"A STUDY ON THE INFLUENCE OF BRAND EQUITY COMPONENTS AMONG ONLINE CONSUMERS OF FRESH FISH, SEAFOOD AND MEAT"

Project Report Submitted in Partial Fulfilment of the Requirements for the MBA (Full time) Degree of the University of Calicut

Submitted by

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2020-2022

UNIVERSITY OF CALICUT

BONAFIDE CERTIFICATE

Certified that this project report **"A STUDY ON THE INFLUENCE OF BRAND EQUITY COMPONENTS AMONG ONLINE CONSUMERS OF FRESH FISH, SEAFOOD AND MEAT"** is the bonafide work of "Mr. NITHIN PAUL" (YPAUMBA045) who carried out the project report.

Pongam, Koratty East, Thrissur **Prof. Dr. Jacob PM**

Date: DIRECTOR,

Naipunnya Business School

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DECLARATION

I, Nithin Paul hereby declare that the project Report entitled report "**A STUDY ON THE INFLUENCE OF BRAND EQUITY COMPONENTS AMONG ONLINE CONSUMERS OF FRESH FISH, SEAFOOD AND MEAT**" has been prepared by me and submitted to the University of Calicut in partial fulfilment of the requirements for the award of the Masters of Business Administration is a record of original work done by me under the supervision of **Rev.Fr. Ajo George Moothedan** Assistant Professor of Naipunnya Business School.

I also declare that this report is the result of my own original work and that it has not been previously submitted to any other university or Institution for the award of any degree or diploma.

Place: Pongam, Thrissur   **NIHIN PAUL**

Date: 12/09/2022   **YPAUMBA045**

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NITHIN PAUL

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EXECUTIVE SUMMARY

Among the brand equity components, brand awareness, loyalty, perceived quality of the customer has an impact on the online consumers of fish, seafood and meat in product category. Customers who are aware of the brand may intend to buy if they are triggered by any of marketing strategies. This will lead to repeat purchase and customers will become loyal to the brand. Increase in brand loyalty would lead to higher perceived quality and customer satisfaction. And to know this in detail will help the companies to make changes accordingly and attract the customers and enrich the market share of the company.

The purpose of the study was to understand the influence of brand equity components among online consumers of fresh fish, seafood and meat in food category. Sample of around 200 respondents collected through Google forms with a well-structured questionnaire. For the research report simple graphical method and Anova is used. On the basis of data collection and analysis the researcher come to know that increase in brand loyalty would lead to higher perceived quality and to higher customer satisfaction. The level of brand awareness and brand recognition of the customer are changing day by day so it is very important that the companies has to offer unique features and marketing strategies to persuade them to be a loyal customer of the brand.. From this study the researcher come to the conclusion that Freshtohome is having the highest level of brand recall and is having the top-of-the-mind awareness among the online delivery of fresh fish, seafood and meat in food product category. Majority of the respondents could recognise the brands such as Freshtohome, Licious, Bigbasket in the online delivery of fresh fish, seafood and meat in food product category. Creation of brand loyalty is essential in the online delivery of fresh fish, seafood and meat in food product category as most of the customers use a particular brand which is recommended by their friends and relatives. Perceived quality and customer satisfaction predicts brand loyalty. Marketers of online delivery of fresh fish, seafood and meat in food product category should focus on the perceived quality as well as the customer satisfaction as both of these are strong determinants of brand loyalty. There is no need for various marketing strategies based on gender of the customers.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Fisheries sector is very important sector of India. It is the source of livelihood for around 2.8 crore number of fishers, fish farmers, fish workers and fish vendors at the primary level and several crores along the value chain The sector also contributed Rs 46,663 crores through exports during 2019-20. The fish production in India increased from the level of .75 MMT (Million Metric tonnes) in 1950-51 o 14.2 MMT in 2019-20.

Figure 1 shows the total area of the country, length of the cost line, exclusive economic zone and continental area. India has 3.29 million square kilometres as the area in which the length of the cost line is 8118 kilometres.

India is now one of the world's top producers of fish and fish products because of the recent remarkable rise of its fisheries industry. India produces 7.96% of the world's fish now, placing it as the third-largest producer in the world. The Indian government's ministry of fisheries, animal

Figure.1.1 India Cost Line

husbandry, and dairying claims that since 2014–15, 'the fisheries industry has showed an excellent double-digit average yearly growth of 10.87% earning it the title of 'Sunrise Sector.' Around 14.73 million tonnes (MT) of fish were produced in India overall in FY21, with 3.48 MT coming from the maritime sector and 11.25 MT from the inland sector.

India consumes 4–7 kilogrammes of fish and meat products per person year, compared to a global average of 20 kg. Fish alone accounts for $50 billion in the Indian market, according to data from the Fisheries Ministry of the Indian government. The nation is the second-largest consumer and producer of fish in the world. In addition, the about Rs 1,80,000 crore fresh meat industry in India is very fragmented.

India's urban consumers are using online delivery services more often, particularly for fish and poultry. Both men and women are increasingly shopping at these establishments as more supermarkets and fish hubs are developing, particularly in cities, as they are more convenient, more comfortable, and have space for huge refrigerators to store their purchases. Since the infrastructure in cities is far more advanced, businesses can keep their goods there
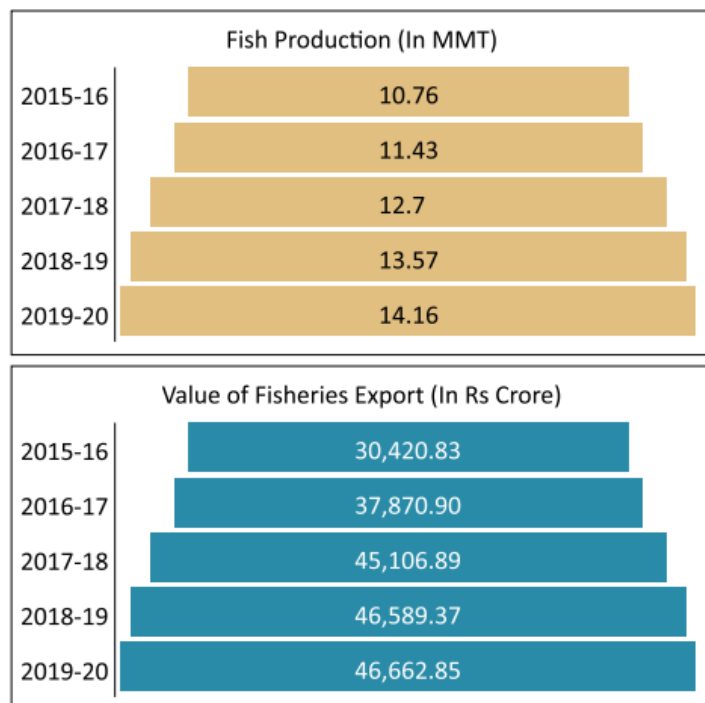
Figure 1.2 Fish Production, Value of Fisheries Export

Source : Secondary Data

without being concerned about frequent and protracted power outages. Fish, meats, and prepared meals are readily available, which encourages more men and women to use them because they save time on buying and preparation.

The use of freeze preservation is advantageous for developing nations with a number of key factors. When compared to other commercial preservation processes, the freezing process is one of the most practical and straightforward ways to preserve food from a technological standpoint. With the right application techniques, the original food quality degrades not much, the availability of various types of equipment helps in it. The freezing industry's large capital expenditure often plays a significant part in determining whether the procedure is economically viable in underdeveloped nations. In terms of cost distribution, the energy used in the freezing process and storage accounts for around 10% of the entire cost. Energy costs for producers may be subsidised depending on government rules, particularly in developing nations, in order to increase output. This can be done by lowering the unit price or the tax percentage.

A society's level of economic growth is closely tied to the percentage of fresh food, seafood, and meat that is frozen. Due to the impact of income on the consumption of high-value goods in emerging countries, as nations get wealthier, their demand for high-value commodities rises. The most perishable goods that can be frozen for preservation are typically the most expensive. As a result, these goods are less in demand in emerging countries. In addition, developing nations have significant challenges competing with developed nations due to the necessity for suitable technology for the freezing process. The transportation, storage, and marketing of frozen food items from the processing facility to the consumer require corresponding improvements and infrastructure. Therefore, these kinds of facilities require a substantial financial investment. The frozen food sector in developing nations has consequently not evolved much in comparison to other nations, especially in rural or semi-rural regions.

Due to the change in customer demographics in recent years, the online delivery of fish and meat has undergone substantial transformation. The rise of working women and the reduction in family size have been the two main trends in consumer behaviour that have been seen during the past 50 years. The amount of time spent on meal preparation decreased as a result of these two considerations. More women entering the labour also improved kitchen appliances and expanded the variety of meals that are readily accessible in the market, ready to eat or ready to cook. In addition, more microwaves are being used, which has an impact on eating habits in general and the market for prepared foods in particular. Microwaves allow for quick meal preparation and more flexibility when planning meals. The online delivery of fish, meat food industry is now only limited by imagination, an output of which increases continuously to supply the increasing demand for products and its variability.

The largest threat comes from how readily customers may switch to another brand's products, despite the fact that we frequently discuss competition and how easily others can enter your sector and become your competitors.

Brand loyalty is the desire to consistently buy the same goods or service, despite flaws, competition, or environmental changes. It is the favourable sentiments about a brand. It may also be shown via other actions, including good word-of-mouth promotion.

Brand loyalty is strongly influenced by brand image. Repurchase intent and brand performance as a whole have a positive impact on a positive brand image and can eventually lead to greater brand loyalty. Additionally, more reputable businesses can promote consumer brand loyalty. When customers believe a product is of excellent quality, their demands are met, which in turn fosters customer satisfaction and loyalty.

'When there are trends toward recognising higher quality, hardware stores' propensity to order is stronger. Purchase decisions are influenced by perceptions of product quality, pressure from the final consumer, and loyalty. If

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customers are happy with their purchase, they are more likely to make another purchase from the business.

1.2 STATEMENT OF THE PROBLEM

India's consumer market has been expanding quickly in recent years. This expansion is said to be caused by India's massive population base, which has raised demand for food items. Over the past ten years, the food industry has seen a considerable expansion of both the market and the product line. In India, the market for fish, seafood, and meat items is also growing online. In this industry, manufacturers compete fiercely with one another. The main participants in the Indian market for food items include a number of businesses with a wide range of goods. Given the country's shifting per capita income, nuclear family structure, taste, and fashion, this industry has a lot of promise for India. Regarding the online delivery of fish, seafood, and ready-to-cook dishes in India, there are still some misconceptions. There is a myth that fish and seafood ordered online are not fresh. Factors like age, gender, educational qualification, income groups may have influence on the consumer loyalty. According to David A Aaker the brand equity components are brand awareness, perceived quality, brand loyalty, brand associations and other proprietary assets. Therefore; the purpose of this study is to determine the- Influence of Brand Equity Components- among Online Consumers of Fresh Fish, Seafood and Meat in Food Category

1.3 PURPOSE OF STUDY

The purpose of this study is to determine the level of brand loyalty among Kerala consumers who order fresh fish, seafood, and meat online. Long-term, sustained corporate performance is correlated with brand loyalty. Organisaions can rely on devoted clients to continue purchasing their branded goods, and they can also take the required steps to foster more fidelity. The process at FreshToHome involves various aspects such as procurement of fresh raw materials, which is fish or meat, processing it, packing it and routing it into different delivery routes. It's a highly perishable food product and needs to be maintained within a specific temperature limit throughout the entire process until it is handed over to the customer so that it remains fresh. The online delivery of fresh fish, seafood and meat industry has a significant growth these days due to the Covid-19. And the increase in the number of smartphones also plays an important role in the growth of the online delivery industry this growth makes us know the expectation of customers towards fresh fish, seafood and meat companies. This context makes the study significant. And the fact that there are many things available today but that consumers are also very conscious of their health is another reason the researcher opted for the study on online delivery of fresh fish, seafood, and meat. They like items free of chemicals like formalin, ammonia, and others. Consequently, this effort will aid in understanding loyalty. Additionally, it aids them in identifying areas for improvement.

1.4 OBJECTIVES OF THE STUDY

1. To identify the awareness about online delivery of fresh fish, seafood and meat in food category
2. To know the effect of perceived quality on brand loyalty towards online consumers of fresh fish, seafood and meat in food category

3. To know the effect of customer satisfaction on brand loyalty towards online consumers of fresh fish, seafood and meat in food category
4. To know the difference in brand loyalty based on gender with respect to online consumers of fresh fish, seafood and meat in food category.

1.6 SCOPE OF STUDY

The study attempts to understand the awareness, loyalty, customer satisfaction of the customers towards the fresh fish, seafood and meat via online delivery. This study analyses the factors that motivate the customer in selecting the online delivery of fresh fish, seafood and meat in food category.

The marketing term known as 'customer perception' includes a consumer's perception, awareness, and/or consciousness of a company or its products. Consumer perceptions of items can be influenced by advertising, reviews, public relations, social media, personal experiences, and other factors. The food jam solidifies between the time of preparation and the time of consumption. Since ancient times, farmers, anglers, and trappers have prepared for the winter by storing their harvest in unheated shelters. Solidified goods don't require any additional additives to avoid food rot as long as the food is stored at a temperature of 9.5 °C (15 °F), which inhibits the growth of bacteria. The upright position of solidified food packaging must be maintained during filling, fixing, solidification, storage, transportation, defrosting, and often cooking. Since the same volume of solidified materials are cooked in a microwave, manufacturers have created bundles that can go directly from the chiller to the microwave. Solidifying is a useful technique for food preservation because it kills off or slows the growth of the germs that cause food to decay. Indian solid food advertising was valued at $ 310 million in 2017 and is expected to increase at a CAGR of over 16% to reach $ 754 million by 2023. This growth will be fuelled by a sharp increase in demand from working class customers who have more disposable

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income. The Scope of the study is to find out how Kerala consumers feel about ordering fresh fish, seafood, and meat online. Is there any loyalty-customer satisfaction exist among them.

1.7 INDUSTRIAL PROFILE

According to estimates, the Indian beef business is growing quickly (18–20% annually) and is already worth $30–35 billion. The consumption of chicken meat is anticipated to reach 3.9 million metric tonnes by 2025 in India, where close to 70% of the population is non-vegetarian. Even yet, the start-up ecosystem has changed the trend in the meat, poultry, and fish selling business by snatching up a sizeable portion of the market. In India, the unorganised sector still holds a near-total monopoly on the meat, poultry, and fish delivery industries. Prior to recently, the majority of people relied on neighbourhood butchers for their supply of fresh fish and meat, which was frequently of low quality and unclean, exposed to pollution and insects like flies, and, in the majority of cases, included antibiotics. There is no standardisation of price, quality, or freshness in these historic marketplaces.

Consumers are increasingly turning to online retailers for their seafood, fish, chicken, and meat needs, especially in metropolitan regions. The primary causes of this are the ease of online shopping and the additional health advantages of acquiring things that are more recent, antibiotic-free, and clean. In India, the lack of high-quality, fresh fish, meat, and poultry is a significant problem that is being significantly addressed by start-ups that provide custom-cut, marinated, and ready-to-cook meat items on a platform powered by technology. For those who don't have the time to prepare their non-vegetarian dinner but still want to dine at home, this is a tremendous relief. By offering certified-quality fish and meat at a defined price, these online start-ups are seeking to level the playing field in the industry. Direct partnerships with

farmers, fishers, and slaughterhouses help them standardise operations on all fronts. In order to create regulations for offering clients safe and hygienic meat products, they are also working with government organisations like the National Meat and Poultry Processing Board (NMPPB). They utilise strict packaging guidelines, cold storage, and other methods to preserve the freshness of their products. Vacuum packing, canning, shrink wrapping, foam trays, and other packaging methods are often used in the fish and meat industries today. By employing hygienically maintained closed containers, these innovative fresh food delivery start-ups are establishing a benchmark for hygienic transport facilities.

With a client retention rate of over 90%, the online fish and meat selling market has a lot of promise. Online fish and meat vendors stand to significantly contribute to the nation's economic growth in the long run if they maintain their current growth trajectory. The way people browse for and purchase products and services has changed as a result of the internet, and this rapidly expanding business sector is no exception. Through a secure system that allows for a quick and safe connection, as well as secure currency conversion and order fulfilment, online shopping offers expertise while also saving time and effort. Businesses may utilise the internet to compile surveys and customer feedback to determine how happy their clients and customers are.

As a result, they may decide whether or not to donate money with confidence. It also helps investors, partners, value holders, suppliers, merchants, distributors, and others learn crucial information about the organization's goods and services. Studies show that people purchase food online more frequently than they do electrical, mechanical, or other goods. Since more individuals are making purchases online, there is a greater need for online merchants.

Because they have a unique option depending on their price range and can discover more about the characteristics of other things, people are thrilled about the potential of buying further goods from an online store. We also know that most people have access to the internet and that many people own cell phones, which

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suggests that they are familiar with online shopping. Additionally, the justification for conducting business online is that users of social networking platforms want to remain connected, and those users are more likely to purchase goods if there is a limited-time deal available. They will be informed if any offers are made. People prefer to make purchases online since doing so allows them to save time by ordering from the comfort of their own home and having it delivered directly to their door. One benefit of internet buying is that delivery costs are lower, and we can receive free home delivery if we spend more than a specific amount.

