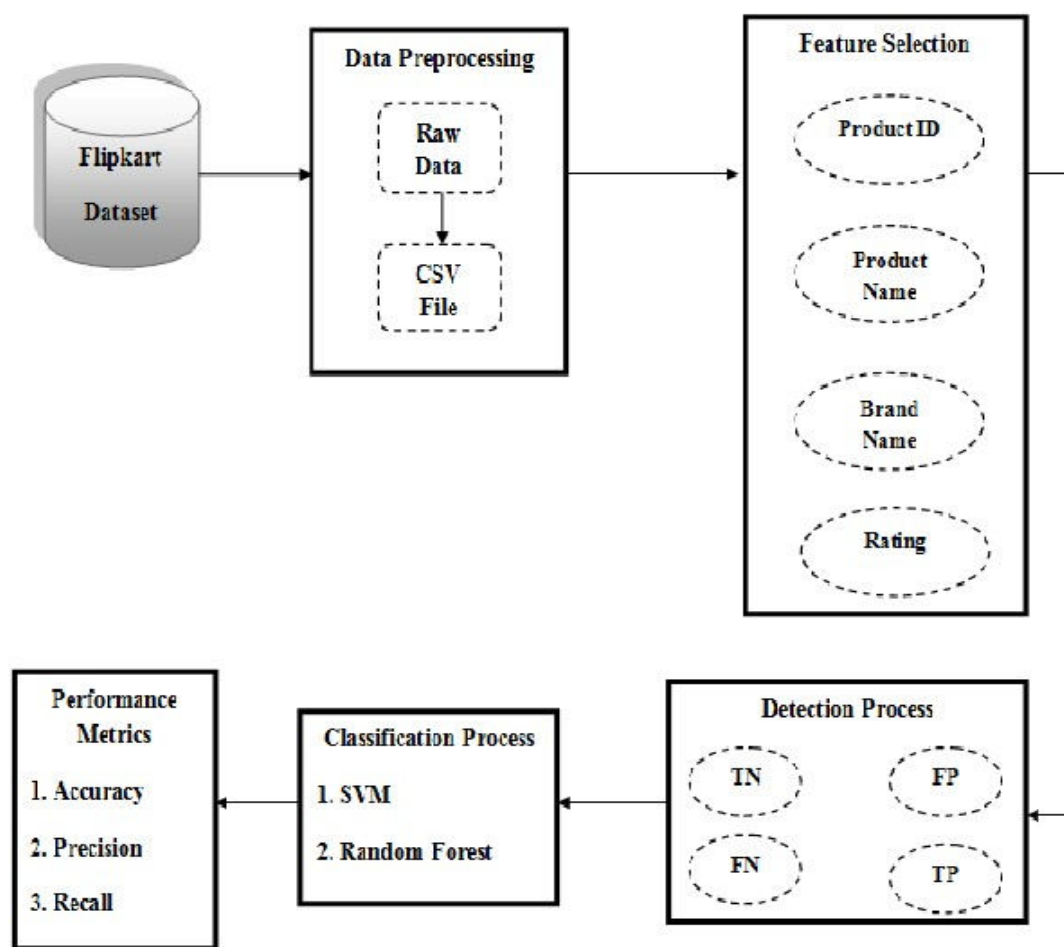


Fig. 1 System Architecture

FIG 1 – SYSTEM ARCHITECTURE

5. METHODOLOGIES

SOFTWARE ENVIRONMENT

The whole Project is divided in two parts the front end and the back end, Front end

The front end is designed using of html , Php , css

HTML - HTML or Hyper

Text Markup Language is the main markup language for creating web pages and other information that can be displayed in a web browser. HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1>, although some tags represent empty elements and so are unpaired, for example . The first tag in a pair is the start tag, and the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, further tags, comments and other types of text-based content. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page. HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages.

CSS- Cascading Style Sheets(CSS)

Is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation. CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for table less web design). CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified. However if the author or the reader did not link the document to a specific style sheet the default style of the browser will be applied. CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or weights are calculated and assigned to rules, so that the results are predictable.

