Building a Marketplace for Aspiring and Existing Restaurant Business Owners –Market Scout

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1. ABSTRACT

This research paper looks into the development of a market- place tailored specifically for restaurant business owners, both aspiring and existing, with a focus on utilising the available data. The goal is to explore the optimal presentation of essential restaurant insights within a website, encompassing key factors such as location, cuisine types, menu details, customer reviews, and additional facilities, all related to the restaurant businesses. We attempt to incorporate the literature review and analysis of survey data, the paper seeks to shed light on the potential bene- fits that this project can offer to restaurant enterprises.

An emphasis is placed on the pivotal role of data interpretation in driving business success within this marketplace frame- work. While the platform provides a wealth of valuable data to restaurant owners, the ultimate effectiveness of this resource hinges upon their ability to discern meaningful insights and take informed actions accordingly. It is important to note that the marketplace primarily serves as a tool for data analysis rather than offering direct consultancy services to businesses.

The paper concludes with recommendations for creating an exhaustive marketplace, to understand customer's expectations in terms of services, menu items, and related ethical aspects al- lows evaluation of the challenges for a startup restaurant based on market analysis of existing food related services.

2. INTRODUCTION

In the ever-evolving landscape of the restaurant industry, aspiring entrepreneurs seek to open their own restaurant business. But these aspiring entrepreneurs who are passionate about culinary arts face many difficult obstacles. These challenges range from understanding the nuanced dynamics of their local market to crafting menus that resonate with their target audience and devising effective strategies to stand out in a crowded culinary landscape.

Here, we introduce 'The Market Scout,' an innovative and all-encompassing mobile application designed to address these challenges. The Market Scout serves as an indispensable companion for aspiring entrepreneurs embarking on the journey of restaurant ownership. It helps leverage real-time market data and advanced analytic and empowers users with valuable insights into local market trends, competitor strategies, and customer preferences.

At its core, The Market Scout simplifies the complex decision-making process inherent in opening and operating a successful restaurant. Its users can access expert guidance for menu planning, pricing optimization, and resource allocation, ensuring their restaurant projects are positioned for success from their commencement.

The Market Scout isn't just a one-time solution; it's a dynamic partner in a restaurant owner's ongoing journey. With continuous updates and a planned user-friendly interface, it evolves alongside the ever-changing culinary landscape. The Market Scout transforms culinary dreams into thriving realities.

3. Market Analysis

3.1. Overview

Looking at the Indian Restaurant market, it is segmented by cuisine service Type (includes Cafes, Bars, Cloud Kitchen, Full Service Restaurants, Quick Service Restaurants), by Outlet types (Chained Outlets, Independent Outlets).

The India Food service Market size is estimated at 77.54 billion USD in 2024, and is expected to reach 125.06 billion USD by 2029, growing at a CAGR of 10.03% during the forecast period (2024-2029).

India is a diverse country with a rich culinary heritage, and entrepreneurs are increasingly willing to experiment with new cuisines and dining experiences. This has led to the growth of specialized restaurants offering unique and innovative dining experiences. Apart from Indian cuisine, other cuisines, such as Lebanese, Chinese, and Japanese, are popular in India. The number of sushi orders increased by 50% from 2019 to 2021. The growing popularity of eating out, changing lifestyles, and increased urbanization are driving the growth of the food service market in India. More than 45 million Indians preferred eating out at restaurants in 2021. This justifies that the need exists in the market and Indian audiences are hungry for more! As of 2022, around 24% of the Indian population was vegetarian, and around 9% was vegan. This made food service players offer more vegan menus to cater to the vegetarian and vegan populations in India. Many quick service restaurants or QSR, are adapting to this trend and offering vegan menus. For instance, Burger King, Pizza Hut, Taco Bell, and KFC offer vegan dishes.