In comparison to the global average of 20 kg, India eats 4–7 kilogrammes of fish and meat products per person annually. According to figures from the Indian government's Fisheries Ministry, fish alone account for $50 billion in the Indian market. The country is the world's second-largest producer and consumer of fish. There are a number of organization which export fish and other items to across the

Marine Fish Production:2019-20 3.72 MMT.	Inland Fish Production: 2019-20 10.43 MMT.	Total Expenditure for development of Fisheries Sector: 2019-20 ₹ 64025.86 Lakh
Contribution of Fisheries sector in Indian Economy (GVA): 2018-19 ₹ 2,12,915 Crore	Percentage Contribution of Fisheries sector in India Economy: 2018-19 1.24%	Percentage Contribution of Economy Fisheries sector in India Agriculture Sector: 2018-19 7.28%
Total value of Fisheries Export:2019-20 ₹ 46,662.85 Crore	Total Quantity of Fisheries Export:2019-20 12,89,651 Tons	Total Quantity of world Fish Production 178.5 MMT
Consumption of Fish: 2019-20 (Top Five States) Tripura Kerala Manipur Odisha Assam	Post-Harvest Infrastructure :2019-20 Total Fish landing centres - 1548 Major Fishing Harbours commissioned-7 Minor Fishing Harbours commissioned- 62	Fisheries Welfare: 2019-20 Number of houses sanctioned to Fishermen – 4504 Number of Fishermen Insured - 3,586,721 Relief provided to Fishermen under SCR – 765,194

globe. But there are also regional organizations which deliver fish, seafood and other item across India.

Figure 3 is taken from the handbook of fishery2020, published by the government of India, which states that the total production of fish in 2019-20 is 14.16 MMT. The export and consumption of fish is also high. Among this sector there are a number of

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competitors. Studying and analysing them will help us to understand depth of this industry to Indian economics, consumer behaviour.

1.7.1 Success of E-Commerce

Because there is no need for a physical store, the job cost has fallen as internet businesses have grown in popularity, which has resulted in an increase in profit. The demand for physical stores has decreased as a result of the internet commerce. A portion of the foundation is required for a retail site. We can successfully examine cost on an internet store; we do not need to approach someone for information about an item if we create a web-based business site where we can receive any information about any item such as cost, highlight of items, brand of items, and so on.

Individuals who make online requests can pay using cash on delivery (COD), credit card, Mastercard, Paytm, and so on. Purchasing products over the internet is safe and secure. Individuals who collaborate in a specific territory will be able to conduct business from anywhere in the world. These days, communities are also connected to the internet, so people have the option of completing their shopping online. As a result, residents in the neighbourhood continue to receive high-quality goods and services.

Customers no longer need to go to a store or shopping mall because of the internet; we can shop whenever it is convenient for us. Furthermore, an online networking store aids the growth of an online business. It is possible in light of the fact that the vast majority of people use webbased social networking, where advertisements appear and customers desire to purchase those products grows.

1.7.2 Types of e-commerce

Business-to-Business (B2B)

B2B online business refers to transactions between businesses. It is a type of web-based company that coordinates among businesses, also known as e-business, the exchanging of goods, services, or data between businesses rather than between businesses and customers, and it is used to boost productivity for businesses. The vast majority of experts believe that B2B web-based business will continue to develop faster than the B2C segment. For example, indiamart.com, eindiabusiness.com, tradeindia.com, Alibaba.com, and other similar websites.

Business-to-Consumer (B2C)

B2C refers to the practise of selling goods and services directly to clients who will ultimately utilise the company's goods or services. B2C enterprises are the vast majority of companies that sell directly to customers. Any company that relies on B2C sales must build strong connections with its clients if it wants them to return. Business-to-business (B2B) marketing efforts seek to convince other businesses of the value of a given good or service, whereas B2C marketing campaigns strive to elicit an emotional reaction from consumers.

Business-to-Government (B2G)

Business-to-government refers to companies that provide goods, services, or information to governments or government agencies (B2G). Through B2G networks or models, businesses may submit bids on government projects or products that the government may buy or need for their businesses. Those who submit proposals from the public sector may fall under this category. Real-time bidding on the Internet is being used more often for B2G activity. Public sector marketing is another name for B2G marketing.

Consumer-to-Consumer (C2C)

Consumer to consumer (C2C) is a business model where individual customers trade for goods or services without the involvement of a business on either end of the transaction. Today, internet firms handle the majority of C2C transactions. Prior to the Internet, most C2C transactions took place at places like garage sales, live auctions, and newspaper advertisements.

Consumer-to-business (C2B)

C2B is a business model where a customer or end user develops a good or service that a company uses to complete a task or gain an edge over rivals. The C2B method fundamentally alters the conventional business-to-consumer (B2C) paradigm, in which a corporation develops goods and services for consumer consumption.

The various brands of e-commerce for online delivery of fresh fish,seafood and meat in food product category are Freshtohome, Licious, Zappfresh, Bigbasket, Meatwale, Fishmart, Freshpick, Tendercuts, Fish4you.

1.8 COMPETITORS IN THE MARKET

Licious

Licious is a meat and seafood company situated in Bengaluru. The business offers the greatest fish, poultry, beef, and eggs online. They are also all fresh and

hygienic. Licious uses a farm to fork business model and controls the full cold chain and back-end supply network. Their app also has a distinct recipe area. It aids customers in creating delectable meals. Finding safe, delicious, and reliable fresh meat in India has always been a challenge. Licious is a ground-breaking idea in the Indian food sector. The corporation creates a top-notch business that will undoubtedly improve how it sources, sells, purchases, and eats meat in India.

Licious was founded in 2015 by Vivek Gupta and Abhay Hanjura with the intention of addressing the meat issue. With sales rising by 75% from Rs 78.96 crore in FY2019 to Rs 138 crore in FY2020 and YoY growth of 3,000%, it is one of India's most innovative consumer brands. Owning the whole supply chain let Licious scale up more quickly, which led to a six-fold rise in income during the epidemic. The brand averaged 100 orders per day in 2015; by 2021, that number had risen to nearly 20,000. The online meat firm is thinking about going global and entering Southeast Asian regions in order to grow its client base and generate other revenue streams. Additionally, it is thinking of creating physical stores in India. The company secured US$ 192 million in a Series F round in July of this year, with the help of Multiples Private Equity and Temasek, the investment arm of the Singaporean government.

Zappfresh

Zappfresh is a Gurugram-based online meat store. It was founded in 2015 by Deepanshu Manchanda and Shruti Gochhwal, provides fresh chicken, mutton, and seafood, as well as ready-to-cook and ready-to-eat food, and delivers around 2,000-2,500 orders every day, with an average ticket size of Rs 600. The business operates on a farm-to-fork concept, delivering fresh meat the same day. Zappfresh sources its meat and fish from local farms, prepares it in sanitary and wellmaintained facilities,

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then customises it before delivering it to customers as soon as possible. The online meat retailer wants to raise Rs 100 crore in a new round of funding to extend its reach, hire more people, and improve technology. In 2019, it raised Rs 16 crore in a round sponsored by Amit Burman, chairman of Dabur, a consumer goods company. Zappfresh boasts a fourfold increase in revenue year over year. It is currently delivering across Delhi, Ghaziabad, Gurugram, Faridabad, Noida, Chandigarh, Mohali, Panchkula, and Jaipur.

TenderCuts

 TenderCuts, founded by Nishanth Chandran in 2016, is an omnichannel and tech-driven brand that provides clients with freshly cut meat and seafood through its neighbourhood stores, which serve both walk-in and online customers. The company began operations in Chennai and Hyderabad, and only recently expanded to Bengaluru, where it plans to expand its presence in the coming months. TenderCuts raised Rs 110 crore in a round headed by Paragon Partners, a mid-market private equity firm, with participation from Nabventures, a NABARD-backed agri-food tech VC firm. This round also gives the company access to NABARD's network of over 5000 farmer producer associations, which collectively represent over one million farmers.

Jalongi

Early in 2018 Jalongi, an online retailer of fresh fish and seafood with headquarters in Gurugram, started doing business in Kolkata. In 2019, it expanded to the Delhi-NCR area. At Jalongi, you may get seasonal and regional specialties such prawns, mackerel, pomfret, rohu, catla, hilsa, tuna, trout, and upscale foods like salmon and squid crab, lobster, reef cod, baby octopus, etc. Hand-selected goods are obtained from Jalongi's network of coastal farmers and village-level partners, cleaned, cut, processed, and packed in the business's own distribution facilities, transported in self-owned cold chains, and delivered to customers in seven Indian cities. Along with Chennai and Ahmedabad, the brand will broaden its operations in 2020 to cover Mumbai, Pune, Bangalore, and Hyderabad.

Meatigo

Meatigo is an online service that delivers the freshest, highest-quality meat and fish directly to your home. Over the following three years, it expanded to Delhi-NCR, Mumbai, Pune, Bengaluru, Hyderabad, and Kolkata after starting operations in Gurugram in 2017. The startup had 150,000 clients at the time of application, an 85%

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return rate after three years, and monthly purchase volumes between 40,000 and 50,000 in 2020. Meatigo plans to look for outside funding for the upcoming fiscal year. Among the more than 150 products offered are meats (chicken, mutton, hog, and buff), bacon, deli meats, fish and shellfish, spreads, momos, burger patties, and ready-to-cook marinades.

BigBasket

Supermarket Grocery Supplies Pvt. Ltd., doing business as BigBasket, was established in 2011 by the dot-com bubble survivors V.S. Sudhakar, Hari Menon, V.S. Ramesh, Vipul Parekh, and Abhinay Choudhari. It quickly became well-known.''BigBasket, which has its headquarters in Bengaluru, is now the largest online grocer in India and processes more than 150,000 orders daily.With the latest agreement, Tata Group acquired a 64% controlling ownership in BigBasket, making it the company's owner. As of May 2021, BigBasket was valued at around $1.85 billion. After acquiring a controlling share in BigBasket, Tata Sons is now directly competing with big online retailers like Amazon, Walmart, Flipkart, and Reliance Industries. Tata Digital Limited, one of Tata's business units, purchased the stock.

1.9 MARKET COMPETITORS - LOCATIONS

S.No	Company	Cities
1	Freshtohome.com	Bangalore, Delhi, Gurgaon, Noida, Ghaziabad, Mumbai, Pune, Chennai, Hyderabad, Cochin, Trivandrum, Calicut, Kolkata, Warangal, Jaipur, Kanpur, Lucknow, Faridabad, Chandigarh, Mohali, Coimbatore, Vizag, Dehradun, Mysore, Mangalore, Nagpur, Nashik
2	Licious.in	Bengaluru, Hyderabad, NCR and Chandigarh, Cochin, Mumbai, Pune
3	Zappfresh.com	Noida, Delhi, Ghaziabad, Chandigarh, Mohali, and Panchkula.
4	Bigbasket.com	Bangalore, Hyderabad, Mumbai, Pune, Chennai, Delhi, Kolkata, Ahmedabad-Gandhinagar, Lucknow-Kanpur, Gurgaon, Vadodara, Visakhapatnam, Surat, Nagpur, Patna, Bhopal, Noida-Ghaziabad, Kochi, Mysore, Coimbatore, Vijayawada-Guntur, Indore, Chandigarh Tricity, Jaipur.

5	Meatwale.com	New Delhi, Noida, Indore, Mumbai, Ghaziabad, Gurugram, Faridabad, Thane, Navi Mumbai, Greater Noida, Ahmedabad, Meerut & Dehradun
6	FishMart	Karnataka
7	Freshpick	Mumbai, Nashik, Pune, Thane
8	Freshfish Basket	Delhi & Gurgaon
9	Tendercuts	Chennai, Hyderabad, Bangalore
10	Fish4you	Kalyan, Thane

1.10 COMPANY PROFILE

FRESHTOHOME

A variety of fish and meat are available for purchase at Freshtohome, an online grocery store. The variety of items available on the internet includes fish, poultry, mutton, steaks, and fillet. Fish are classified as freshwater, marine, and shellfish. Additionally, it enables vendors to provide the website with their meat and fish. In 2015, Mr. Mathew Joseph and Mr. Shan Kadavil founded Freshtohome.

Founded on June 10, 2011, Freshtohome Foods Private Limited is an unlisted private firm. It is based in Bangalore, Karnataka, and is categorised as a private limited business. Its entire paid-up capital is INR 25.05 billion, and its authorised share capital is INR 35.00 billion.

For the fiscal year that ends on March 31, 2021, Freshtohome Foods Private Limited expects operational sales ranging from INR 1 billion to 100 billion. EBITDA has dropped by -18.18% compared to the prior year. Its book net value has also improved by 481.29% over this time. Freshtohome Foods Private Limited is now in an active state.

According to researcher's data, Freshtohome Foods Private Limited's most recent recorded AGM (Annual General Meeting) took place on September 30, 2021. Additionally, according to researchers data, its most recent balance sheet was created for the time frame ending on March 31, 2021.

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Six people serve as directors for Freshtohome Foods Private Limited, including Basawaraj Mahabaleshwar Tambakad and Ajay Subhash Mittal.

The main reason that FreshToHome was founded was to make fresh meat and fish accessible to everyone. They allow customers in Bangalore, Delhi (NCR), Mumbai, Pune, Chennai, Hyderabad, Cochin, Trivandrum, Calicut, and Thrissur to place daily orders for fish, poultry, and mutton. They go to considerable lengths to guarantee that they avoid using intermediaries and instead get the freshest food possible directly from the farmers or fishermen. Additionally, they use the most cutting-edge, scientific packing and shipping methods from the point of origin to the customer's door. By employing only natural ice as the preservative, this guarantees that the necessary temperature and other parameters for the safe preservation of meats are satisfied.

Freshtohome Foods Private Limited's Corporate Identification Number (CIN) is U51101KA2011PTC059104. Freshtohome Foods Private Limited's registered office is located at No. 201, 2nd Floor, Carlton Towers No. 1 Old Airport Road, Kodihalli, Bangalore, Bangalore, Karnataka.

1.10.1 Processing and Packing units

Fresh to home has got the following processing and packing units across India

1	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd Khata No. 42 Chikkagubbi Village Bangalore East Taluk, Bangaluru Karnataka
2	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd Khata No. 42 Chikkagubbi Village Bangalore East Taluk, Bangaluru

		Karnataka
3	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd No 47, Ground Floor Seneer Kuppam, Chennai, Tamilnadu
4	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd Chandiroor Aroor Village, AP139/26/2 Cherthala, Alapuzha, Kerala
5	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd Ground Floor, Dheeraj Regency CHS LTD Shop No 16, OFF W E Highway Borivali East, Mumbai Maharashtra
6	Freshlicious Super Bazaar Pvt Ltd	Freshlicious Super Bazaar Pvt Ltd Ground & Firs Floor, Khasara 393/1 Khata 00039, Freshlicious Super Bazaar Asgarpur Jagir Village, Gouham Budh Nagar Gonda, Uttar Pradesh
7	Fresh N Honest Foods	Fresh N Honest Foods

		Shop No 1, Khata No 42 Chikkagubi Village, Bengaluru (Banglore) Urban, Karnataka
8	Super Fresh Foods	Super Fresh Foods 1/84 Survey No 26/21 Near Arookuty Jetty Arrokutty, Alapuzha Kerala
9	Fresh Kart Foods	Fresh Kart Foods Ground Floor, 2, Khata No 42, Chikkagubbi Village, Bengaluru (Banglore) Urban Karnataka

A summary of financial information of FRESHTOHOME FOODS PRIVATE LIMITED for the financial year ending on 31 March, 2021

Revenue / turnover

INR 1 cr - 100 cr

Net worth of the company

increased by 481.29 %

EBITDA of the company

decreased by -18.18 %

Total assets of the company

increased by 218.90 %

Liabilities of the company

increased by 183.96 %

Operating Revenue	INR 1 cr - 100 cr
EBITDA	-18.18 %
Networth	481.29 %
Debt/Equity Ratio	0.09
Return on Equity	-62.76 %
Total Assets	218.90 %