PHP- PHP

Is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP

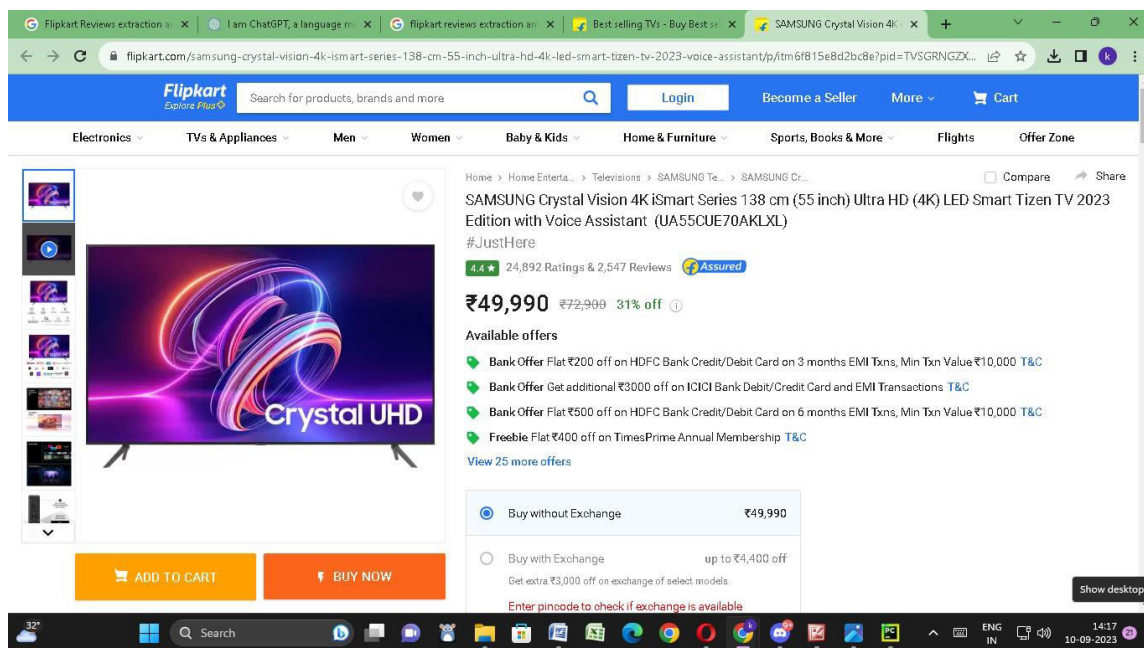
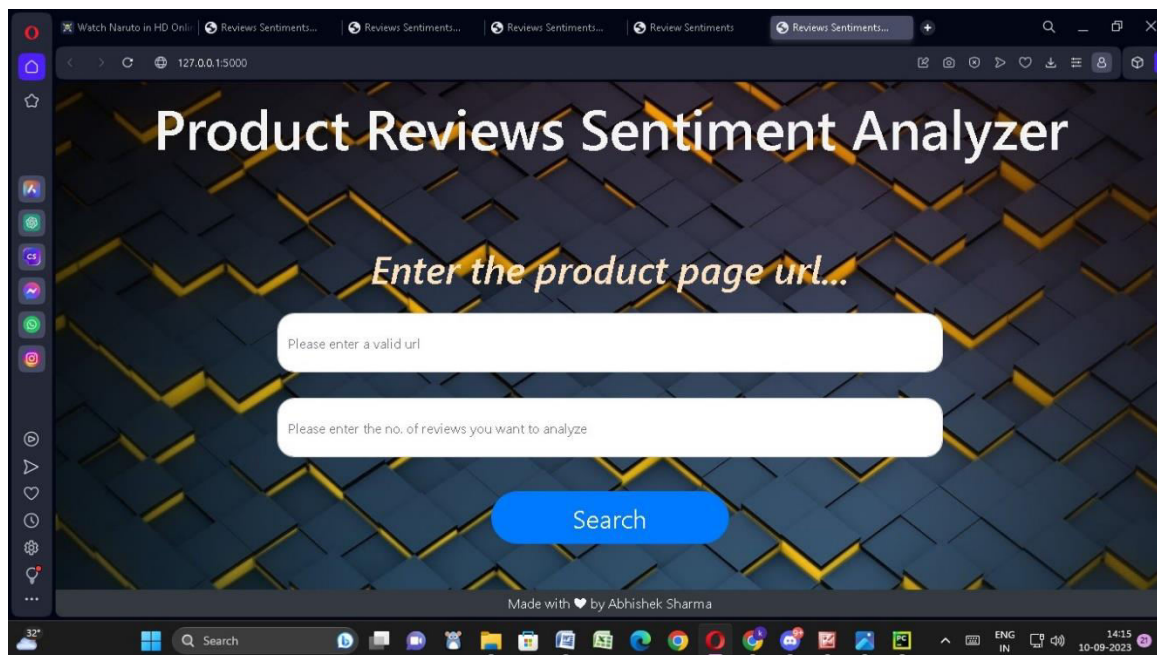
is now installed on more than 244 million websites and 2.1 million web servers. Originally created by Rasmus Lerdorf in 1995, the reference implementation of PHP is now produced by The PHP Group. While PHP originally stood for Personal Home Page, it now stands for PHP: HypertextPreprocessor, a recursive backronym. PHP code is interpreted by a webserver with a PHP processor module, which generates the resulting web page: PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data. It has also evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP is free software released under the PHP License. PHP can be deployed on most web servers and also as a standalone shell on almost every operating system and platform, free of charge.