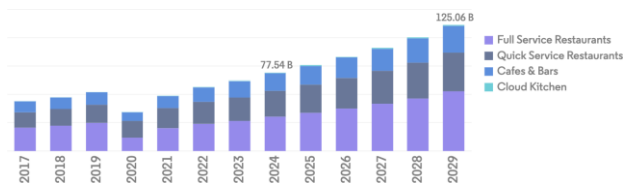Figure 1: Indian Food Service Market Size in USD Billion

Figure 2: Value of Food Service Type, India, 2017 - 2029

Cloud Kitchens demand is also increasing in the subcontinent. This is mainly due to the increasing demand for food de- livery services, driven by factors such as busy lifestyles, convenience, and the COVID-19 pandemic. Another growth driving factor is rise of food delivering digital platforms such as Zomato and Swiggy. These Indian startups have grown to become regular household names in Tier 1 and Tier 2 cities with 3 Mil- lion + orders daily. These platforms provide a convenient way for customers to discover and order from a wide range of cloud kitchen options and for cloud kitchens to reach a large customer base without extensive marketing and advertising. Hence, cloud kitchens are anticipated to register the fastest growth during the forecast period, with a CAGR of 16.67%, by value. Chef-driven dining-out restaurants are on the rise as more and more professionally trained chefs and celebrity chefs are now focusing on benefiting from the growth provided by FSRs.

Considering these aspects, the growth of Indian food consumption demand is proven to have a positive growth in the upcoming 5 years, and the success of having a restaurant in- creases, so does the competition.

3.2. Reasons for Growth

1. Changing demographics: In India, there is a sizable working population that includes women. There is a liberal, progressive, and upwardly mobile middle class, and the number of nuclear families is rapidly rising.

2. Greater spending power - India's per capital income has been gradually rising, which has increased Indians' disposable income.

3. Exposure - Traveling outside of India has made Indians more knowledgeable about other cultures' cuisines. The popularity of television food and cooking shows like Master Chef has further increased public awareness of fine dining.

4. India as a travel destination: Restaurants in the nation have every motivation to diversify their menus and provide higher quality services in order to meet the demands of a growing international market as India projects itself as a key tourism destination to the rest of the world.

5. Digitization and Infrastructure Development: Customers have had a better eating experience as a result of elements such as shorter wait times and improved ordering, which keeps them coming back for more and drives the industry's growth. Restaurants benefit from digitization and infrastructure development by being able to better manage expenses, reduce waste, maintain quality, etc.

4. ANALYSIS OF EXISTING APPLICATIONS

In today's world, most of the data is openly available to the audience, but is scattered all over the wide web. The information seekers are to put in a lot of effort for finding the most vi-able data, which is not available just clicks away. This is where Market Scout comes into picture and provides the users with all the necessary information related to restaurant services. The existing competition is not similar to Market Scout, but provides insights similar to restaurant businesses.

4.1. Eagle Owl

It is a one-stop shop for all things restaurant-related. It is the Eagle Owl marketplace. Restaurant owners may find and connect with the suppliers they need for their operation. On the other hand, suppliers can increase their revenues by showcasing their goods to the enormous restaurant business. By creating an account on the Eagle Owl marketplace, restaurants can compare rates and identify suppliers more quickly, which lowers costs for the business.

4.2. Trade India

It was originally conceived in 1996 with the intention of providing businesses with a venue to advertise their goods and services. Trade India has improved its offerings as of right now to enable companies to use the platform for their own web marketing. Trade India has also moved its emphasis to customer service by developing into an E-Marketplace and a provider of 360-degree digital marketing solutions. Trade India not only helps buyers and sellers connect, it also offers assistance with payment protection plans, loans, and logistics.

4.3. Ninja Cart

This restaurant supply marketplace is considered as one of India's largest fresh produce supply chain companies. Ninja Cart connects producers to various restaurants, retailers, and wholesalers using technology. Ninja Cart looks to give solutions to usual problems that hound traditional supply chains. First, the problems that farmers experience when it comes to market value, poor distribution of goods and late payments. Second, retailers face product problems such as high cost and poor quality. Lastly, the overall inefficiency of the supply chain and high rate of wastage.
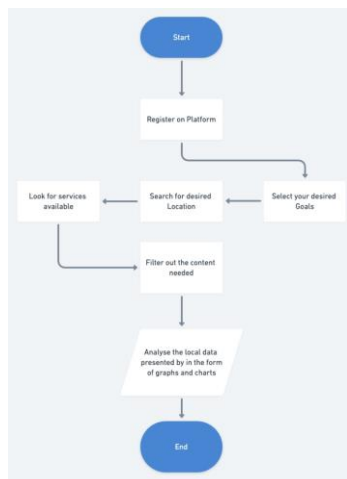
Figure 3: Flowchart of Application