Fixed Assets	-41.31 %
Current Assets	322.60 %
Current Liabilities	183.96 %
Trade Receivables	-100.00 %
Trade Payables	155.60 %
Current Ratio	5.25
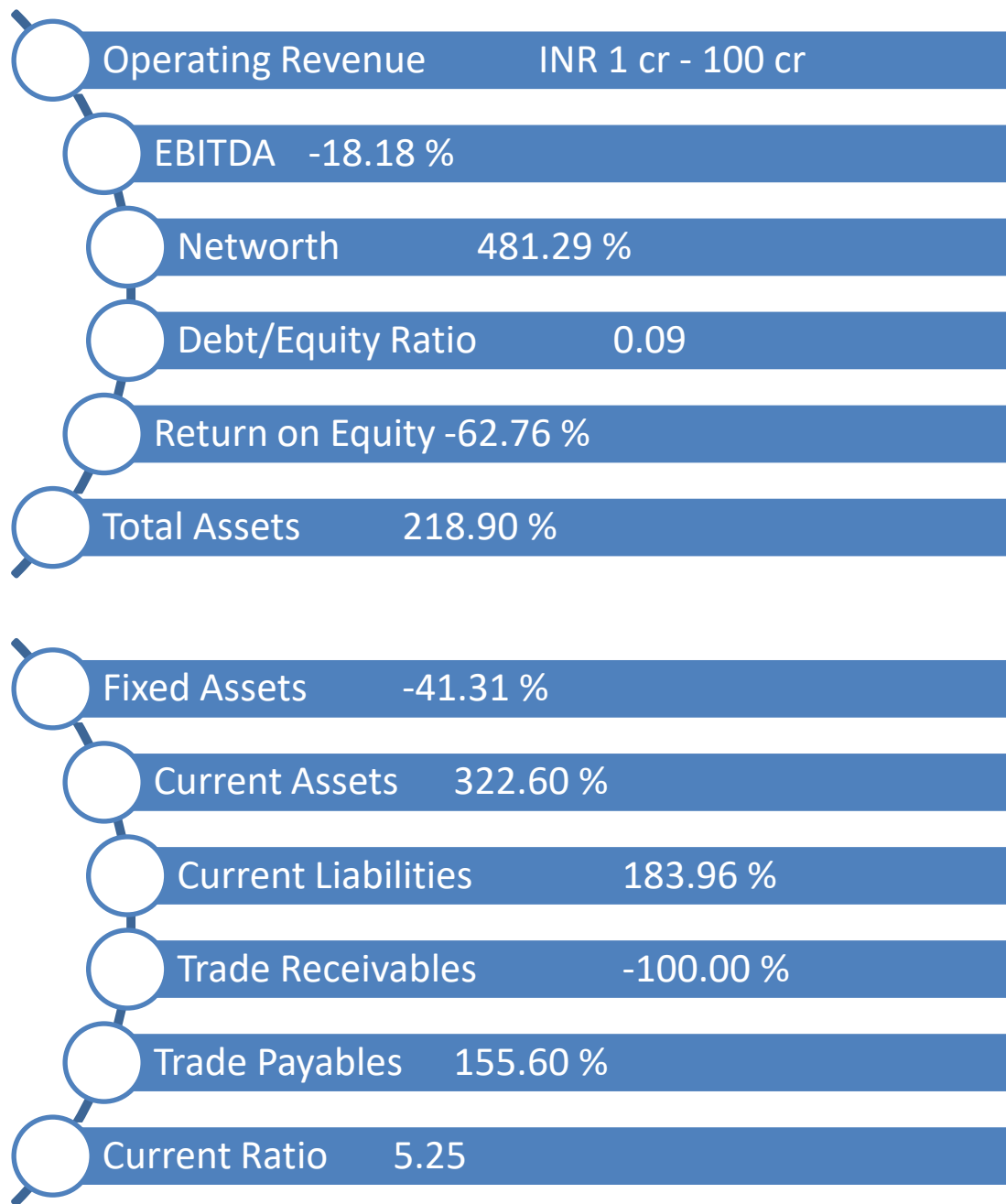
1.10.2 How The Company Works

FreshToHome came to being with the sole purpose of making fresh meat and fish available to everyone. Through them, one can order their daily fish, poultry and mutton.

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The following is the list of hubs and franchises operated by Freshtohome a different parts of Kerala.

Kerala
Alappuzha
Anchal
Angamaly
Attingal
Chalakkudy
Changanassery
Chengannur
Edappald
Etumanoor
Irinjalakuda
Kanjirapally
Karukanchal
Karunagappally
Kattapana
Kayamkulam
Kilmanoor
Kolenchery
Kollam
Kothamanagalam
Kottackal

Kottarakkara
Kottayam
Kottiyam
Koyilandi
Kozhenchery
Kumbanad
Mavelikkara
Moovattupuzha
Nedungadu
Pala
Palakkad
Pathanamthitta
Perumbavoor
Peruthalmanna
Ranni
Thalassery
Thiruvalla
Thodupuzha
Tirur
Vadakkenchery
Varkala

1.10.3 Order tracking process for customers (FTH)

Order received

Queued for processing

Quality check (QC)

Packing and invoicing

Dispatched from processing plant

Arrived at collection hub

Out for delivery
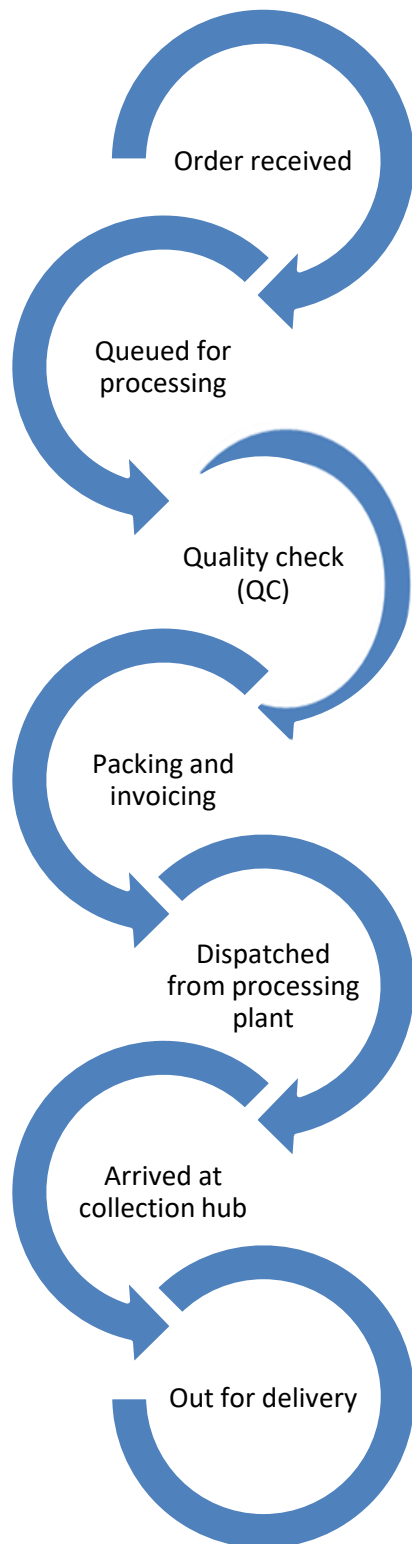
- Order received

Consumers can place orders at any time via company website, app or via phone. There are slots arranged and a cut off time is marked in order to sort the order time and delivery time. It includes morning slot, afternoon slot, evening slot and late evening slot till 7.30 pm.

- Queued for processing

Once the order is placed by customer the company queue it for further processing. The order straightly goes to the inventory and store room section for customizing the items according to the customer requirements like fillet, curry cut, whole, steaks etc.

- Quality check (QC)

Quality checking includes a number of test like ammonia and formalin test, process temperature tracing, cold room temperature, freezer temperature checking, dispatch temperature checking

- Packing and invoicing

Once the product is undergone this process, then it is bring for checking the weight, packing, and invoicing

- Dispatched from processing plant

The products are dispatched from the processing plant with a double layer of squeeze and vacuum packed then in special carts covered with flake ice. This helps the products to remain chilled and fresh until the end customer.

- Arrived at collection hub

The products arrive at the collection from where the delivery boys took each baggage and scan with their scanner in order to find the exact location details and plan accordingly.

- Out for delivery

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- Delivered

1.10.4 Records kept in the Processing unit

Processing unit keeps 22 records for ensuring freshness safety and other measures they are:

Name of the Documents and Records
Material receiving note- Fish and Marinates
Material receiving note- Poultry & Goat
Ammonia and formalin test record
Process temperature tracker
Process time temperature mapping record
Cold room temperature report
Freezer temperature report
OPRP temperature report
Utensils sanitization record
Labeling and packing check report
Dispatch temperature report
Thermometer- internal calibration report
Weight machines internal calibration report
Pest o flash cleaning report
Daily housekeeping checklist

Daily tools inspection report
Personal hygiene monitoring report
Gents, ladies & visitors toilet cleaning report
Schedule of cutting, cleaning, and pacing table report
Production cleanliness checklist
Closing checklist
First aid box inspection checklist

These 22 records are kept updated and the duties are assigned to the employees to periodically update the same. For researchers model the researcher took the processing plant in Kerala and found out the following records. This is the true extract of the office record at the processing plant as on 2022 July 25.

Sl No	Records kept Processing unit	Employee Assigned
1.	Material receiving note- Fish and Marinates	Aneesh
2.	Material receiving note- Poultry & Goat	Aneesh
3.	Ammonia and formalin test record	OPS
4.	Process temperature tracker	Sheeba
5.	Process time temperature mapping record	OPS

6.	Cold room temperature report	OPS
7.	Freezer temperature report	OPS
8.	OPRP temperature report	OPS
9.	Utensils sanitization record	Jithin / Ashwin
10.	Labeling and packing check report	Sheeba
11.	Dispatch temperature report	Sheeba
12.	Thermometer - internal calibration report	Naveen
13	Weight machines internal calibration report	Naveen
14	Pest o flash cleaning report	Naveen
15	Daily housekeeping checklist	Akhil
16	Daily tools inspection report	Akhil
17	Personal hygiene monitoring report	Akhil
18	Gents, ladies & visitors toilet cleaning report	Jithin / Sheeba
19	Schedule of cutting, cleaning, and pacing table report	Jithin / Ashwin
20	Production cleanliness checklist	Jithin / Ashwin
21	Closing checklist	Naveen / Ashwin

22	First aid box inspection checklist	OPS

1.10.5 Product Line

The Company has a product line of Fish and seafood, mutton, poultry, ready to cook products varies from different product length. Currently Freshtohome has 2875 products added to their product mix.

```
                              Product
        ┌───────────────┬───────────┴────────┬──────────────┐
   Fish &            Poultry            Meat/          Ready to
   Seafood                              Mutton           Cook
      │                  │                                 │
  Marine Fish         Chiken                             Kebabs
      │                  │                                 │
  Shell Fish           Duck                          Gravies Curries
      │                  │                                 │
 Freshwater            Quail                            Pickles
    Fish                 │                                 │
                       turkey                        Curtlets & Samosas
                                                          │
                                                        Burger
                                                          │
                                                        Paratta
```
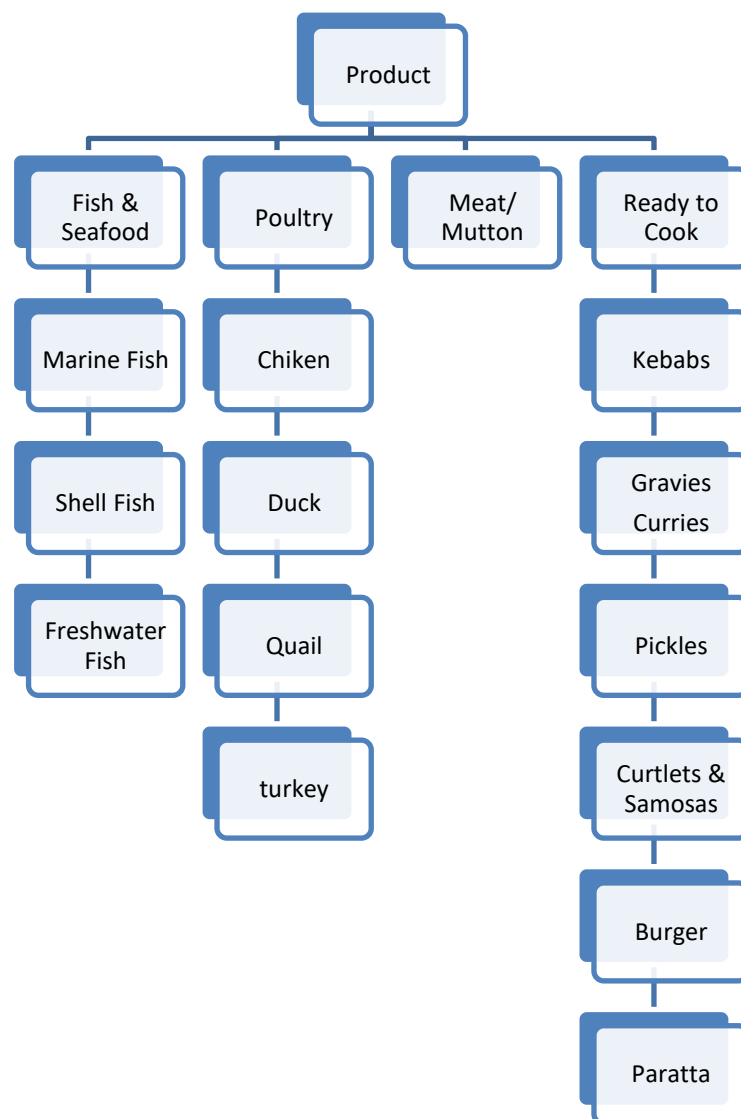
1.10.6 VALUE

Fresh to Home provides its consumers with convenience. Due to their busy work schedules and increasing population density in cities, grocery shopping has become an immensely stressful activity for city dwellers of the working class. Freshtohome offers a wide choice of products to consumers and delivers them according to their preferences. The better service provided by Fresh to Home is valued more by the customers.

1.10 7 RARENESS

As the popularity of online grocery shopping grows, so does the competition, and numerous businesses have entered the market. Fresh to Home is attempting to set itself apart by providing a diverse range of fresh items that are free of preservatives and antibiotics. They also have their own logistics and delivery teams, allowing for superior delivery control.

1.10.8 REVENUE

Due to the increased growth encouraged by the coronavirus pandemic, Fresh to Home has successfully obtained $121 million in a new series C financing round. They have a customer base of ten million people. They currently process 1.5 million orders every month across Mumbai, Delhi-NCR, Bengaluru, Hyderabad, Pune, Kerala, and Tamil Nadu, as well as the United Arab Emirates.

CONCLUSION

The researcher was analysing the industry profile along with organization profile, research problem in this introductory chapter. The objectives of the study and research methodology the researcher trying to implement for his study is also mentioned here. So the scholar gets a clear cut idea about the entire area of the study. Now the researcher is going for a literature review of the topic which is his area of study.

CHAPTER 2

REVIEW OF LITERATURE

INTRODUCTION

The goal of the literature review is to look into relevant research that has been done in the field of study. The factors under investigation are examined, and connections between them are discovered. A review of the literature serves as a vital link between the proposed research and previous investigations. It informs us about features that have already been established or concluded by other writers, and it allows us to evaluate the evidence gathered by prior study, allowing us to place our current research work in the correct context. A literature review is also necessary to identify variations in viewpoints, contradictory findings or pieces of evidence, and the reasons presented for their conclusions. An analysis of these aspects can sometimes help one grasp many facets of a complex subject, and other times it can lead to new options that can be investigated in the current project.

2.1 REVIEW OF LITERATURE

2.1.1 Brand

A brand is described as 'a name, word, sign symbol (or a mix of these) that identifies the producer or seller of the product' in the book 'Principles of Marketing' (Kotler & Armstrong, 1980). A brand is therefore a repository for trust. Intangible assets are defined as 'distinctive images and associations in the minds of stakeholders, consequently producing economic benefit/values,' according to ISO brand standards. The definition of a brand is 'any name, word, design, symbol, or other attribute that distinguishes the goods or services of one seller from those of other vendors' (American Marketing Association, 2017). They assist in influencing how people see organisations, their goods, or particular persons. Brands frequently employ distinguishing characteristics to build their identities in the marketplace. They provide

the business or person a significant competitive advantage over rivals in the same industry.

2.1.2 Brand Awareness

Brand awareness teaches how to be conscious of both existing and future customers' attitudes about your good or service. Brand awareness is the likelihood that customers are aware of a company's product and service's availability and accessibility. If a company has an effective brand awareness strategy, it signifies that its goods and services have a solid market standing and are simply accepted. (Gustafson & Chabot, 2007).

Due to customer awareness of the brand and its distinctiveness, brand awareness plays a crucial part in the decision to buy a good or service. It may also influence how consumers perceive risk and how confident they are in their choice to buy. When deciding whether to acquire a good or service, a brand must be taken into account; otherwise, it's likely that no option will be available (Baker et al., 1986). Brand awareness makes it easier for people to remember a certain brand (Stokes, 1985). Customers' brand awareness may be measured at many levels, such as brand recognition, recall, dominance, and brand knowledge, or what the brand means to them (Aaker, 1996). Being aware of your brand is crucial because without it, there would be no communication and no transactions (Percy & Rossiter, 1992). Some customers may set criteria to limit their purchases to just well-known brands. (Keller, 1993).

2.1.3 Brand Recognition

The capacity of customers to affirm that they have seen or heard of a certain brand previously is referred to as brand recognition (Keller, 1993). The consumers are not

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need to know the brand name in order for this to work. Instead, it implies that customers can identify the brand when it is presented to them, whether at the point of sale or after seeing its visually appealing packaging. (Percy & Rossiter, 1992).

2.1.4 Brand Recall

Any brand that wants its customers to remember it at the time of purchase has to have brand symbols. Different strategies are employed in advertising to get customers' attention, but brand recognition and recall are the most common ones (Rundus, 1973). Brand recall, sometimes referred to as unassisted recall or spontaneous recall, is the consumer's capacity to properly recall a brand when presented with a product category (Keller, 1993). Most customers can only recall a small number of brands when asked about a certain product category, usually 3-5 brand names. Few people can recall more than seven brand names from a particular category in consumer testing, and for low-interest product categories, most people can only remember one or two brand names. (Greenland et al., 1972).