MYSQL- MySQL

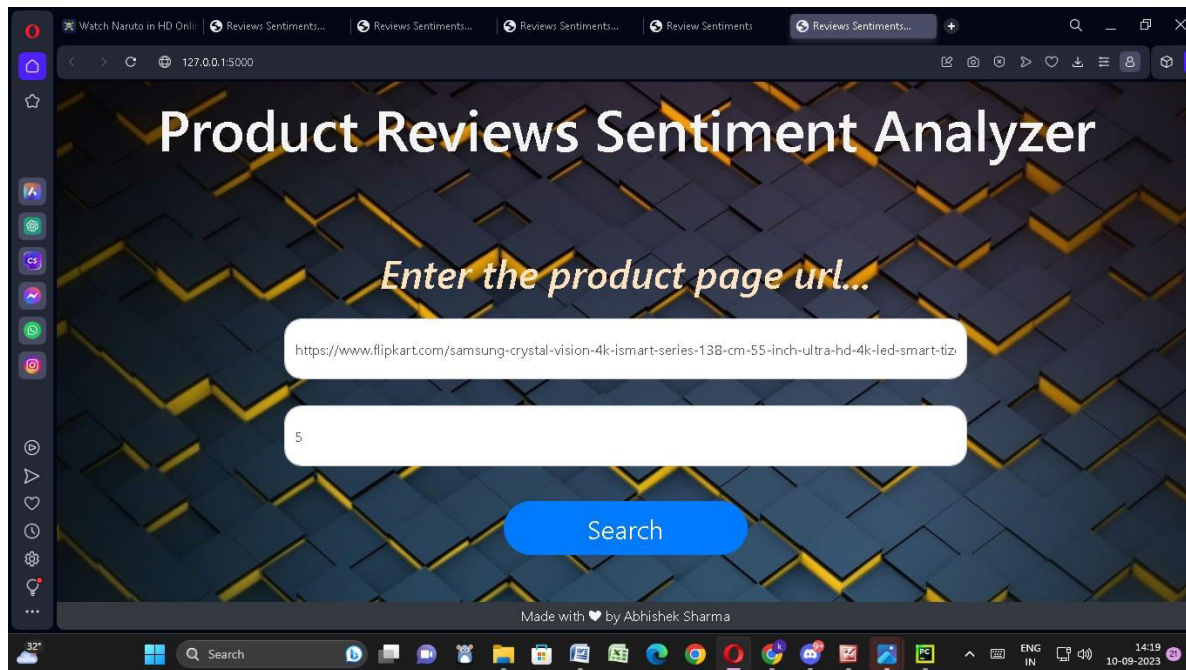
("My S-Q-L", officially, but also called "My Sequel") is (as of July 2013) the world's second most widely used open-source relational database management system (RDBMS). It is named after co-founder Michael Widenius daughter, My. The SQL phrase stands for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack (and other 'AMP' stacks). LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python." Free-software-open source projects that require a full-featured database management system often use MySQL. For commercial use, several paid editions are available, and offer additional functionality. Applications which use MySQL databases include: TYPO3, MODx, Joomla, WordPress, phpBB, MyBB, Drupal and other software. MySQL is also used in many high-profile, large-scale websites, including Wikipedia, Google (though not for searches), Facebook, Twitter, Flickr, and youtube

6. RESULTS AND DISCUSSION SCREEN SHOTS

HOME SCREEN



OUTPUT SCREEN 1



OUTPUT SCREEN 2

Product Name: SAMSUNG Crystal Vision 4K iSmart Series 138 cm (55 inch) Ultra HD (4K) LED Smart Tizen TV 2023 Edition with Voice Assistant (UA55CUE70AKLXL)
Price: ₹49,990

Now based on the below top 5 reviews of the product on Flipkart decide whether you want to purchase the product or not!!!

POSITIVE REVIEWS --> 5/5

NEGATIVE REVIEWS --> 0/5

Wonderful
Very good
~Priya Patil
★★★★★

★★★★★ ~Mousumi Shit

Great product
supppperb picture quality 🍷🍷🍷🍷🍷 100% 🍷 5/5 sound quality 4/5 user interface 5/5 value for money 5/5.....
~Rohidas Bokan
★★★★★

Super!
Good One
~Mihir Momaya
★★★★★

7. CONCLUSION AND FUTURE SCOPE

The study consisted with all the work flows of major e-commerce players in India, Flipkart and Amazon. How they are performing and how they are running perfectly in the competitive world has been explained. The innovative thinking of them to reach more and more consumers is appreciable. They increased their network as much as possible with ultimate aim of reaching more and more customers. They made consumers work more easy and comfortable. In this competitive market one has to be lead and rest will follow. Based upon consumer's survey we got our clear winner and it is Amazon. Even though it is an international company it understood Indians very well and made its roots stronger in India. Flipkart is also giving very tough competition to Amazon even though it is new company when compared to Amazon. Maybe it takes some time to overcome, but definitely they are doing very well in Indian e-commerce market.

Flipkart is performing ok but not good enough. There are so many cases where people felt that packing might have been better than this. Either it may be big or small / expensive or not product has to be treated with care. Some of the products mostly apparels are turning out with original cover of supplier, which shows negligence of them. In this issue Amazon made a mark among us, because whatever the product is their packing will obviously safe and secure.

8. REFERENCES

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