Comparative study on Food Order Industry in India Using WSM Method

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Abstract. *Technology advancement and reliance on the Internet have opened up new opportunities for mobile application marketing in India. There are 15 to 50 billion active websites on the Internet, according to Worldwidewebsize.com. Many conventional methods of product promotion and sales have been rendered obsolete by these websites and apps. The creation of mobile applications, which use the Internet as a medium to advertise goods and services, is the result of collaboration between marketing intelligence and technology. Customers and corporate organizations view the goods and services on the market today with modern eyes. Online marketing is the foundation of marketing tactics that are tailored to today's consumers. This essay examines how people perceive ordering food through online food delivery services while taking advantage of online services. Different businesses have been altered by digital technology to differing degrees, and frequent technology use has made people constantly connected to the internet. Customers can quickly place orders using an online food ordering system based on their preferences. The major goal of this study is to identify the elements that affect consumers' opinions on online food delivery services offered by Pizza Hut, KFC, Dominos, Swiggy, and Zomato. In order to gather a sample from the 167 respondents, the researcher employed descriptive research and a convenience sampling technique. The variables and items were tested with the WSM approach. The purpose of the study was to identify the factors that affect consumers' perceptions of online food services. The findings indicate that the majority of the customers are young people, and that frequent social media events and negative past experiences are among the factors that have an impact on their perception.*
Keywords: *Numerical Analysis, Gauss Elimination and Gauss Jordan method.*

1. INTRODUCTION

The hospitality industry in India is essential to the service sector because it has become one of the country's most important sectors in the twenty-first century. Since the beginning of time, the hospitality sector has catered to people's needs and tastes. Customer happiness and trust are frequently seen as the most important factors in the hospitality sector, which depends on the company's goods and services living up to consumers' expectations. The food market in India was estimated to be worth about INR 23 trillion in 2015 by Boston Consulting Group, and it is projected to grow to INR 42 lakh crore by 2020. Technology has a significant impact on how food services are delivered. Because of their reliance on technology, clients now use online food delivery services to personalise food to suit their tastes and have it delivered with a few clicks on mobile devices. Customers benefit from online meal delivery services in terms of convenience, time, and effort, which is a good enough reason to use them. Based on what customers are expecting from these services, both the number of food delivery services offered to them and the range of services offered has expanded. Finding restaurants serving desired cuisines is made easier by services. The consumer can select from the menu by clicking a button after the whole menu is displayed on the app service. The functionality and customer value systems offered by these app services vary. This research report intends to investigate the opinions of Indian consumers who use Pizza Hut, Dominos, Zomato, Swiggy, and KFC. The study's goals are to classify the reasons encouraging people to order food online using food apps, identify the determinants, and learn what influences people's perceptions of food ordering services through food apps in India. This has an impact on how clients order food. Only clients who live in India are eligible to participate in this poll. It's possible that some respondents provided skewed responses. Some respondents did not know certain aspects of culinary services offered through apps. By providing straightforward responses, some individuals attempted to refute some of the allegations. It is a typical and organised strategy created for carrying out a research investigation. It outlines the study's goals and the procedures to be used in order to reach those goals. Therefore, the conceptual framework for conducting research is known as research design.