***Aided and Unaided Recall*:** Aided and unassisted recall are two techniques used in qualitative marketing research to retrieve information from memory. Unaided recall is the customer's capacity to recognise the brand on their own without assistance. A customer's capacity to recognise the brand from a hint is referred to as assisted recall.

2.1.5 Top-of-the Mind Awareness

Top of mind brands are those that a buyer can name off the top of their head and is the first thing that comes to mind. Top of the mind awareness refers to the brand that customers think of first when they are unpromptedly questioned about a particular category (Farris et al., 2010). Typically, consumers choose one of the top three brands from their list of options. When customers choose quickly between competing brands

in low-commitment sectors or when making impulse purchases, top-of-mind awareness is important. (Driesener et al., 2004).

2.1.6 Brand Loyalty

Brand loyalty is the propensity of a consumer to buy a specific brand within a particular product category. It occurs when consumers think a brand offers the optimum product characteristics, images, or level of quality at the ideal price. This impact may encourage loyalty and repeat business. As a result, brand loyalty is linked to a customer's preference for and relationship to a brand. It could occur because of a protracted history of using a product and the trust that has developed through time.

Brand loyalty is considered to be the preference of consumers to purchase a particular brand in a product category. It happens when consumers realize that a brand offers the right features of product, product images or level of quality at the right price and this perception will lead to repeated purchase resulting in brand loyalty. Therefore brand loyalty is related to a customer's preference and attachment towards a brand. Olson and Jacoby (1971) expressed loyalty in the form of 'repeated purchase' of the brand. David A. Aaker defines brand loyalty "as the measure of attachment that a consumer has towards a brand". Brand loyalty, according to him, reflects how likely a consumer will switch to other brands when a brand makes changes in product price or its features (Aaker, 1991).

One of the most comprehensive and widely utilised conceptual explanations of brand loyalty was published by Jacoby and Chestnut (1978). According to Jacoby et. al 's definition of brand loyalty, it is the biased behavioural reaction that some decision-making unit exhibits over time toward one or more alternative brands out of a group of such brands and is a result of psychological decision-making and evaluative processes.

Olsen and Jacoby (1971) used factor analysis to conceptualise brand loyalty and found that it is related to the following factors: the percentage of purchases devoted to the most purchased brand, the number of different brands bought over the previous two years, the number of times the favourite brand was bought out of the last five purchases, three consecutive purchases out of the last five purchases, and the actual number of consecutive purchases of the favourite brand (Smith). Brand loyalty is described as 'repeated purchasing' of the brand by Cunningham (1956), Day (1969), Buford, Enis, and Paul (1971), Olson, and Jacoby, according to Smith's assessment (1971). (Smith, 2003).

Brand loyalty, according to David A. Aaker, is the degree of attachment a client has to a specific brand. He claims that brand loyalty measures a consumer's propensity to switch brands when a company alters a product's characteristics or price. Aaker contends that a brand's value mostly depends on the steadfastness of its patrons. Therefore, if consumers buy based on features, price, and convenience with minimal consideration for the brand name, there could not be much equity. (Aaker, 1991).

Brand loyalty is pictured by Aaker as a five-tiered pyramid. The least loyal consumers are individuals that have little interest in a specific brand and think that any brand would be adequate, with the impact of the brand name on purchases being negligible. The second level is made up of people who are either pleased with the product or are at least not unhappy. The following level includes content customers who incur switching costs, those who do not want to risk switching goods, and those who could be referred to as habitual customers. The next stage is loyal patrons who see the brand as a friend. The fifth level is represented by the loyal customer, or people who are extremely brand loyal. They are people who will enthusiastically promote the products and act as customers. (Aaker, 1991).

According to Park et al. (1986), brand management calls for the creation and maintenance of the brand image. Theoretically, all products and services might be represented by functional, symbolic, or emotive elements that contribute to brand identity. There hasn't been consensus among academics on what a brand image is yet.

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In prior research, researchers have generally characterised brand image from four perspectives: generic definitions, meanings and messages, personification, and cognitive or psychological components.

2.1.7 Customer-Based Brand Equity

The phrase 'customer-based brand equity (CBBE),' which Keller first used in 1993, refers to the various reactions to a branding effort from customers with various levels of brand knowledge. In other words, brand image and brand awareness serve as the cornerstone and wellspring of brand equity. Thanks to marketing efforts, consumers are aware of a brand. In this regard, before clients may respond favourably to a branding endeavour, brand awareness must be built and understood. A company may be able to boost sales while spending less on brand expansion if customers are aware of a brand.

Gender

According to Deval Patel and Raju Rathod (2017), a number of variables, such as brand characteristics, demographic characteristics, ethical concerns, dietary preferences, and food preferences, have an impact on buying decisions. Muhammad Abid Saleem, Allah Wasaya, and Sadar Zahra highlighted how nutritional components affect a customer's willingness to buy frozen food (2017).

Gender is a concept influencing buying behaviour in many ways. While biological, physical and psychological differences between men and women affect buying directly, masculine or feminine characteristics which salesmen attribute to products or which come into being in society themselves raise the significance of gender in this respect (Arnould et al., 2005, p.511).

Lots of psychologists treat masculinity and femininity as two different circumstances and emphasize that they can be seen as a phenomenon progressing independently from biological gender in individuals (Palan, Charles and Kiecker,

1999, p.64). While masculinity characteristics are usually extrinsic and rational, femininity characteristics reveal themselves on the contrary (Pira and Elg¨un, 2004, p.529). Brands can be feminine/masculine like humans therefore together with the change of consumption habits, products deemed masculine or feminine are being tried to be marketed in a way to make them attractive for both parties (Thompson, 2005, p.82)

Gender is considered to be critically influential in the purchasing process. Gender as a marketing segment is a decisive factor in terms of market penetration. As more and more women are becoming more powerful and active in purchasing activities, ignoring gender differences when devising marketing strategies may bring problems. In some studies, women tend to be relatively more emotional, while men are considered to be relatively more aggressive and autonomous.

Argyle and Henderson (1984) pointed out that female customers generally tend to give higher ratings for performance than males. In addition, females may intend to have affiliation with people and place more emphasis on social interactions when they are served by others. Furthermore, gender differences can lead to different food choices. Some studies have shown that unlike most males, females pay more attention to food and they are more concerned about food choices. Studying the moderating effects of gender on customers' is very necessary as it may contribute to a better understanding of different gender groups, which will also minimize research gaps within prior studies and reduce market segmentation problems.

Gender differences also play an important role in food consumption. Some studies have indicated that female and male customers generally have different requirements for food, suggesting that females place more emphasis on attributes of food quality, such as taste, presentation, and menu variety, but males place more emphasis on portions. Buda, Sengupta, and Elkhouly (2006) noted that gender and education have implications for service quality dimensions that include tangible elements, such as physical facilities and equipment. Holbrook (1986) also indicated that females are more sensitive to visual and romantic elements than males. Still,

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studies related to how gender can influence customers' judgement of food quality remain comparatively limited in quantity.

According to the Uncelsu (Evanschitzky et al., 2012) loyalty can be viewed in several dimensions and models as well as onedimensional attitude that leads to respect the customer and a particular brand or service and products; as characteristics of repeated behavioral; as well as the repeated purchase guided by individual characteristics and the reasons for the customer. Oliver claims that the it should be clearly separated the brand loyalty and product or service satisfaction because satisfaction is only one element of loyalty, but certainly not the only one (Lin and Liang, 2011), and it should not be confused neither exclusively to the act of repeated purchases because it depends on many other factors (Iglesias et al., 2011).

Loyalty is considered the key in the survival of the business (Marti, 2011), especially in the context of e-commerce. Studies show that 5% of customer retention increases profitability in the range 25% - 85%. Loyalty generates a positive recommendation to the impact on the behavior of other potential clients. In addition, faithful and loyal customers are less likely to change supplier, the place of purchase or brand because of the price. The terms of satisfaction and loyalty are so closely linked, and the concepts of satisfaction, value and loyalty are supported by empirical evidence, as shown in Figure 1 (Hoisinggton and Naumann, 2003).

2.1.8 Customer Perception

Customer perception is what consumers believe about a company, a brand, or its products. A customer's emotions, perceptions, restraints, predispositions, expectations, or past experiences may be favourable or negative. Supimma s Thiernhirun (2017) looked at how the brand name and qualities of the product affected how ready-to-eat food was perceived in Thailand and Japan.

2.1.9 Perceived Quality

According to Aaker (1996), perceived quality is one of the important components of brand equity and it can be defined as the "overall perception of customers about brilliance and quality of products or services in comparison with the rivalry offering". Zeithaml (1988) states that the product quality and perceived quality are different because the perceived quality is the "buyer's subjective appraisal of the product" and he argues that the perceived quality can act as a key factor in forming consumer's choices.

2.1.10 Customer Satisfaction

Customer satisfaction was proposed by Cardozo (1965) into marketing and it became a key measure of the performance of any business as well as the leading indicator of the development of new products. The satisfaction of a customer relies on the result of the use of the goods conforming to customer expectations (Cardozo, 1965). If the result is above expectation level, they were satisfied; otherwise they were dissatisfied. According to Hemple (1977) customer satisfaction was expressed as the "degree of realization of the product or service benefits the customer expected, and it reflected the consistent level of the expectation and actual result". Customer satisfaction was generally considered as the "customer's overall attitude towards a product/service".

2.1.11 Perceived Quality and Brand Loyalty

Past studies in the field of marketing have established the relationship between perceived quality and brand loyalty (Biedenbach & Marell, 2009). Perceived quality helps consumers to evaluate brands and differentiate a particular brand from its competitors, which in turn is useful in their buying decision. Perceived quality is seen as an important factor that strengthens the perceived superiority of the brand, which eventually makes the brand perform better than its competitors (Muskat et al., 2019; Khan et al., 2019). In general, the high-quality brand will generate a sense of self-

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esteem, which drives consumers to buy repeatedly and reduce the possibility of switching to other brands (Atulkar & Kesari, 2017; Thompson et al., 2014). Based on the evidence from the previous researchers mentioned above, the researchers proposed that perceived quality positively influences brand loyalty in the context of online delivery of fresh fish, meat,

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2.1.12 Customer Satisfaction and Brand Loyalty

There was much research conducted to investigate the relationship between satisfaction and loyalty (Olsen, 2007; Balabanis et al., 2006; Szymanski and Henard, 2001). If consumers are satisfied with the product/service/brand, they may recommend it to others and are less susceptible to switching to another brand, and may continue to buy the same brand again (Bennett and Rundle-Thiele, 2004). The result of the meta-analysis conducted by Szymanski and Henard (2001) indicate that satisfaction as a direct precursor to loyalty. A lot of studies (Szymanski and Henard, 2001; Johnson et al., 2001; Oliver, 1999; Zeithaml et al., 1996) claimed that satisfied consumers exhibit more loyal behavior.

2.1.13 Nutrient Content of Fish

 Kris-Etherton PM, Harris WS, and Appel LJ (2002) says fish is an important source of food and provides an essential contribution to human health given its high protein content but also the wide range of essential micronutrients, including various vitamins, minerals, and polyunsaturated fatty acids (PUFA) of the n–3 family (colloquially, omega-3 fatty acids), mainly eicosapentaenoic acid and docosahexaenoic acid (DHA) 3 Ximig Zhan, Da Wen Sun, Qi Jun Wang, Zhiwli Zhu (2017) found that freezing of meat including fish meat helps preserving its freshness and nutrients and novel methods have been introduced to reduce the weakness conventional methods.

2.1.14 Frozen Food

According to Vemuri Veena Prasad's research from 2017, the rise in the number of working women has created a demand for frozen dishes that are easy to prepare. Colm O'Donnel and Kumari Shikha Ojha (2016) found that one of the most popular techniques for protecting food is hardening. According to Webmaster LBA (2016), the rise in nuclear families presents a significant growth opportunity for the packed frozen sector in the foreseeable future. According to research by Sunder Srinivasan and Kiran Muralidhar Shende (2015), there has been a noticeable change in the food consumption habits of urban Indian households as a result of the rising popularity of western cuisine.

Gunjan Malhotra and Amit Malhotra (2014) looked explored how customer preferences affect the use of packaged, ready-to-eat foods in India. According to research by Asma Hawa, Harsh Kanani, Mansi Patel, Neha Taneja, Priya Maru, Saloni Gopani, Sarfaras Kaliwali, Shadak Sharma, Shivam Sharma, and Siddhi Patel (2014), consumers are becoming increasingly aware of dietary supplements in the retail sector.

According to Loreal H. and Lahsen A. (2006), consumers also view fish as a nutritious diet, especially when compared to meat, which is the primary source of protein alternative. However, fish is also more perishable when compared to other fresh meat commodities. According to Vijaybaskar, Sundaram (2012), a number of causes have led to significant changes in Indian cookery and lifestyle. According to Heising JK, Dekker M, Bartels P V, and (Tiny) Van Boekel MAJS (2014) and Farber JM (1991), the development of inventive packaging that will enable an extension of the shelf life of food in order to reduce food waste is also a focus of the growing trend to create more environmentally sustainable food industries. According to Dissaraphong S, Benjakul S, Visessanguan W, and Kishimura H (2006), packaged food can undergo a number of changes over time as a result of metabolism or microbial development. For instance, alterations in gas evolution or microbial buildup

can be utilised to learn more about the condition of food, such as its freshness or degree of deterioration.

2.1.15 Hygiene Quality

The hygienic quality of such food rapidly deteriorates due to microbial cross-contamination from various 4 sources, ultimately leading to spoilage, according to Castro P, Padron JCP, Cansino MJC, Velázquez ES, and Larriva RM De. (2006) and Soncin S, Chiesa LM, Panseri S, Biondi P, and Cantoni C (2009). Fish have a wide variety of bacterial taxa, which frequently mirror the makeup of the water's microflora. It has been extensively noted how bacteria contribute to the degradation of fish products. Multiple chemicals, including biogenic amines, organic acids, sulphides, alcohols, aldehydes, and ketones, as well as the emergence of an unpalatable and undesirable 'off-flavour,' are produced as a result of microbial growth and metabolism. According to Jorgensen LV, Huss HH, and Dalgaard P. (2009), oxidation of lipids is a significant contributor to salmon degrading during chilled storage, which is the primary reason for a decrease in shelf-life. Rancidity is caused by lipid oxidation, which can be enzymatic or non-enzymatic. According to Mai NTT, Gudjonsdottir M, Lauzon HL, Sveinsdottir K, Martinsdottir E, Audorff H, Reichstein W, Haarer D, Bogason SG, and Arason S. (2011), the kind of product, storage temperature, feeding practises, and harvesting techniques all affect how quickly a product degrades.

According to Chiesa L, Panseri S, Pavlovic R, and Arioli F (2018), biogenic amines like putrescine, cadaverine, histamine, tyramine, spermidine, spermine, and tryptamine that build up as a result of microbial decarboxylation of amino acids are additional biomarkers for the identification of fish degradation. Traditional techniques to evaluate freshness, particularly throughout shelf-life, rely on human senses; while necessary, they don't offer any quantitative information for ruined food. According to Soncin S, Chiesa LM, Panseri S, Biondi P, and Cantoni C (2006), techniques that may accurately assess the state and quality of food by quantifying signs of deterioration by

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chemical or biological means have been widely discussed in the literature. In order to assess the freshness of meat, fish, and poultry, Arvanitoyannis IS and Tsitsika E state that microbiological analyses and the quantification of volatile organic compounds (VOCs) are frequently used. For instance, VOCs are traditionally detected by headspace techniques coupled with mass spectrometer.

2.1.16 Supply Chain Management

In a competitive business, supply chain management has grown in importance. Businesses need to have a suitable supply chain management strategy if they want to compete at the supply chain level. To improve the performance of supply chain participants, the strategy must coordinate and integrate throughout the supply chain (Green Jr. et al., 2008; Cohen and Roussel, 2005; Wisner, 2003). According to Mason-Jones et al. (2000) and Lewicka (2011), supply chains must select a strategy that is appropriate for both their specific product and market. The first step in growing the supply, according to Fisher (1997) is to consider the nature of the demand for an organization's product, proposing that these are either functional or innovative.

Standard, creative, and hybrid supply chains were explored as being essential to match three different types of products by Vonderembse et al. (2006). They show how a lean supply chain should be used to create conventional items, which are frequently straightforward with little room for diversity. Continuous improvement techniques are used in lean supply chains, and waste elimination is the main goal. However, creative items that could make use of cutting-edge technology need a flexible supply network. Agile supply chains adapt to quickly shifting international markets by being adaptable and dynamic across enterprises. Hybrid products, which are complicated products with several parts and participating businesses in the supply chain, may be required to have a range of supplier connections, or hybrid supply chains. In order to fulfil the

demands of complex products, hybrid supply networks combine the strengths of lean and agile supply chains.

There are three different types of supply chain strategies, according to Towill and Christopher (2002): agile supply chains, lean supply chains, and hybrid supply chains. In their study, a case study was given to demonstrate how a lean and agile supply chain may be effectively merged to create a lean/agile supply chain strategy, or "hybrid" or "leagile" supply chain, as they refer to it. According to Naylor et al. (1999), "legality" is the combination of lean and agile concepts with the use of a supply chain decoupling point.

