

An Empirical Study on Consumer Perception and Purchase Behaviour Towards Online Seafood Products in Chennai, Tamil Nadu

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ABSTRACT

This research explores the evolving consumer perception and behaviour towards online seafood purchases in Chennai, a city with a deep-rooted maritime heritage and a tradition of sourcing fresh seafood from local markets. With the rapid growth of e-commerce, consumers are increasingly turning to online platforms for their seafood needs, driven by the convenience, variety, and competitive pricing these platforms offer. The study focuses on understanding the types of seafood products preferred by consumers, identifying the most popular online seafood brands, and assessing the constraints faced by consumers when purchasing seafood online. Through an analysis of 199 respondents, the research highlights the significant shift in consumer behaviour towards online seafood purchases in Chennai. The findings reveal that while consumers appreciate the convenience of online shopping, they still prioritize quality, price, and product variety. The study also identifies key payment methods and preferred online platforms, providing valuable insights for online vendors to tailor their offerings effectively. In conclusion, consumers prioritize nutritional benefits, convenience, quality, and sustainability in online seafood purchases, but price sensitivity and cooking uncertainty remain significant barriers.

Keywords: Online seafood purchases, Consumer perception, Seafood products, Chennai market.

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1. Introduction

Consumer perception refers to the way customers view and interpret a product, brand, or company based on their experiences, beliefs, expectations, and interactions. This perception is influenced by various factors such as marketing, advertising, personal experiences, social media, and word-of-mouth. Consumer perception affects purchasing decisions and brand loyalty, making it crucial for businesses to manage and influence how they are perceived in the marketplace (Kotler & Keller, 2016).

Consumer perception in e-commerce was being shaped by how customers perceived and assessed an online platform, its products, and services based on their interactions and overall experiences. This perception was being influenced by several factors, including website design, ease of navigation, quality of product information, pricing strategies, customer feedback, and service quality (Flavián, Guinaliú, & Gurrea, 2006). Additionally, secure payment options and strong privacy protections were playing a crucial role in establishing trust and confidence (Gefen, Karahanna, & Straub, 2003). Positive consumer experiences, such as smooth transactions, on-time deliveries, and responsive customer service, were significantly shaping customer perceptions (Kim, Ferrin, & Rao, 2009). In the competitive e-

commerce landscape, businesses were needing to effectively manage consumer perception to attract and retain customers (Pappas, 2016).

Furthermore, consumer perception was being strongly impacted by personalization and convenience. E-commerce platforms that were providing personalized product recommendations based on previous purchases or browsing history were building stronger connections and trust with customers (Dai et al., 2014). Convenience factors, such as fast and flexible delivery options, were driving positive perceptions, as consumers were increasingly prioritizing speed and efficiency in their shopping experiences (Xu & Gursoy, 2015). With the growing importance of mobile commerce, businesses needed to optimize platforms for mobile use to ensure a seamless, consistent experience across devices (Wang & Emurian, 2005). However, negative factors like hidden fees, complicated return processes, or subpar product quality were diminishing consumer trust and pushing them towards competitors. As the e-commerce industry was evolving, businesses that were prioritizing seamless, secure, and personalized experiences were more likely to succeed in this competitive market (Shankar et al., 2011).

E-commerce platforms are online systems that facilitate the buying and selling of goods and services over the internet, offering a digital marketplace where vendors can list products,

manage payments, handle deliveries, and engage with customers. These platforms range from small niche businesses to large-scale operations, providing a wide variety of options for consumers. In the seafood market, platforms such as Ennore's Seafood and Licious, alongside broader grocery platforms like BigBasket and Amazon, ensure that customers can conveniently purchase fresh or frozen seafood, often with quick delivery options. In 2024, India's Fish & Seafood market is valued at ₹4.75 trillion, with an annual growth rate projected at 7.94% through 2029 (Statista, Fish & Seafood - India, 2024). China leads globally with ₹8,064 billion in revenue, while per capita revenue in India is ₹3.29k. The market volume is expected to reach 6.47 billion kg by 2029, with a 5.6% growth anticipated in 2025. Average volume per person in the fish & seafood market is estimated at 3.8 kg in 2024. The market is divided into three subcategories: Fresh Fish (fresh, chilled, or frozen fish), Fresh Seafood (crustaceans and mollusks), and Processed Fish & Seafood (dried, salted, canned, brined, or smoked products) (Statista, Fish & Seafood - India, 2024). India's overall e-commerce sector is projected to reach INR 4,416.68 billion in 2024, growing annually by 11.45% to reach INR 7,591.94 billion by 2029. UPI transactions in 2022 totalled INR 125.94 trillion, with over 800 million users, and e-commerce users were expected to reach 501.6 million by 2029. The Indian Fish & Seafood market was expected to generate US\$57.15 billion in 2024, growing at 7.52% (2024-2029), while the Indian Grocery e-commerce market was predicted to reach US\$9,981.2 million in 2024, with a compound annual growth rate of 28.9%, reaching US\$27,570.1 million by 2028 (Forbes Advisor, Apr 12, 2024).