2. FOOD ORDER INDUSTRY

Particularly for people who use Android smart phones, online ordering and purchasing of food services has become a routine activity as a result of the recent expansion of the internet. Customers now feel comfortable using online services more frequently. The advancement of technology has had a huge impact on people's lifestyles, enabling them to purchase goods and services online, accessible round-the-clock and without restrictions. These amenities give customers a faster service experience, lessen human error, use less labour, and increase satisfaction. One of the most competitive markets in India is food delivery. Business folks are now awake and alert thanks to the advent of mobile apps and online meal delivery services. Most individuals today utilise mobile applications and are prepared to conduct any business through them. Even businesses have switched from using traditional business techniques to internet marketing depending on consumer preferences and needs at any time. Users can register in applications, choose meals from a menu card, and place orders for food using an android app. To control India's very competitive food delivery sector, Joma Du is engaged in a tough competition with Bengaluru-based Zwiggy. Other major companies in the market include Pizza Hut, KFC, Domino's, Swiggy, and Zomato. The primary benefits of ordering food through a food app include order monitoring, one-step registration, secure payment options, GPS-assisted restaurant or hotel search, table reservations, and secure payment methods. The main downside is that once an order has been sent, it cannot be changed. Cancelled, and the app needs an internet connection to operate. The most popular meals, favourite international cuisines, favourite starters in India, best breakfast items, best lunch items, best dinner things, desserts, early and latest orders, expensive and inexpensive orders, and more are driving trends in the online food market. Deepinder Goyal and Pankaj Chaddah founded Zomato in 2008 in India. It is a restaurant search and discovery tool that offers clients restaurant locations, menus, pictures of the food, and reviews from past patrons. Initially, the services were launched under the moniker Foodie Bay, but in November 2010, Zomato was chosen as the company's brand name. Zomato has achieved great success and is currently available in 24 different nations. The founders of the meal delivery service Swiggy are Bangalore natives Nandan Reddy, Rahul Jaimini, and Sriharsha Majety. The business was founded in 2014 and is run by Bundl Technologies Private Limited. It is valued at $1.3 billion, and it has received about $465.5 million in capital overall. The purpose of the study is to get client feedback and satisfaction with the Indian online food ordering and delivery services that are currently offered. The study compares additional elements of the three local meal delivery businesses. Based on these elements, the study's conclusions can assist service providers in better meeting client expectations. However, new users of online food ordering and delivery services can pick the best option from a variety of one's offered near their home. Therefore, both Indian citizens and service providers can benefit from the study's conclusions. PepsiCo is one of the key forces behind Pizza Hut's success. Pizza Hut has long been a part of the PepsiCo restaurant sector, along with KFC and Taco Bell. PepsiCo strengthened the Pizza Hut brand's national marketing capabilities, enhancing sales and raising brand awareness. But it was the PepsiCo management structure that had a significant impact on Pizza Hut. Fast food restaurant chain KFC, previously known as Kentucky Fried Chicken, is based in Louisville, Kentucky, in the United States. As of December 2013, it had 18,875 locations throughout 118 nations and territories, making it the second-largest restaurant chain in the world (by sales, behind Swiggy). the restaurant company Yum! Brands, which is the owner of the Pizza Hut and Taco Bell franchises. For example, the classic family-style dining locations, storefront delivery and takeout sites, and hybrid locations that provide takeaway, delivery, and dine-in options are just a few of the different restaurant styles that make up Pizza Hut. In Manhattan, Kansas, in the Aggieville shopping and bar district close to Kansas State University, there is the oldest Pizza Hut in the entire globe. Pizza Hut is well-known throughout the world for its culture of achieving the goal of delighting every customer. "We pride ourselves on crafting a flawless pizza and offering courteous and quick service at all times," reads the mission statement of Pizza Hut. Every client promises to return. It also aspires to take pleasure in being a top employer, providing its staff with possibilities for development, progression, and fulfilling careers in a friendly and secure work environment. Pizza Hut wants to bring value growth to shareholders by being responsible and successful in everything it does.

3. WSM METHOD

In decision theory, WSM is one of the most well-known MCDM methods, and this is one of the simplest methods of evaluating alternatives based on certain criteria. All data provided is in one dimension Or WSM is valid only when in unit. Among MCDM methods, WSM alone cannot be used for multidimensional problems. Multidimensional means that all quantities have different units. Besides using WSM, there are other methods that can solve a one-dimensional problem. However, they were originally developed with the aim of solving multidimensional problems; a special method makes the WSM method. The weighted scoring system only works with numerical data. Hence, each substitution before calculating the final score Evaluation should be done against each evaluation criteria. In case of component selection, no direct evaluation will be given for any criteria other than user satisfaction and optimization criteria. Therefore, relevant to each evaluation criterion all alternatives consider the user requirements of the software components are evaluated first. In one-dimensional cases, if all units are the same, WSM can be used effortlessly. When applied to multidimensional MCTM problems the difficulty of this method is apparent. The Weighted Product Method was developed to avoid this problem. It is very similar to WSM, but that is the main difference the model involves