To enhance the long-term company performance and their supply chain, supply chain management techniques include a collection of methodologies and procedures that successfully integrate with suppliers, manufacturers, distributors, and customers (Chopra and Meindl, 2007; Tseng 2010).

According to Stevens (1990), Stock et al. (1998, 2000, and Narasimhan and Jayaram (1998), supply chain integration is the degree to which all of an organization's operations, suppliers, and consumers are connected. Effective communication amongst all supply chain participants is required for supply chain integration. Procedia - Social and Behavioral Sciences 40 (2012) 225–233 contributors Inda Sukati et al (Turner, 1993). Information and customer responsiveness are closely related, making effective information utilisation crucial to achieving customer responsiveness. In order to bolster this claim, Daugherty et al. (1995) discovered a favourable relationship between the availability of information and customer response, which enhanced business performance. Customers are the ones that drive the need for flexibility because they demand choice, quality, competitive pricing, and quick delivery. Due of this, businesses have been compelled to alter designs swiftly and adapt to client wants more quickly in order to maintain their competitive advantage.

The supply chain exemplifies the whole array of activities necessary to take a good or service from conception through the various stages of manufacturing and delivery to customers. Supply chain analysis examines each stage of a company's operations, from the procurement of raw materials through the final customer. The objective is to provide the greatest value at the lowest overall cost feasible. Market chain analysis tries to offer data on the various agents in the supply chain's profitability. The whole supply chain is seen as one process. The chain's several divisions each have a single point of accountability that is delegated to a functional area like production, purchasing, distribution, or sales. Surplus in a supply chain is the overall profit split across all stages and intermediaries. The supply chain is more successful the higher the supply chain surplus. Success in a supply chain is determined by total surplus rather than profit at each stage.

The supply chain structure has six drivers:

Facilities: It includes production and storage facilities as well as locations used for assembly, fabrication, and storage of inventories.

Inventory: A supply chain's inventory of raw materials, items still in development, and finished commodities.

Transportation: it includes a variety of forms of transportation as well as routes for moving merchandise throughout a supply chain.

Information: Statistics and research on the supply chain's buildings, transportation, and inventories.

Sourcing : The process of outsourcing and doing tasks by a company.

Pricing: The cost a company charges for the products and services it offers to the supply chain.

2.1.13 Cold Chain Management

Cold chain management is crucial in the fish industry. Fish are highly perishable as they are prone to quality (i.e. freshness and wholesomeness) deterioration. Maintaining fish at the correct temperature from catching until it reaches the consumer will ensure optimum freshness and quality. Fish starts to spoil from the time it is caught and this spoilage due to enzyme activity, bacterial growth and oxidation continues throughout its shelf life. All of these activities can be controlled to a great extent by reducing the temperature to keep the fish fresh. Hence, cold chain management is critical to preserve the safety and quality of fish products. Careful handling and proper storage are needed at all points in the supply chain, from the fishing boat or fish farm to the points of retail, wholesale or to the processing plant and until these fish products reach the consumers. A cold chain is one of the most critical requirements to ensure the safety and quality of fish. It implies a temperature-controlled supply chain to maintain the ideal storage conditions for perishable and temperature-sensitive products, from the point of origin to the point they reach the consumers. Time and temperature play an important role in the cold chain management. Low temperature conditions can slow down the spoilage of fish during handling, storage and transportation, thus ensuring high standards of safety and quality for consumers.

2.1.17 The Supply chain for Fish and Seafood

First of all, there are places in every product supply chain where adjustments might be made. However, the supply chain must be considered as a whole in order to reap genuine benefits. Controlling the quality characteristics of raw materials may not yield much if improper freezing and storage techniques are used throughout processing and distribution.

Better raw materials often maintain their quality better during freezing and frozen storage. The techniques involved in freezing and storing fish items frozen are

intricate. These changes can be observed using a variety of measuring methods. The importance of the measured changes must, however, always be connected to discernible sensory alterations and, eventually, to customer reaction.

Frederiksen, M. (2002) says, Species and product types have an impact on the seafood supply chain. The supply chains for frozen seafood products and wild caught fresh seafood (seafood in ice at roughly 0°C) vary. The fish products are transported by refrigerated trucks, ensuring that they reach in good shape.

Fish are split into two main divisions based on their habitat: demersal (dwell at or near the bottom) and pelagic (living at different depths on the water column). Fish morphology, in general, is evolved to strive differently according for their habitat. When it comes to the design of processing machinery and how it is handled and kept on board, the form of the fish is obviously significant.

Fish, crustaceans, and mammals quickly degrade after passing away as a result of several biochemical and microbiological breakdown pathways. On-board storage conditions have a significant impact on the quality of produced fish products and, consequently, on their market value once fish have been captured. Therefore, the best combinations of both sanitary handling procedures and refrigeration are crucial factors to take into account in order to ensure the safety and wholesomeness of seafood. In this sense, a number of on-board handling systems, including storage in conventional ice, flake-ice, slurry ice, "slush1" ice, chilled sea water (CSW), and refrigerated sea water (RSW), in combination with the addition of chemicals, have been proposed in order to preserve the greatest portion of a fish catch in an acceptable manner. These chilling techniques have historically enabled the slowing of both the autolytic breakdown pathways and the microbial degradation processes in aquatic food items. Ranken, M.D.; Kill, R.C.; Baker, C. (1997) , Pineiroa, C.; Barros-Velazquez, B.; Aubourg, S.P. (2004)

2.1.18 Processing

Chilled or Frozen

Pre-freezing, the freezing procedure, and frozen storage/product distribution are the three primary areas where the main determinants of frozen fish quality may be found. These key aspects apply to all fish processing in general. The consumer handling stage of any supply chain is one of the least well defined parts of the process, and it is here when potentially serious thermal abuse may take place. In actuality, thermal abuse may include subpar cooking as well as the frozen condition Hedges, N. (2000).

Because gradual freezing harms the texture of the body, chilled temperatures much below 0°C should be avoided. Accurate temperature control is necessary for the super-chilling procedure to be successful. In addition to the technological challenges of maintaining this precise temperature, a significant drawback is that the material does partially freeze and must thaw out before processing can begin. However, it is usually better to aim for a temperature above the freezing point of water but below 5°C to prevent excessive ice wastage. Ranken, M.D.; Kill, R.C.; Baker, C. (1997) says, it is crucial to emphasize that the ice should completely enclose the fish, not merely serve as a cover, for effective chilling.

Chilling

Ranken, M.D.; Kill, R.C.; Baker, C. (1997) and Harvie, R. (1998) says The most crucial quality control method for fresh fish, including food safety, is chilling. After catching, quickly bringing the temperature down to 0°C and maintaining the cold chain successfully prevents enzyme, bacterial, and rigour spoilage for up to 12–14 days. The development of any existing harmful organisms is also reduced at the same time.

Despite being typically refrigerated, post-catch and post-mortem care of fish differs from that of meat. The most crucial element for fish quality is by far the lowering of

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fish temperature to about 0°C. Harvie, R. (1998) says, it is important to do this as soon as possible. Hedges, N. (2000) says, The rates of enzymatic- (and microbial-) driven alterations happening post-mortem will be slowed down by rapid cooling.

Ranken, M.D.; Kill, R.C.; Baker, C. (1997) says There are two very different ways to refrigerate cold goods. These are the actual chilling process, in which the food is cooled from a cooking temperature of over 70°C or from an ambient temperature of about 30°C, and chilled storage, which is kept at a tightly regulated temperature of between -1.5°C and +15.0°C depending on the product. Although certain chilling equipment may be used for chilled storage, storage equipment is not meant to cool items; rather, it is designed to maintain temperature. Harvie, R. (1998) says, Chilling equipment and chilled storage equipment have quite distinct needs and designs. Hedges, N. (2000) says, Transport refrigeration for chilled food distribution is a unique kind of storage, thus it shouldn't be anticipated that transport equipment would deliver quick chilling.

2.1.19 Cooling Techniques

Immediately chilling seafood after harvest to a temperature just above freezing and maintaining that temperature through additional processing are crucial to its preservation. This also holds true for seafood that will be frozen, since freezing just serves to stall or delay the rate of decomposition. Ice, ice-water combinations, and refrigerated seawater (RSW) are all common ways for chilling and preserving fish. RSW often offers a temporary source of refrigeration, especially if colouring and texture changes are a problem. WANG, M.J.; Goldstein, V. (2003).

For more than a century, ice has been utilised to prevent the rotting of seafood. High cooling capacity is provided by the latent heat of fusion of ice (335 kJ kg-1). Seafood

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is kept cold, wet and shiny by ice. Additionally, it stops dehydration. Ice kinds that have been in use for many years include block or crushed block ice, tube ice, flake ice, and shell or plate ice. The slow chilling rate when utilising conventional ice, whether it is put straight to fish or first combined with water, is a frequent and significant issue. Traditional ice fragments also have uneven forms and sharp edges that might cut the fish's skin. Seafood that has been partly frozen by the super-cooled flake ice may have a lower market value. The conventional approach is also criticised for its heavy energy use and large space requirements for the ice equipment. WANG, M.J.; Goldstein, V. (2003).

Ice has always been used to pre-chill fish, and it is the most effective way to do it. This provides a number of benefits. The first is that there is excellent contact between the fish and the ice, which allows for efficient heat transmission from the fish to the ice. The second is that a significant quantity of heat energy must be taken from the fish in order for the surrounding ice to melt. The drawback of icing is that it may be labor-intensive, and for fish packed in crates, there may not be ideal contact between the fish and ice. Ke, L.C.B.; Chang, J.; Chyuan, Y.S.; Pan, B.S. (1998). Hedges, N. (2000)

It is possible to employ crushed, block, flake, or tube ice, among other varieties. With the exception of when the ice is very mushy, when the impact is smaller, the cooling effect of each form is essentially the same. The ideal ice to use with fish, whether on board the capturing vessel, at a processor's facility, or in a retail or catering place, is probably flake ice, which is 'dry1', light, contains small pockets of air between the flakes, and does not congeal into lumps. Because there is liquid water present, solid ice is melting in excellent contact with the surface of the fish, which causes cooling. In actuality, ice cooling is more efficient the hotter the environment is because more melting occurs. Hedges, N. (2000), Ranken, M.D.; Kill, R.C.; Baker, C. (1997)

Flake-ice is a widely used preservation technique to quickly remove heat from aquatic food items and to increase their shelf life. A common method for bringing fresh aquatic food items' ultimate temperatures down to values just over 0°C has been and is flake-ice. Aquatic food items are poikilothermic species with a high water and non-protein-nitrogen (NPN) content, a soft muscle and skin structure, and a low collagen content, it should be emphasised. These characteristics make these items among of the most perishable foods, necessitating an immediate action after harvesting to maintain their freshness. So, as soon as the fish is harvested, rotting starts. Fresh fish rotting is a very complicated process that is brought on by microorganisms and a variety of physico-chemical processes, some of which are connected and may have an impact on one another. The biochemical breakdown of NPN compounds and proteins and microbial spoilage are two of the most significant degradation processes. As a result, many metabolites, including trimethylamine (TMA) and hypoxanthine (Hx), are produced. Pineiroa, C.; Barros-Velazquez, B.; Aubourg, S.P. (2004).

Ice allows for quick freezing and maintains the fish's shiny, appealing look. Ice prevents fish from partially freezing and drying out, which may happen when mechanical refrigeration is used. Fish may be kept on ice at a temperature that is just a little bit above freezing. Sea fish have a freezing point that is somewhat lower than that of pure water because the ice/fish combination often includes some salt and blood. Ice has to be able to melt in order to function as a cooling mechanism. The ice chills the fish as it is melting, which is how it truly works. The typical fish to ice ratio in real life is around 2:1, meaning that 10 kilogramme of fish will be held in 5 kg of ice. This much ice will be sufficient to cool the fish and then keep it frozen for a respectable length of time.

Cooling fish with chilled sea water is one option (RSW). As a result, the cooling operations for the fish may go more quickly. Additionally, the temperature of the fish may be lowered to between -1 and -2 degrees Celsius, which may have benefits in terms of lowering spoiling rates. Adding partial freezing to super-chilling is another option for the fish. Fish may be partly frozen by lowering the temperature to between -2°C and -4°C. Gibbard, G.; Lee, F.; Gibbard, S.; Bilinski, E. (1981), Hedges, N. (2000). RSW is mostly restricted to capturing boats. Mechanical refrigeration is used to mechanically chill saltwater to below 0°C. Sometimes, brine with a salt concentration of 3.3% of seawater is employed. Fast cooling, less storage pressure on soft fish like tuna, and the simplicity of managing big numbers of fish, like purse seiners, are all benefits of RSW. RSW has the drawback of causing fish to consume excessive amounts of salt and water, which results in protein loss and increased rancidity. Gibbard, G.; Lee, F.; Gibbard, S.; Bilinski, E. (1981), Hedges, N. (2000), Harvie, R. (1998).

An ice-water suspension that has been cooled to a subzero temperature makes up an ice slurry, which is a combination of flake or broken ice and saltwater. The temperature of the slurry will be roughly -1.5°C due to the salt, however additional salt may bring it down even lower. (Note: A freshwater and ice slurry should be precisely 0°C.) Ice slurries are used on fishing boats to quickly freeze high-value fish, and they are also utilised in processing facilities to cool goods as needed at any stage of the process, such as before packaging for chilled distribution. Since the whole surface of the fish is in touch with the cold liquid, it is a great way to quickly freeze fish. Even enormous fish may be chilled to 0°C in slurry in just four hours, according to experimental studies. Slurry has to have a uniform distribution of ice and water throughout to be effective. As a general rule, 1 kilogramme of ice is needed for every kg of saltwater. In actuality, this entails constantly shaking the tank and adding two buckets of ice to one bucket of water. Pineiroa, C.; Barros-Velazquez, B.; Aubourg, S.P. (2004), WANG, M.J.; Goldstein, V. (2003) Harvie, R. (1998).

The following advantages of using an ice slurry over traditional cooling are shown by several research and applications: Fish skin bruising and body damage are avoided, fish temperature is effectively controlled at the most desirable level, productivity is increased as a result of the simple handling and transportation of pumpable ice slurry, brine drainage is an option to provide almost salt-free ice for longer fish storage, and ice contamination is eliminated because ice is produced, stored, and distributed in a sea. WANG, M.J.; Goldstein, V. (2003)

Slurry ice has two key characteristics: I a faster chilling rate than flake-ice and RSW due to its higher heat-exchange capacity; and (ii) less physical damage to aquatic food products due to its spherical microscopic particles than flake-ice. This benefit is particularly significant in the case of soft tissues, which are present in a variety of aquatic food products. The fish's surface is completely covered by the slurry-ice combination, shielding it from oxygen's effects and reducing the likelihood of oxidation and dehydration events. . Pineiroa, C.; Barros-Velazquez, B.; Aubourg, S.P. (2004)

2.1.20 Transport of Refrigerated Goods

Transporting chilled products from one permanent storage facility to another must be considered as a whole process when it comes to refrigeration. The actual transportation of the products in a road vehicle, intermodal freight container, rail waggon, ship, or aeroplane is simply one element of the "chain" of events that make up the operation. The best transport equipment cannot make up for insufficient product cooling, improper packing and stowage, or poor handling during loading. Temperature control throughout the chain is crucial for success. The phrase "refrigerated transport" may be deceptive in and of itself since it should more often be "temperature-controlled transport." Heap, R.D. (2000)

For equipment users who may not understand that a wrong temperature setting on transport equipment may result in foods being heated, whereas in many static stores it would only lead to lack of refrigeration, it is important to understand the difference between "refrigeration" and "temperature control." Transport equipment is often designed to retain temperature rather than to cool. Foods can be chilled to some amount while being transported, but this is a laborious and uneven way of cooling, so it shouldn't be relied upon. When feasible, pre-cooled food should be loaded in a temperature-controlled environment. In certain circumstances, packaging designed for coolers with horizontal airflow may not be able to provide additional cooling during transit, when vertical airflow is typical. Heap, R.D. (2000)

The demands for transportation and the variety of transport refrigeration equipment are both extensive. It might be as simple as an insulated box filled with water ice. It may be an intermodal freight container with integrated refrigeration equipment at its most complicated. With ambient temperatures ranging from -20°C to +50°C, this equipment can keep products chilled or frozen at any desired temperature between -25°C and +30°C. The majority of the time, it will be a road vehicle intended for either short-distance, long-distance, or bulk distribution. For the long-distance transportation of fresh and chilled seafood, intermodal freight containers (also known as "ISO" containers) with inherent refrigeration equipment are often utilised. Heap, R.D. (2000)

It is more challenging to meet the chilled food's temperature control needs than it is to meet the frozen food's requirements. Cook-chill items often need to be kept between 0°C and 5°C, and for many products, tighter tolerances are needed. In contrast, frozen foods typically have a maximum limit temperature, perhaps of -18°C, but no lower limit. Relatively high rates of continuous air circulation and high levels of temperature control are required to provide temperature homogeneity in a load of chilled commodities, and careful stowage inside the truck may be required to accomplish this. Heap, R.D. (2000)

2.1.21 FREEZING

Depending on the species, fish are typically 60 to 90 percent water, and the freezing process turns the majority of this water into ice. Fish whose heat is withdrawn experience a temperature drop in the way seen in Figure 4 because freezing necessitates the removal of heat. The temperature drops to just below 0°C, or the freezing point of water, very quickly during the initial phase of cooling. The temperature in the second stage, known as the "period of thermal arrest," varies by a few degrees since more heat must be taken in order to convert the majority of the water to ice. The third stage, during which the majority of the remaining water freezes, starts after around 55% of the water has converted to ice and the temperature is once again dropping quickly. This third step requires that just a very modest quantity of heat be eliminated. Johnston, W.A.: Nicholson, F.J.; Roger. A.; Stroud, G.D. (1994) Fellows, P. (2000) Ranken, M.D.; Kill, R.C.; Baker, C. (1997), Hedges, N. (2000) Gormley, T.R. (1999)

Fish quality may be preserved via freezing, a practise that has been around for a while. Early in the 20th century, Clarence Birdseye made the discovery that meat and seafood frozen during the harsh northern winter had a superior flavour than food frozen during the warmer spring and fall. This finding inspired him to create and improve what became known as "the fast freeze machine." Hedges, N. (2002), Gormley, T.R. (1999).