The rapid growth of e-commerce was significantly impacting various industries, including the seafood sector in Chennai, Tamil Nadu. Traditionally, consumers in this coastal city had been relying on local markets for their seafood needs, valuing freshness and the ability to personally select their purchases. However, the convenience, variety, and competitive pricing offered by online platforms were increasingly attracting consumers to buy seafood online. This shift towards e-commerce was reshaping the seafood market in Chennai (Raj & Dubey, 2020).

This study is important for understanding how people in Chennai feel about buying seafood online, especially since they usually prefer local markets. With the growth of e-commerce, concerns like freshness, quality, and proper delivery are keys to earning customer trust. After the pandemic, more people are choosing the convenience of online shopping, but they still worry about these issues. This research will help online seafood sellers improve their services, meet customer expectations, and create better marketing

strategies, which will help the online seafood market grow in Chennai.

Despite the increasing popularity of online seafood purchases in Chennai, there was a lack of comprehensive research on consumer behaviour in this area. Understanding consumer preferences, brand choices, and the challenges they encounter is essential for developing effective marketing strategies. This study addresses the gap by examining the factors that influence consumer perceptions and behaviours towards online seafood purchases in Chennai. With this background, the following objectives are formulated such as to identify the types of seafood products consumers prefer to buy online and to determine the preferred online seafood brands among consumers in Chennai.

2. Materials and Methods

2.1. Research Design

The research aims to systematically describe consumer perceptions, preferences, and challenges related to online seafood purchases in Chennai. By employing a structured questionnaire, the study gathers detailed information to provide a comprehensive understanding of the factors influencing online seafood buying behaviours.

2.2. Study Area

Data were collected from selected district of Tamil Nadu i.e, Chennai (13°4'57"N 80°16'30"E (174 Sq. Km)), focusing on consumers who engage in online seafood purchases. Chennai, being a major metropolitan area with a diverse population, provides a relevant context for understanding online seafood consumption behavior. The area of collection is given in Fig. 1

2.3. Data Collection Method

The primary data for this study is collected directly from consumers in Chennai who purchase seafood online. The data is gathered through a structured questionnaire designed to capture insights into consumer preferences, online purchasing habits, and the challenges they encounter. Secondary data were collected from various sources such as published journals from databases like ScienceDirect and google scholar, official websites, books and conference papers.

2.4. Sample Size

In this study, a total of 199 respondents were selected from Chennai to analyze consumer perception of seafood products purchased online.

2.5. Sampling Technique

Convenience sampling technique was adopted for the study.

2.6. Period of Data Collection

The data collection process is conducted

over a specified period of one month from July 3 to Aug 9 in the year 2024, allowing for the timely gathering of information. This period ensures that the data reflects current consumer behaviours and preferences.

2.7. Statistical Analysis

The collected data is analyzed using a range of statistical techniques to draw meaningful insights. These techniques help in identifying patterns, relationships, and trends in consumer behavior.

2.7.1. Descriptive Statistics

Used to summarize the main features of the data, providing simple summaries about the sample and measures. This included calculating means, medians, modes, frequencies, and percentages to describe the demographic characteristics and purchasing habits of respondents. Here, percentage analysis was performed to highlight the distribution and proportion of various responses, offering a clearer understanding of the data patterns. And the weighted average method was applied to rank responses based on their relative importance. By assigning weights according to respondents' ratings, this method provided a nuanced understanding of preferences, enabling the identification of significant factors influencing consumer behavior.