multiplication instead of addition. WPM can be applied to one-dimensional and multidimensional MCDM problems. This is an advantage of the method it can use relative instead of actual values. It has analyzed the problem of making the new system more effective, from the existing decision-making problem, which is expected to overcome the decision making problems from market segmentation evaluation and selection according to predetermined criteria. This can be simplified by using a decision support system method, one of which is the weighted sum model (WSM) method. Application of weighted sum sampling method is a very simple method with few steps which can give the result of Section Evaluation and Exam Result. Implement a decision support system the WSM method is an application designed to assist market segmentation evaluation and selection in making decisions to determine the appropriate special allocation fund recipient with multiple support criteria. Table 1 and table 2 are given evaluation parameters and alternatives parameters. Table 1 and table 2 is given alternatives and evaluation parameters.

TABLE 1. given a data set

	female	male	per not say
Zomato	6	9	7
Swiggy	17	11	6
Pizza Hut	10	10	2
KFC	16	9	4
Dominos	10	7	1

Table 3 is given The Data Set. Segment factors values is high values for the data set. Financial and economic factors are low values for the data set. Table 1 shows the data set for the Materials selection using COPRA method for the Pizza Hut, KFC, Dominos, Swiggy & Zomato of the female, male, per not say.
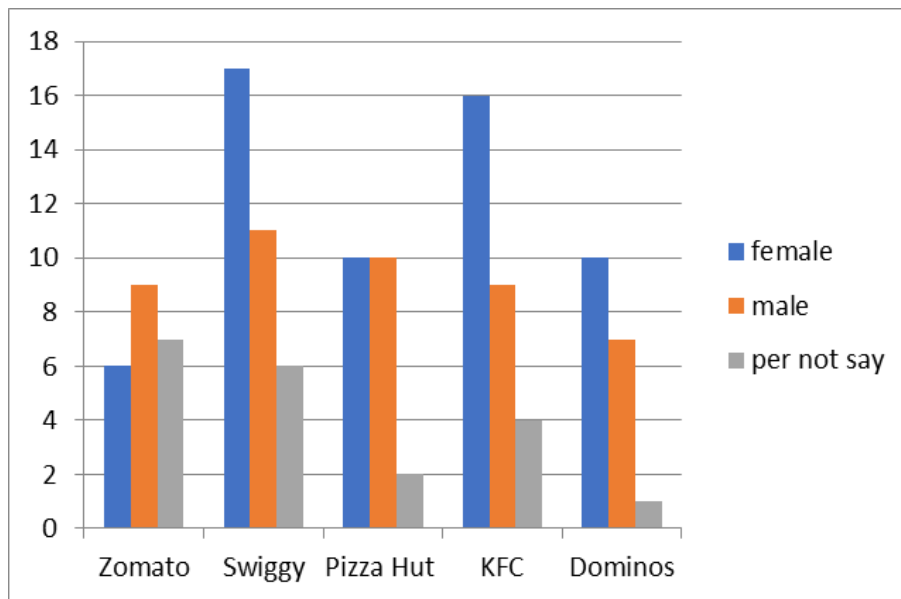

Figure 1. Give a data set graph

TABLE 2 Normalized data

Zomato	0.35294	0.81818	1.00000
Swiggy	1.00000	1.00000	0.85714
Pizza Hut	0.58824	0.90909	0.28571
KFC	0.94118	0.81818	0.57143
Dominos	0.58824	0.63636	0.14286