While fast freezing is still a viable and maybe the best method for keeping fish safe and naturally preserved for many months or even years, there is no generally agreed-upon definition of the technique. An early definition of quick freezing suggested that all fish be frozen from a temperature of 0°C to -5°C in two hours or less. The fish were then further frozen until their average temperature at the end of the freezing process was equivalent to the advised storage temperature of - 30°C. The latter criteria is specified by the standard freezing procedure as the fish's hottest section being cooled to -20°C at the end of freezing. When this temperature is attained, the fish's coldest sections will be at or close to the refrigerant temperature, which is around -

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35°C, and the average temperature will then be close to -30°C. This definition of rapid freezing is rather detailed, and it is possibly more stringent than is required to guarantee a high-quality end result. Johnston, W.A.: Nicholson, F.J.; Roger. A.; Stroud, G.D. (1994) Fellows, P. (2000), Hedges, N. (2000). Chevalier, D.; Siqueira-Munoz, A.; Le Bail, A.; Simpson, B.K.; Ghoul, M. (2001) Archer, D.L. (2004)

The definitions of rapid freezing that are more often employed simply stipulate that the fish should be frozen quickly and lowered in the freezer to the required storage temperature without specifying a freezing period or even a freezing rate. All reputable norms of practise for rapid freezing should contain the advice that the fish should be lowered to the specified storage temperature. These two fundamental requirements for freezing—quickly freezing the fish and lowering it to storage temperature—go hand in hand because it's likely that a freezer that can quickly freeze fish also operates at a low enough temperature to ensure that the recommended product storage temperature can be reached. Johnston, W.A.: Nicholson, F.J.; Roger. A.; Stroud, G.D. (1994)., Ranken, M.D.; Kill, R.C.; Baker, C. (1997,Fellows, P. (2000

In fish, freezing and freezing techniques have a significant impact on how the water interacts with the fish, and it is generally agreed that quick freezing (1 °C/min) delivers the greatest quality since it results in tiny, uniformly dispersed ice crystals. Large, harmful ice crystals form as a result of slow freezing (5°C/h). Gormley, T.R. (1999), Nielsen, J. and Jessen, K. (1997).

Producers of frozen fish and frozen fish products have the difficulty of using the natural preservation capabilities of the freezing process to provide goods of consistently excellent quality from raw materials, the majority of which are of a wild origin. Making greater use of fish that are now underutilised for human consumption and that are also from sustainable sources is another major problem due to the increasing strain on the supplies of conventionally processed fish. Hedges, N. (2002) Chevalier, D.; Siqueira-Munoz, A.; Le Bail, A.; Simpson, B.K.; Ghoul, M. (2001).

Simply said, the freezing process turns the water present in the fish into ice. Depending on the species or fat content, fish are 60-80% water (high fat fish such as eel and salmon have lower water content). When the temperature drops below -1.5°C, water in the flesh starts to freeze; by the time it reaches -5°C, 75% of the water has already solidified. At conventional storage temperatures of -25°C, there is still a tiny quantity of water that is unfrozen within the fish cells. As the temperature drops lower, more and more of the water becomes frozen. The crucial zone is defined as the temperature range between -1.5 and -5°C since this is where the majority of freezing occurs and where the majority of harm from the freezing process may happen. In order to reduce damage from freezing, processors must attempt to pass through the crucial zone within 2-4 hours. Johnston, W.A.: Nicholson, F.J.; Roger. A.; Stroud, G.D. (1994)

2.2 THEORETICAL FRAMEWORK

A. Model for Perceived Quality and Customer Satisfaction on Brand Loyalty

The present study suggests the perceived quality and customer satisfaction on brand loyalty model and the relationship among them is as explained in Figure 2.1.