4.4. Jumbo Tail

One of the top online B2B marketplaces for the restaurant service sector in India is called Jumbo Tail. One of their key objectives is to use technology, data science, and design to re - engineer the food and grocery e-commerce platform. Their lobbying guarantees the Indian food industry—from farmers to retailers—fair access to markets and expanded opportunities.

5. FLOW

In Fig 1. given below, the flow of the application is described diagrammatically. When a new user registers on the application and verifies their details, they can select the categorical goals, how they want to proceed with their existing or potential business, and start filling the details. Once they enter all the necessary details, we go on to display graphs, related to specific regions of choice, and the deep insights which are to be analyzed by the users themselves. Once the data is presented to the users in the forms of graphs and charts, they have the option to make the most of it by downloading the data, and implementing the solutions to their businesses.

6. SECTIONS

6.1. Crew AI

Crew AI, represents a versatile platform tailored for AI-driven processes and tasks, offering a comprehensive suite of functionalities designed to enhance efficiency and streamline operations. At its core lies an Agent framework, empowering developers to craft intelligent entities capable of natural language understanding and decision-making. With Task definition capabilities, users can structure operations, from simple tasks to complex workflows, while Crew organization fosters collaboration among agents and tasks toward common objectives. Through streamlined Process management, Crew AI enables automation and optimization of task sequences, ultimately empowering businesses to harness AI's transformative potential effectively.

6.2 Large Language Model.

Large Language Model stands as a pivotal interface to Google's Gemini Pro model, a cutting-edge language model celebrated for its advanced natural language processing capabilities. Leveraging large language model, users gain access to Gemini Pro's powerful features, enabling the generation of high-quality text content, conducting conversational interactions, and executing various language-related tasks. This module facilitates fine-tuning of model parameters, such as temperature, allowing users precise control over the diversity and creativity of the generated text. In essence, large language model serves as a versatile tool for diverse language processing needs, offering a robust solution for content generation, dialogue systems, and more.

6.3 Python

Python is a versatile, high-level programming language known for its simplicity and readability, making it ideal for beginners and professionals alike. It boasts a vast ecosystem of libraries and frameworks, facilitating rapid development across various domains such as web development, data science, artificial intelligence, and automation. Python's dynamic typing and interpreted nature promote quick prototyping and iterative development, enhancing productivity. Its emphasis on code readability and concise syntax promotes maintainability and collaboration within development teams. Overall, Python's popularity stems from its ease of use, powerful features, and extensive community support.

6.2. Beautiful Soup

It is a Python package that is used for parsing HTML and XML documents. It creates a parse tree which is used for parsed pages that can be used to extract data from HTML, which is useful for web scraping.

7. ACKNOWLEDGEMENT

8. CONCLUSION

The Project presents exciting possibilities to support aspiring restaurateurs, its feasibility depends on the availability of re- sources (including data sources, technical expertise, and funding), effective execution of algorithms and data analysis, and a robust strategy for user adoption and engagement.

As our proposed solution, We envision developing an innovative app tailored for aspiring entrepreneurs aiming to establish their own restaurant business. This app will act as a comprehensive guide, providing step-by-step assistance throughout the process. The core features of the app will include - Market Analysis, Competitor Insights, Menu Planning, Resource Allocation and much more.

In the ever-evolving restaurant industry, aspiring restaurateurs grapple with multifaceted challenges, from understanding local markets to devising competitive menus and navigating theintricacies of entrepreneurship. The Market Place emerges as a beacon of hope in this landscape, offering an all-encompassing digital companion that bridges the gap between culinary dreams and successful restaurant ownership.

9. REFERENCES

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