Table 3 gives the normalized data of the data set. Given this data is easily calculated
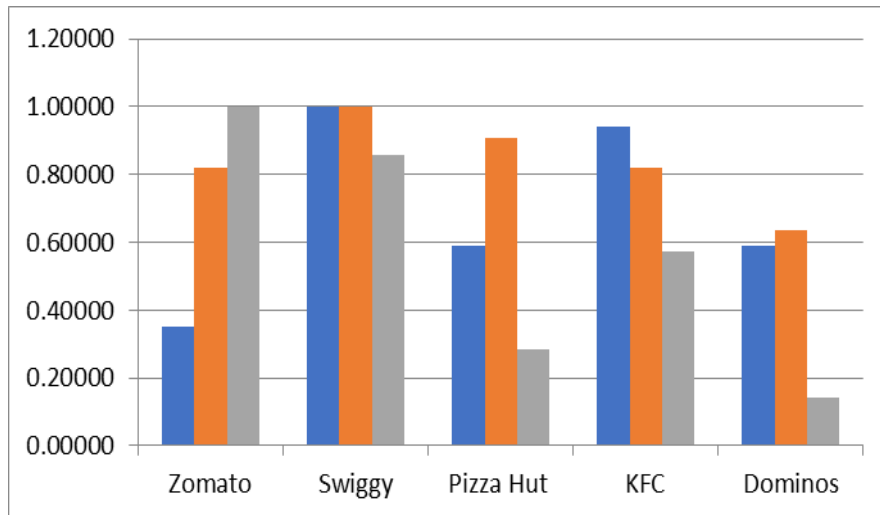
FIGURE 2. gives the normalized data

TABLE 3 .gives weight matrix

Zomato	0.25	0.25	0.25
Swiggy	0.25	0.25	0.25
Pizza Hut	0.25	0.25	0.25
KFC	0.25	0.25	0.25
Dominos	0.25	0.25	0.25

Table 3 gives weight matrix all values is taken for same values.

TABLE 4. Weighted normalized result matrix

Zomato	0.08824	0.20455	0.25000
Swiggy	0.25000	0.25000	0.21429
Pizza Hut	0.14706	0.22727	0.07143
KFC	0.23529	0.20455	0.14286
Dominos	0.14706	0.15909	0.03571

Table 4 gives the weighted normalized decision matrix of the weight. Given this data is easily calculated.