Independent Variables   *Dependent Variable*

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┌─────────────────────────┐
│   Perceived Quality     │────────┐
└─────────────────────────┘        │        ┌─────────────────────────┐
                                   └───────▶│      Brand Loyalty      │
┌─────────────────────────┐        ┌───────┘└─────────────────────────┘
│  Customer Satisfaction  │────────┘
└─────────────────────────┘
```
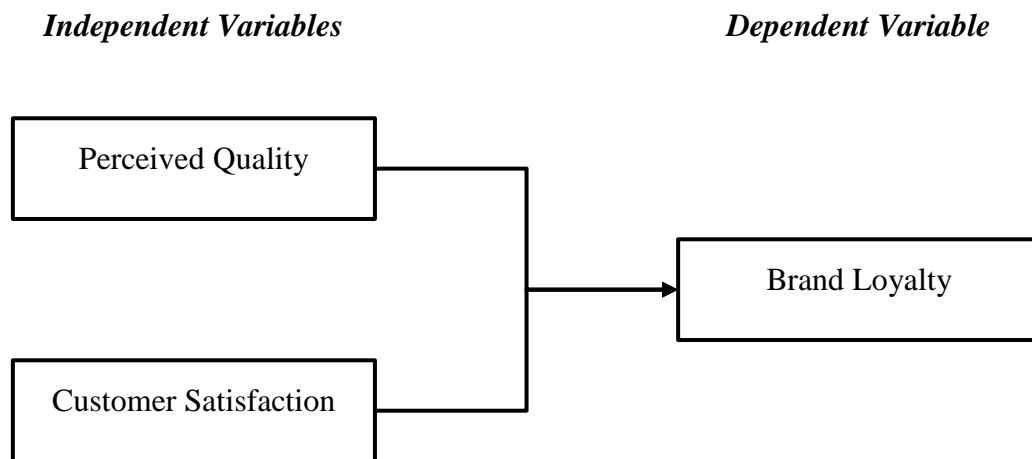
(Source: Developed for the study)

Figure 2.1: Hypothesized Perceived Quality and Customer Satisfaction on Brand Loyalty Model

B. Hypotheses of the Study

There is a significant relationship between Brand Loyalty and Perceived Quality.

There is a significant relationship between Brand Loyalty and Customer Satisfaction

There is a significant difference in Brand Loyalty across gender of Customers

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Naipunnya Business School, Pongam

CHAPTER 3

RESEARCH METHEDOLOGY

RESEARCH METHEDOLOGY

3.1 INTRODUCTION

This chapter is mainly looking to the research methodology that was implemented in this study. It provided an in depth description of research approach adopted in this study. Research design, population of the study, sampling, sample size, instruments used for the study, sources of knowledge collection, software used for the analysis were presented within the subsequent sections Research is defined as a careful consideration of the study on a particular concern or a problem with the help of scientific methods. Consistent with the American sociologist Earl Robert Babble, 'Research may be a systematic inquiry to describe, explain, predict and control the observed phenomenon'. Research includes two methods they're inductive method and deductive method. Inductive research methods are used for analyzing the observed phenomenon whereas; deductive methods are used for verifying the observed phenomenon. Inductive approaches are related with the qualitative research and deductive methods are more commonly connected with quantitative research. Research means look for knowledge.

Research methodology aims at discovering the reality. It's an essential and powerful tool for which helps in making progress. Research methodology undertaken to get answers to questions is by applying some scientific methods. Research is carried on both for locating new facts and verification of old ones. Research methodology is carried on for identifying hidden things. consistent with Clifford woody, 'Research comprises of defining and redefining problems, formulating hypothesis, collecting, organizing and evaluating data, making deductions and research conclusions and eventually carefully testing conclusion to determine whether they fit the formulated hypothesis'. Research is just too systematic solving the research problems. It involves

all those methods and techniques that are adopted for the gathering and analysis of interpretation of data to solve the problem. This includes research designing, sort of data collected, method used for collecting and analysis the info, statistical tool etc. Research in technical sense is a tutorial activity. Clifford woody (Kothari 1988) defined research as 'an activity that defining and redefine problems, formulating a hypothesis; collecting and evaluating data; making deductions and reaching conclusions; and punctiliously testing the conclusions for understanding if they support the formulated hypothesis'.

Research may be a way to preparing the mind to look at things in a different way. Out of such an orientation would come new and innovative observation about everyday events and happenings? Research may be a common parlance refers to the search for knowledge. It is often also defined as a scientific and systematic search for relevant information on specific topics. In fact, searching is an art of scientific investigation. In simple terms, research means a cautionary investigation or inquiry especially through the look for new facts on any branch of knowledge.

3.2 RESEARCH DESIGN

The conceptual framework in which research is carried out is known as research design. It serves as a plan for data gathering, measurement, and analysis. The study method is defined by the research design. After the formulation of the research problem, the research design is created. Descriptive research is the method used in this study. Descriptive research is a sort of fact-gathering research. It is commonly utilised in research in the physical, natural, and social sciences. The primary goal of descriptive research is to provide a description of the current situation. For the purpose of study, descriptive research was used. Descriptive research helps the researcher to portray the characteristics of a particular individual, situation or a group accurately

3.3 POPULATION

Population refers to the total number of people that are the subjects/respondents of the study. The population here is the consumers who are using various applications to get online delivery of fresh fish, seafood and meat in food category.

3.4 SAMPLING

Sampling is the process of selecting a sample from the entire population. Convenience sampling was used to select the sample. In this project the researcher selected convenience sampling because the population is large. Sample Design is a method of collecting data in which information is collected from a small portion of the total population. The researcher is trying to get 150 samples.

3.4.1 CONVENIENCE SAMPLING

Convenience sampling is a sampling method that uses participants who are most conveniently available. This sort of sample is usually biased. It most likely does not fit the correct definition of random sample, where everyone in the population has an equal chance of being selected. Since it does not truly represent the population, it is limited when it comes to generalization. Valid inferences about the large groups cannot be made based on the results drawn from the convenience samples. Convenience sampling is a non-probability method, which may be appropriate when a researcher wants to get a gross approximation of the truth, while avoiding the time and cost of a random sample.

The scaling used for the study is 'Five Point Likert scale'. Scaling is the branch of measurement that involves the construction of an instrument that associates qualitative constructs with quantitative metric units. A Likert scale is a scale used to represent people's attitudes to a topic. It is the most widely used approach to scaling responses in survey research. The Likert Scale is used to allow the individual to

express how much they are satisfied or dissatisfied with a particular statement. The format of a typical five-point Likert scale, for example, could be:

● Strongly Agree

● Agree

● Neither agree nor disagree / Neutral

● Disagree

● Strongly Disagree

3.5 SAMPLE SIZE

To conduct an empirical study, the researcher is trying to collect responses through questionnaire from 198. This small group represents the total population. As it is impossible to approach all respondents, a Sample was selected which represents the whole population. The sample was taken from across Kerala from 14 districts.

3.6 DATA COLLECTION

The task of data collection begins after a research problem has been defined and research design is chalked out. While deciding about the method of data collection to be used for study, the researcher should keep two types of data they are :

A) Primary data

B) Secondary data

Primary data

Primary data are those data which are collected for the first time. Primary data can be obtained either through observation or through direct communication. In this sample, A sample survey was used for collecting the primary data. The primary data is collected by using a questionnaire method.

Secondary Data

Secondary data means the data that have already been collected by someone and which have already been passed through the statistical processes. In this project work the researcher has taken textbook, journals, magazines, websites as the sources of Secondary data**.** Selection of elements based on ease of access is known as convenience sampling method. The survey questionnaire will be sent across to the customers and prospective customers via online platform, directly visiting the hubs and shops where the products are sold.

3.7 DATA COLLECTION TOOL

The tool used for data collection is through questionnaires using Likert scale, which is termed as a summated instrument scale. It consists of a number of statements which express whether a positive or negative attitude towards the object of interest. The respondents are asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitude, and the scores are totalled to measure the respondent's attitude.

3.8 STATISTICAL TREATMENT

Statistical treatment means the tool or technique that is used for analysing and interpreting the data. Through this researcher can do an easy study on data collected by him and make the interpretation. The statistical treatment used for the interpretation are: Percentage analysis Percentage analysis is the method to represent raw streams of data as a percentage (a part in 100 – percentage) for better understanding of collected data. Percentage analysis is applied to create a contingency table from the frequency distribution and represent the collected data for better understanding.

3.9 SOFTWARE USED FOR THE STUDY

MS Excel and SPSS were utilised in this project's study project to analyse the data and draw findings. MS Office A spreadsheet software called Microsoft Excel is accessible on Windows, Mac OS X, and iOS devices. It has calculators, graphing tools, pivot tables, and the macro programming language Visual Basic for Applications. For these systems, it has evolved as the industry standard for spreadsheets, particularly after version 5 in 1993, when it replaced Lotus 1-2-3 as the de facto standard. The Microsoft Office suite includes Excel. The IBM SPSS Statistics 26 software programme was used to perform correlations and anova in order to test the model and the assumptions.

3.10 TOOLS AND TECHNIQUES

The statistical tools used while conducting this research are Correlation, one way Anova

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PERIOD OF STUDY

The period of the study for the researcher was from 2022 July 14 to 2022 Sept 08.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

Analysis of data is a process of inspection, cleansing, transforming, and modelling data with the goal of discovering useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under variety of names in different business, science, and social science domains

Data analysis is engaged after all data has been collected and is a process used to analyse the collected data. The type of data analysis the tool that was used depended on the type of data. Before processing the responses, the completed questionnaire was edited for completeness and consistency. The data was then coded to enable the descriptive analysis including percentage analysis.

From the developed questionnaire, the independent variable of the study is entitled online delivery of fresh fish, meat and seafood on the consumer behaviour. The researcher used Microsoft excel, SPSS software package to analyse all these analysis. The result of the analysis is given in the tables and graphs followed by interpretation.

4.2 METHOD

A. Participants and Procedure

There were 198 useful responses collected through an online questionnaire sent to the customers of online delivery of fresh fish, seafood and meat. Out of these 198 respondents 53% were male, 46 were female, 82.66% were below the age of 35 and 89.33% were having graduation or above qualification. Majority of the respondents were from Ernakulam and Thrissur District. 72 % of the respondents live in panchayath. Freshtohome, Licious are the most recommended brands. Most of the

respondents came to know about the brand they use from social media. Fish and Poltry are the most commonly used products.