3. Results and Discussion

3.1. General characteristics of sample respondents

The general characteristics of sample respondents were depicted from Table 1 to 9. A higher percentage of female respondents (69.8%) compared to males (30.2%) highlighted a gender disparity in online seafood purchases. The majority of respondents belonged to the 21-30 age group (51.8%), indicated that young adults were the primary consumers of online seafood in Chennai. Most respondents were highly educated, with many holding graduate (61.3%) or postgraduate degrees (29.6%), suggested that educated individuals were more likely to explore online platforms for seafood purchases. More than half (54.8%) of the respondents were employed, indicated that working individuals were more inclined to purchase seafood online. Respondents with a monthly income of ₹ 20,001 - ₹ 50,000 emerged as the most active online seafood consumers (42.7%). A total of 58.8% of respondents came from nuclear families, while 41.2% were from joint families.

3.2. Purchasing habits of the customer

The result from Table 09 revealed that 32.2% respondents purchase seafood rarely in online, 23.6% of the respondents occasionally purchase seafood in online, 19.6% of the respondents purchase seafood weekly in online,

17.1% of the respondents purchase seafood monthly in online and 7.5% of the respondents purchase seafood in online daily. The maximum number of respondents (64) purchases seafood rarely in online.

3.3. Purchasing duration

The results from Table 10 revealed that, (36.7%) of respondents had purchased seafood online for less than 6 months, 23.1% of respondents had purchased for 6 months to 1 year. 22.1% of respondents had purchased seafood online for more than 2 years and 18.1% of respondents had purchased for 1 to 2 years. Maximum number of respondents (36.7%) had purchased seafood online for less than 6 months

3.4. Purchasing preference

The result from Table 11 revealed that a strong majority of respondents 72.4%, prefer purchasing seafood through mobile apps, while 27.6% prefer using websites. It results that mobile apps were the dominant platform for online seafood shopping among the respondents. Maximum number of respondents preferred using mobile apps to purchase seafoods.

3.5. Monthly spending

The result from Table 12 revealed that the majority of respondents (56.3%) spend less than ₹1,000 per month on online seafood, indicating a dominant low-spending consumer base. A smaller percentage of respondents spend between ₹1,001 and ₹3,000 (30.2%), while only 13.6% are high spenders, spending over ₹3,000 monthly. The majority of the respondents 56.3% spend less than ₹1,000.

3.6. Online seafood purchase preference for seafood products and online brands

The result from Fig.2 showed that Whole Fish was the most preferred seafood product purchased online, with 17.3% of consumers favoring it. Fish Pickle (11.8%) and Shrimp Pickle (10.9%) were also popular, reflecting a strong demand for value-added, flavor-rich items. Marinated Fish (10.2%) and Fresh Sliced Fish (9.2%) suggested a significant consumer interest in ready-to-cook and convenient options. Products like Peeled Shrimp (6.4%), Marinated Shrimp (6.4%), and Whole Crab (5.3%) had moderate popularity, while items such as Frozen Shrimp (IQF) (0.9%) and Canned Crabs (0.4%) were less favored, indicating that consumers preferred fresh and minimally processed seafood. Whole Fish was the most preferred seafood product for online purchase, with 17.3% of consumers favouring it.

4. Conclusion

A higher percentage of female respondents (69.8%) compared to males (30.2%) highlighted a gender disparity in online seafood purchases. The majority of respondents belonged to the 21-30 age group (51.8%), indicated that young adults were the primary consumers of online seafood in Chennai. Most respondents were highly

educated, with many holding graduate (61.3%) or postgraduate degrees (29.6%), suggested that educated individuals were more likely to explore online platforms for seafood purchases. More than half (54.8%) of the respondents were employed, indicated that working individuals were more inclined to purchase seafood online. Respondents with a monthly income of ₹ 20,001 - ₹ 50,000 emerged as the most active online seafood consumers (42.7%). A total of 58.8% of respondents came from nuclear families, while 41.2% were from joint families. Online seafood purchases were not a frequent activity for most consumers, with 32.2% buying rarely and 23.6% purchasing occasionally.

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V. Nagajothi: Manuscript review and manuscript editing

V. Boomika: Data interpretation and inference

R. Varadharaju: Analysis of the data and inference

C. Balisasikumar: Manuscript editing and review

P. Sivakumar: Data validation and review

Vignaesh Dhanabalan: Writing of the manuscript and editing

Ethical Approval

This is an observational study and no ethical approval is required

Competing Interests

The authors have no relevant financial or non-financial interests to disclose

Data availability

The data sets generated are available from the corresponding author upon reasonable request.

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