TABLE 5. Preference Score for data set

Zomato	0.54278
Swiggy	0.71429
Pizza Hut	0.44576
KFC	0.58270
Dominos	0.34186

Table 5 gives the Preference Score. Swiggy is highest values for preference values shown in figure 3.
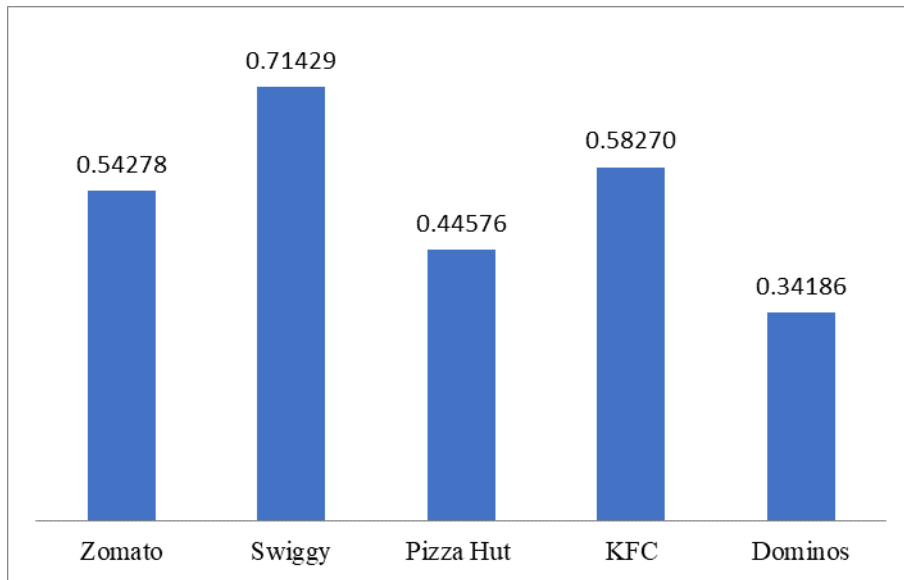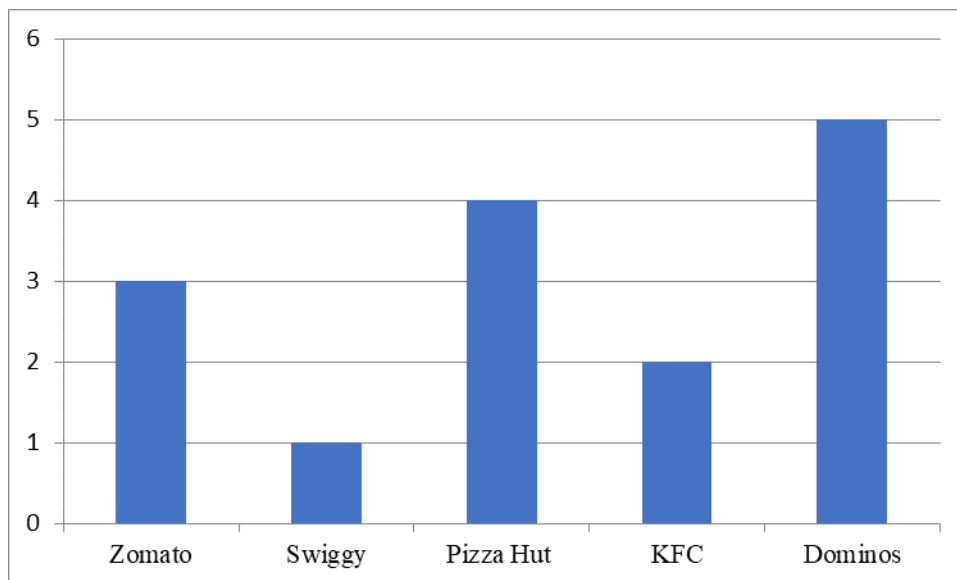
FIGURE 3. Preference values graph.

TABLE 6. Ranking

Zomato	3
Swiggy	1
Pizza Hut	4
KFC	2
Dominos	5

Table 8 shows that the Swiggy is in 1st rank and Dominos Limits are last rank. Figure 4 shown in ranking.

4. CONCLUSION

Apps for ordering food online are rapidly gaining popularity in India. It offers a unique experience and develops into a stylish, engaging, and simple activity. Restaurants benefit greatly from major cost and efficiency advantages thanks to technology and innovation, which also play a big role in the expansion of the food business. Nowadays, food apps are very popular among tech users, allowing users to download them on their smart phones and place orders for meals from certain restaurants. Social media is currently the most popular channel for people to learn about culinary applications. Food applications create a few unique elements to make ordering simple for users. Users are able to browse through many product categories. Users can view and store items in the ordered list as well as examine full order details. By selecting the Add button, the user can select a different number of items from the available food categories for their

sorted list. It enables the user to see the notification message after placing the order and to track the delivery. Because it saves them time and effort, customers are willing to use technology in food mobile applications. Customers are interested in making online purchases, particularly young people. The habit of ordering food online has altered due to the low cost of internet and the widespread use of technological devices by locals. Numerous studies have demonstrated that consumer perception varies from person to person and that it varies based on certain similarities and various concepts. In this study, an effort was made to pinpoint the elements influencing alterations in consumers' opinions of online food delivery services. According to the findings, young folks are more likely than older adults to use online food applications. This demonstrates how many young people are placing food orders online while taking into account convenience, delivery options, payment methods, specials, and discounts. Customer opinions can occasionally alter for a variety of reasons, including online, social media, regular occurrences, negative past experiences, etc. Therefore, a huge number of people have begun using a variety of applications for a variety of purposes, and it will eventually become one of the key platforms for marketing and sales.

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