B. Measurement Instruments

1) *Brand Loyalty:* Five-item scale was designed for the present study to measure brand loyalty. Participant's brand loyalty was assessed through these items (such as regularly buying the same brand, brand as first choice, will not switch to other brands, recommend the brand to others, loyal to the brand that they use). Participants indicated their responses on a five-point Likert scale with (1) as strongly disagree to (5) as strongly agree. The value of Cronbach's Alpha is greater than 0.7 and is positive, which shows the reliability of the dependent variable - brand loyalty.

2) *Perceived Quality: Five-*item scale was formed for this study to measure the perceived quality. Participant's perception towards the quality of fresh fish, seafood and meat in food product category, the use was evaluated through items such as excellent quality, superior quality compared to competitors, reliability, packaging quality and uses quality ingredients. Participants indicated their responses on a five-point Likert scale with (1) as strongly disagree to (5) as strongly agree. Cronbach's Alpha was found to be greater than 0.7 and also positive, which shows the reliability of independent variable - perceived quality.

3) *Customer Satisfaction:* Four-item scale was designed for this study to measure the level of customer satisfaction. The perception of participants towards the satisfaction of the online delivery of fresh fish, seafood and meat in food product category/ brand they use was measured using items such as satisfaction with this online delivery of fresh fish, seafood and meat in food product category, the decision to purchase this online delivery of fresh fish, seafood and meat in food product category was a wise one, feels good about the buying decision of this online delivery of fresh fish, seafood

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and meat in food product category brand, pleased with the purchase of this online delivery of fresh fish, seafood and meat in food product category brand.. Participants indicated their responses on a five-point Likert scale with (1) as strongly disagree to (5) as strongly agree. Cronbach's Alpha value is above 0.7 and positive too, hence conforming to the reliability of independent variable - customer satisfaction.
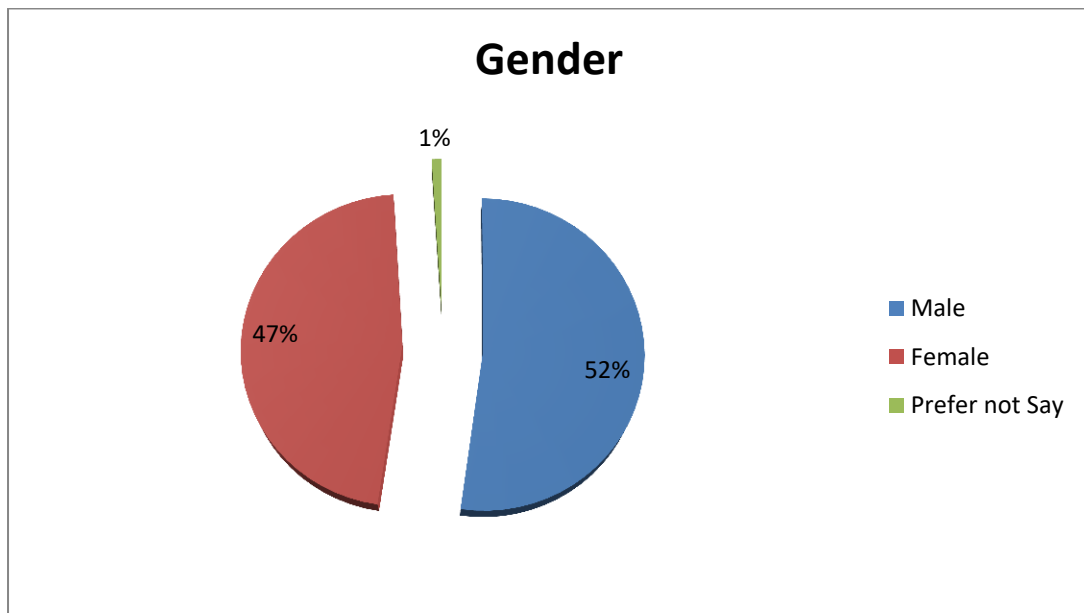
4.5 DATA ANALYSIS AND RESULTS

Percentage Analysis

Table 4.2.1 Showing Frequency distribution based on gender analysis

Gender of the respondents	Frequency	Percentage
Male	103	52 %
Female	92	47%
Prefer not to say	2	1 %
Total	198	100 %

Figure 4.2.1 Showing Frequency distribution based on gender analysis

Interpretation

The researcher received responses from both men and women 52 % 47% respectively. So from this response from the respondents the researcher came to conclude that both genders have got almost equal participation in the questionnaire survey. To test whether there is any difference in brand loyalty between male and female will be discussed later

Table 4.2.2 Showing Age of the Respondents

Age of the respondents	Frequency	Percentage
Below 25	98	50 %
26-30	36	18%
31-35	32	16 %
36-40	8	4%
41 Above	23	12 %
Total	198	100 %

Figure 4.2.2 Showing Age of the Respondents

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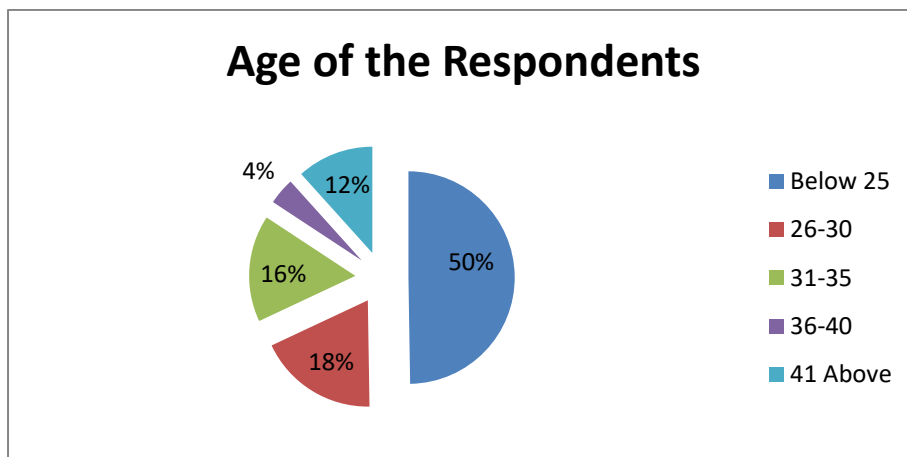
Interpretation

From the collected 198 useful responses through an online questionnaire sent to the customers of online delivery of fresh fish, seafood and meat, 50% were below age 25, 18% were 26-30,16% were 31-35, 12% were 36-40 and 12% were 41 and above. Generation Z is the major respondents of this survey. But Millennials are also doing their contribution.

Table 4.2.3 Showing Educational Qualification of the Respondents

Educational Qualification of the respondents	Frequency	Percentage
10th or below	2	1 %
Plus 2	6	3 %
Bachelor's Degree	66	34 %
Master's Degree or higher	123	62 %
Total	198	100 %

Figure 4.2.3 Showing Educational Qualification of the Respondents

Educational Qualification of the respondents

- 1%
- 3%
- 34%
- 62%

Legend:
- ■ 10th or below
- ■ Plus 2
- ■ Bachelor's Degree
- ■ Master's Degree or higher
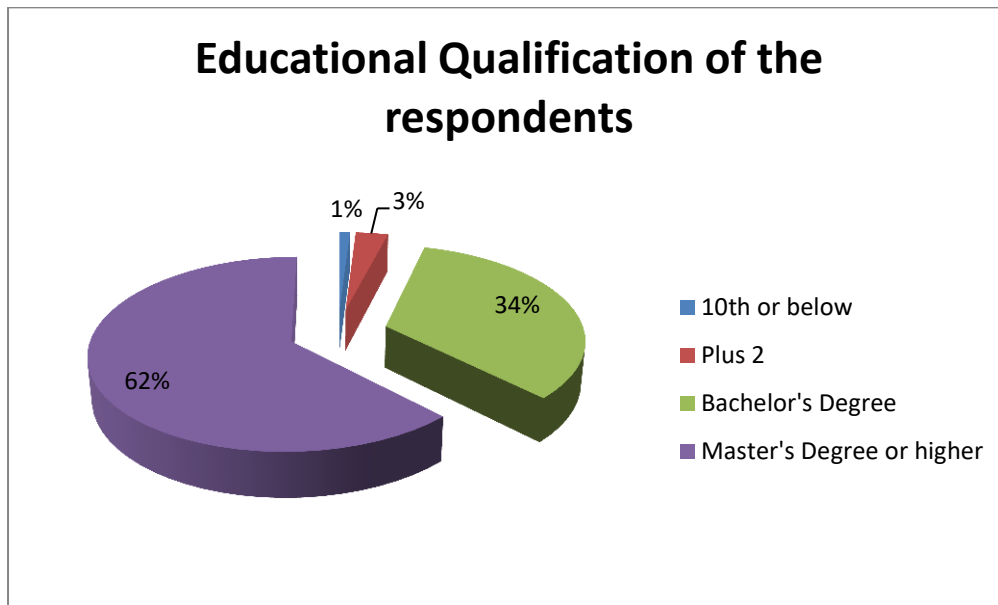
Interpretation

From the above data majority of the respondents is i.e.,62 %   having a Master's degree or higher and 34 % is having a Bachelor's Degree. The rest contributes to other categories. From this the researcher concludes that most of the respondents who are using online delivery apps are having minimum Bachelor's degree. The researcher is again going to test whether there is any difference in brand loyalty based on the customer's educational qualification.

Table 4.2.4 Showing Annual Income of the Respondents

Annual Income of the respondents	Frequency	Percentage
within 2.5 lakhs	98	49 %

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2.5 lakhs- 3 lakhs	45	23 %
3 lakhs -5 lakhs	30	15 %
5 lakhs -7.5 lakhs	10	5 %
7.5 lakhs and above	14	8 %
Total	198	100 %

Figure 4.2.4 Showing Annual Income of the Respondents
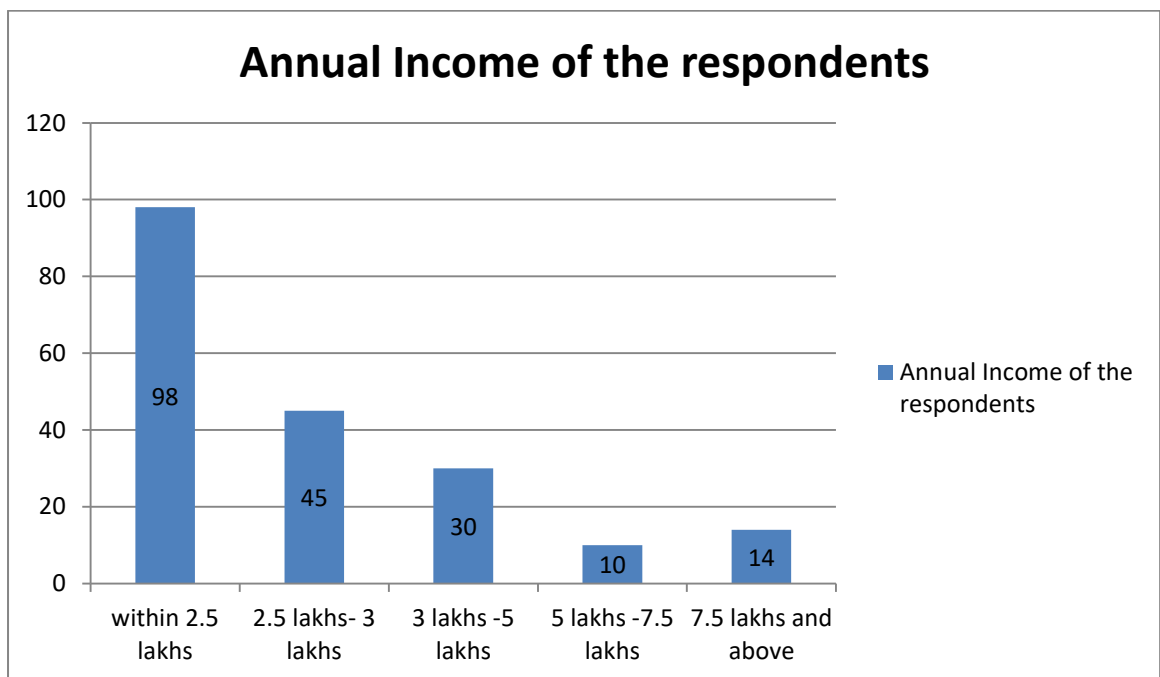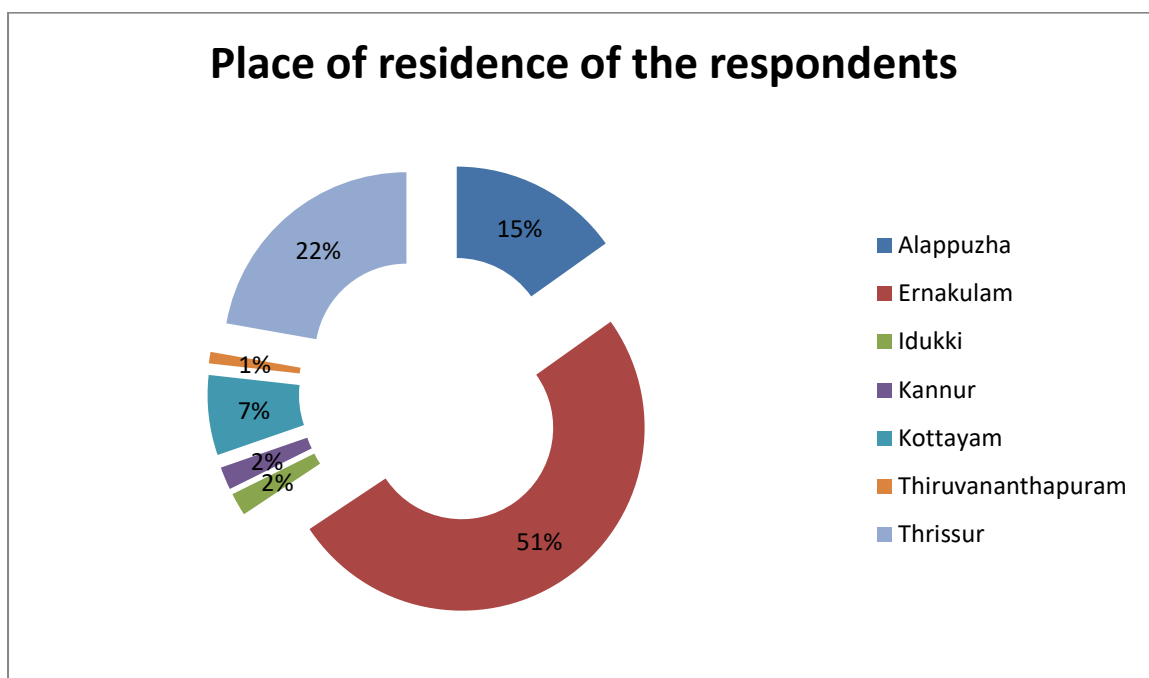

Interpretation

Figure 4.2.4 indicates annual income of the respondents. Indian government put forward a tax slab for the citizens of India. The researcher took the same slab for his research study. Most of the respondents i.e., 49% fall in between the annual income of within 2.5 lakhs i.e., 98 respondents are having an annual income below the basic tax limit. Among the respondents 23% is having an annual income of 2.5 lakhs- 3 lakhs, 15 % respondents are having 3 lakhs -5 lakhs annual income, 5 % is having an annual

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income of 5 lakhs -7.5 lakhs and 8 % is having 7.5 lakhs and above. The researcher came to conclude that most of the respondents are fall between annual incomes below 2.5 lakhs.

Table 4.2.5 Showing respondents Place of residence

Place of residence of the respondents	Frequency	Percentage
Alappuzha	30	15 %
Ernakulam	100	51 %
Idukki	4	2 %
Kannur	4	2 %
Kottayam	14	7 %
Thiruvananthapuram	2	1%
Thrissur	44	22 %
Total	**198**	**100 %**

Figure 4.2.5 Place of residence of the Respondents

Interpretation

The researcher received responses mostly from Ernakulam district which is 51 % of the total response. 22 % of the respondents were from Thrissur, 15 % from Alappuzha. The rest of the respondents are from other districts of Kerala. The metro city of Kerala i.e., Ernakulam is having highest number of responses. Then comes Alappuzha and Thrissur. Companies can come with more marketing strategies to create more customers from other parts of Kerala and the existing ones more loyal to the company by providing better customer experience,

Table 4.2.6 Showing respondents home location

Where is your home located?	Frequency	Percentage
Panchayath	134	49 %
Corporation	30	23 %

Municipality	34	15 %
Total	198	100 %

Figure 4.2.6 Showing respondents home location
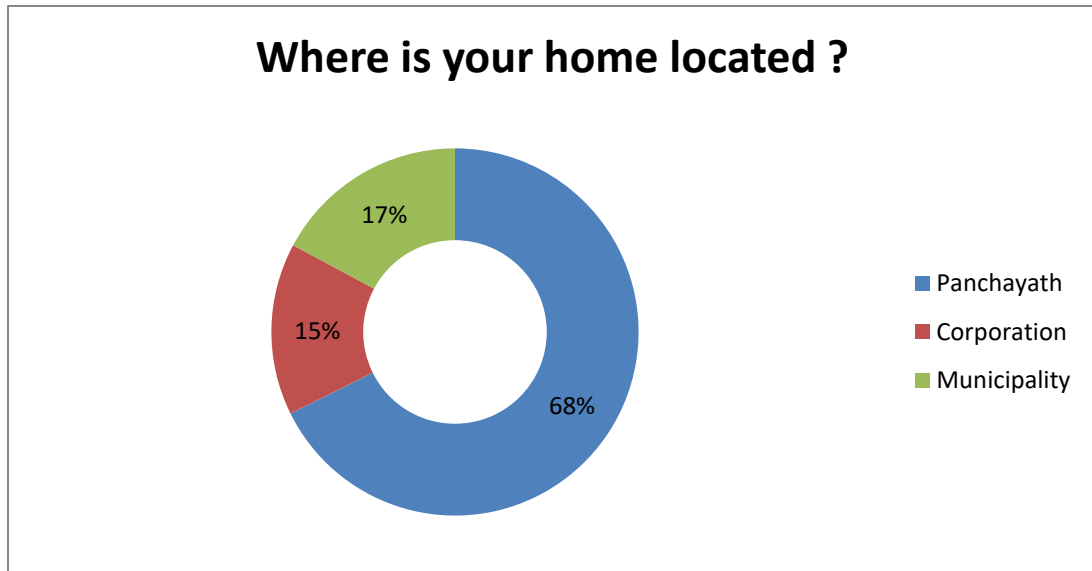
Interpretation

Most of the respondents reside in Panchayaths i.e., 68%, but at the same time 17% and 15% of the respondents in Municipality and Corporation respectively. Companies can come with more marketing strategies to create more customers from other parts of Kerala and the existing ones more loyal to the company by providing better customer experience,

To the question When you think of online delivery of fresh fish, seafood and meat which all brands comes to your mind ? List any five, the responses were as follows

Table **4.2.7** *Top-of-the-mind Awareness of online consumers of fresh fish, seafood and meat brands/apps*

Table 4.2.7 *Top of the mind awareness*

First recalled brand	Frequency	Percentage
Freshtohome	130	65 %
Licious	34	17 %
BigBasket	20	10 %
Tendercuts	10	5 %
Others	4	3 %

Figure 4.2.7 *Showing Top of the mind awareness*
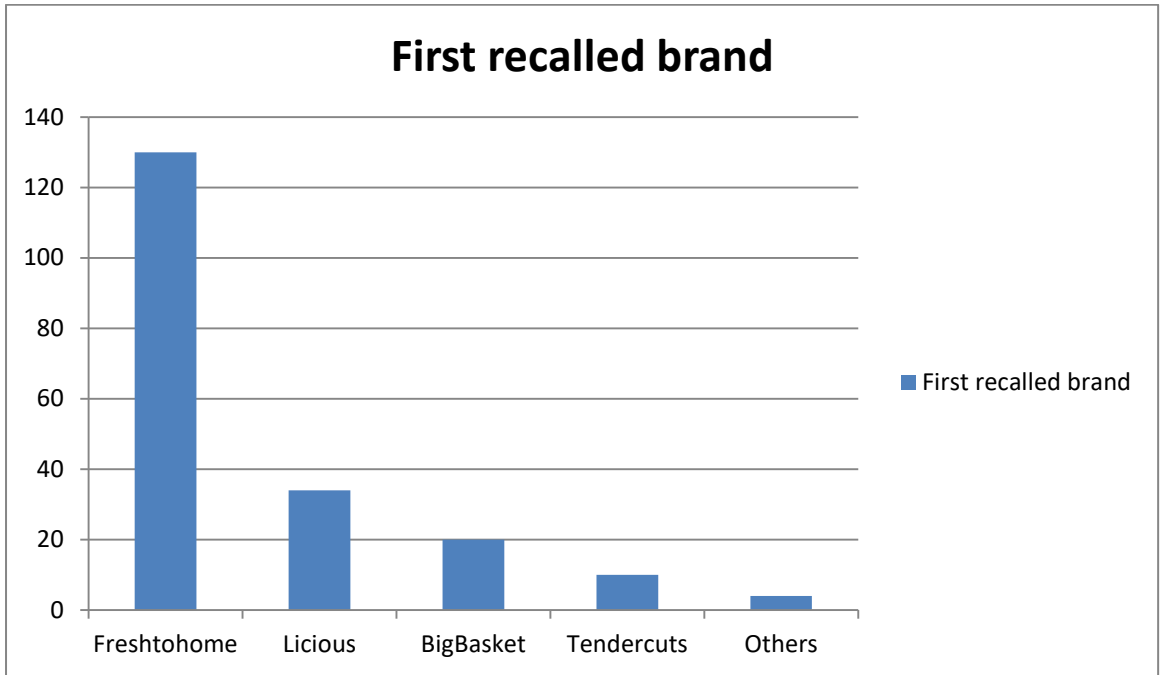
Interpretation

Table 4.2.7 shows the first recalled product brands of online consumers of fresh fish, seafood and meat by the respondents without any aid. It shows that Freshtohome, Licious, Bigbasket and Tendercuts are having the highest level of brand awareness among online delivery of fresh fish, seafood and meat product brands/apps. Out of which Freshtohome is having the top-of-the-mind awareness in the online consumers of fresh fish, seafood and meat product brands/apps category as it was the first recalled brand by most of the respondents.

Table 4.2.8: Showing Brand Recognition among online consumers of fresh fish, seafood and meat brands/apps

Online delivery of fresh fish, seafood and meat brands/apps	No.of respondents recognised	Percentage

Freshtohome	152	76.7
BigBasket	80	40
Licious	90	45
Fishmart	66	33.3
Tendercuts	30	15
Others	28	14

Figure **4.2.8:** *showing Brand Recognition among online consumers of fresh fish, seafood and meat brands/apps*
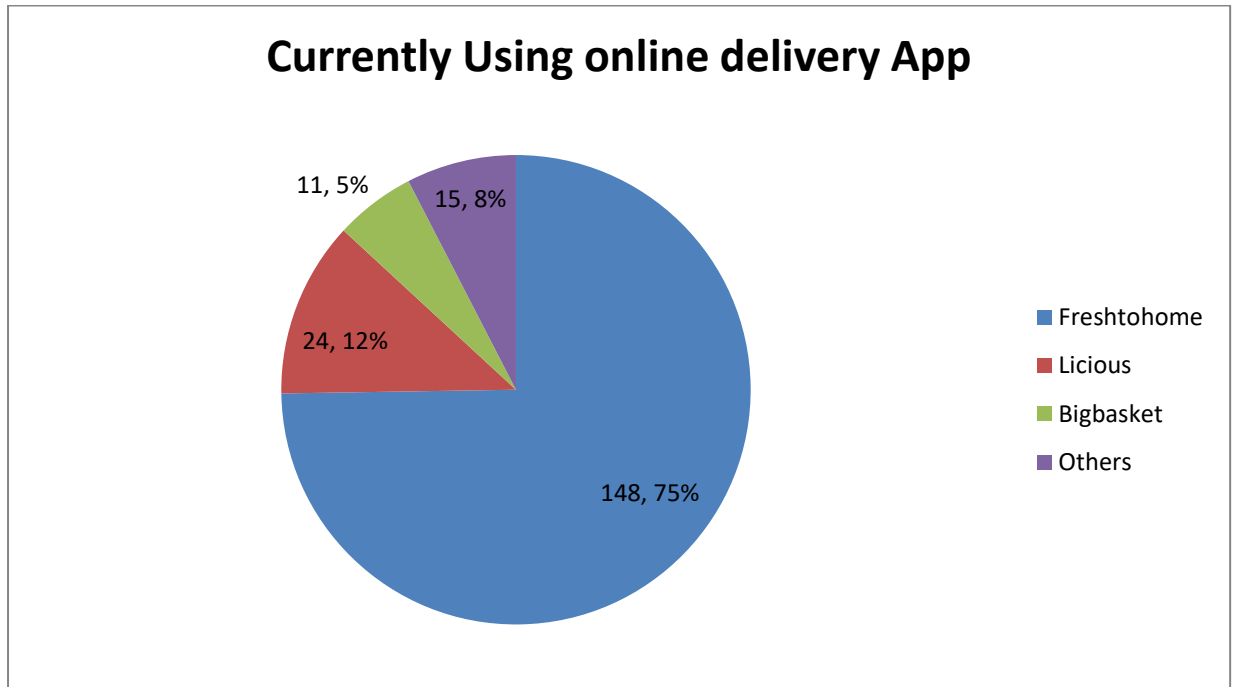

Interpretation

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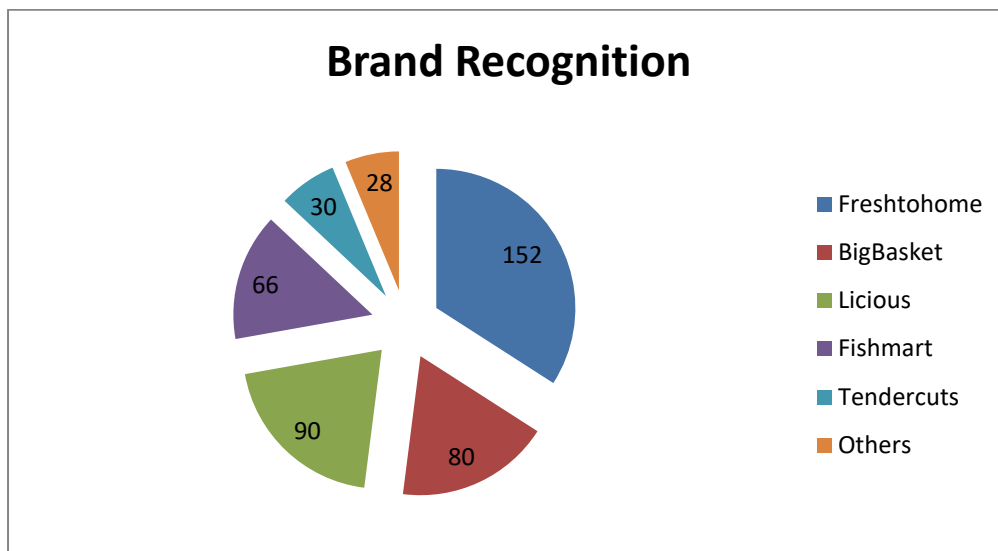
Table 4.2.8 provides the number of respondents who could recognise various online delivery fresh fish, seafood and meat product brands/apps. It shows that the majority of the respondents were able to confirm the prior exposure of brands such as Freshtohome, Licious, Bigbasket, Fishmart and Tendercuts.

Table 4.2.9: showing Currently Using **online delivery brands/apps**.

Currently using Online delivery of fresh fish, seafood and meat product brands/apps	No.of respondents recognised	Percentage
Freshtohome	148	75
Licious	24	20.00
Bigbasket	11	46.67
Others	15	15.33

Figure 4.2.9: showing Currently Using online delivery brands/apps.

Currently Using online delivery App

- Freshtohome
- Licious
- Bigbasket
- Others

11, 5%
15, 8%
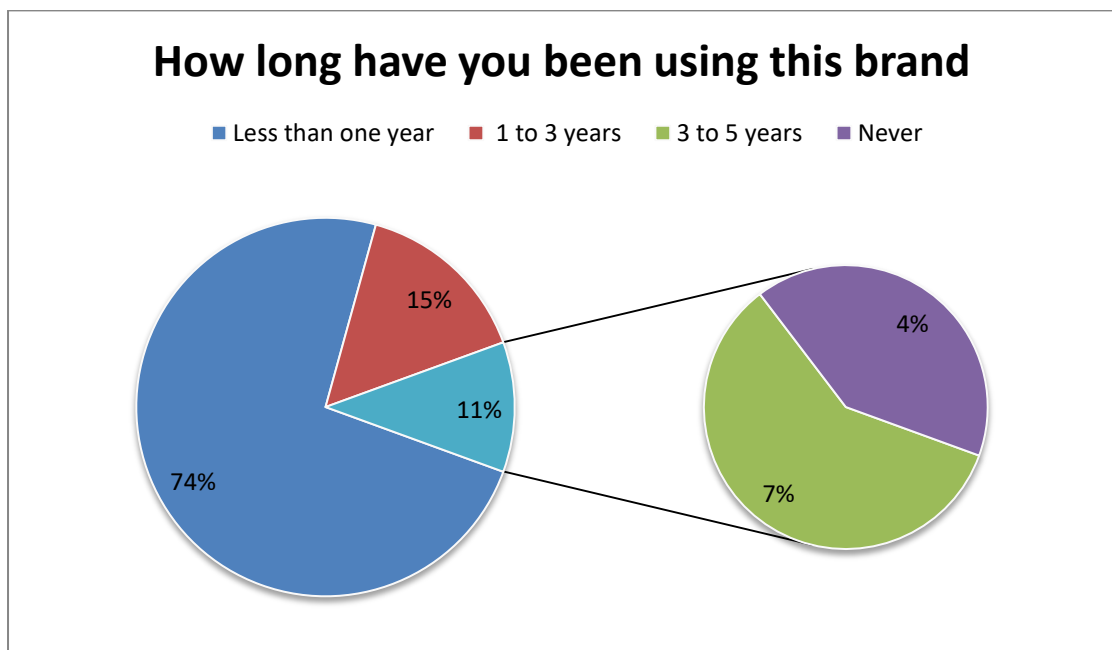24, 12%
148, 75%

Interpretation

The above table gives the online delivery of fresh fish, seafood and meat product brands/apps. that are currently used by the customers. It shows that the majority of the respondents use Freshtohome followed by Licious and Bigbasket.

Table 4.2.10. Showing duration of the usage

How long have you been using this brand?	Frequency	Percentage
Less than one year	146	74.3 %
1 to 3 years	30	14.9 %

3 to 5 years	13	5.9 %
Never	9	4.9 %
Total	198	100 %

*Figure 4.2.10. Showing duration of the usage*

Interpretation

Table gives the duration of usage of online consumers of fresh fish, seafood and meat product brands/apps that how long they are used by the customers. It shows that the majority of the respondents using their brand less than one year. But there are users who are more loyal to this brand i.e., they are using it between 3 to 5 years

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Table 4.2.11. Showing the frequency of purchase this brand

How often you typically purchase this brand?	Frequency	Percentage
weekly	41	21 %
once in every two weeks	28	14 %
monthly	42	21 %
every 2-6 months	30	15 %
every 7-12 months	9	5 %
less frequently than once a year	20	10 %
I've only purchased once before	22	11 %
I've never purchased before	6	3 %
Total	198	100 %

Figure 4.2.11. Showing the frequency of purchase this brand

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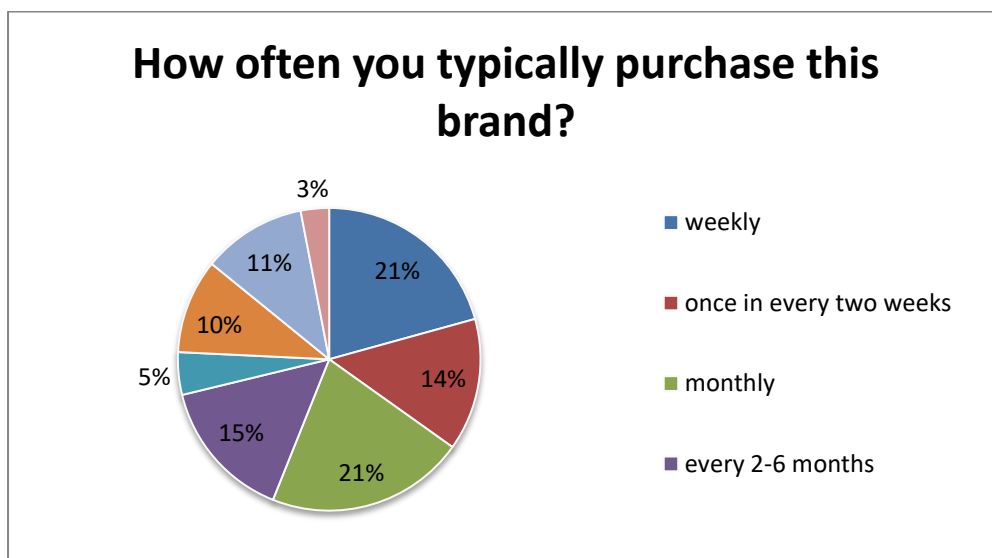
Interpretation

To the question 'how often you typically purchase this brand?' the researcher got the following results namely, 21% percentage of the respondents are buying both weekly and monthly, whereas once in every two weeks buyers constitute 14 %, every 2-6 months are of 15% percentage.

Table 4.2.12. Showing How did the respondents come to know about the brand

How did you come to know about this brand?	Frequency	Percentage
Friends & Relatives	90	44.6 %
Social Media	144	71.3 %
Television Advertisements	28	13.9 %
News Paper Ads	40	19.8 %
Magazine Ads	14	6.9 %
Webinar	2	1 %
Play Store	2	1 %
Other		3 %

Figure 4.2.12. Showing How did the respondents come to know about the brand
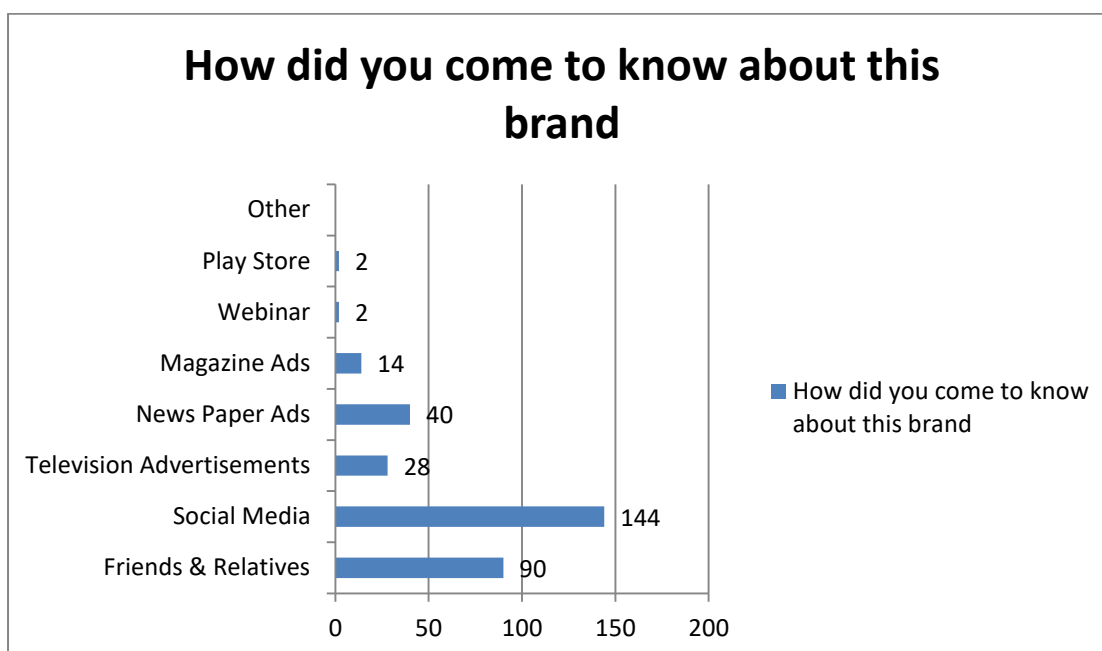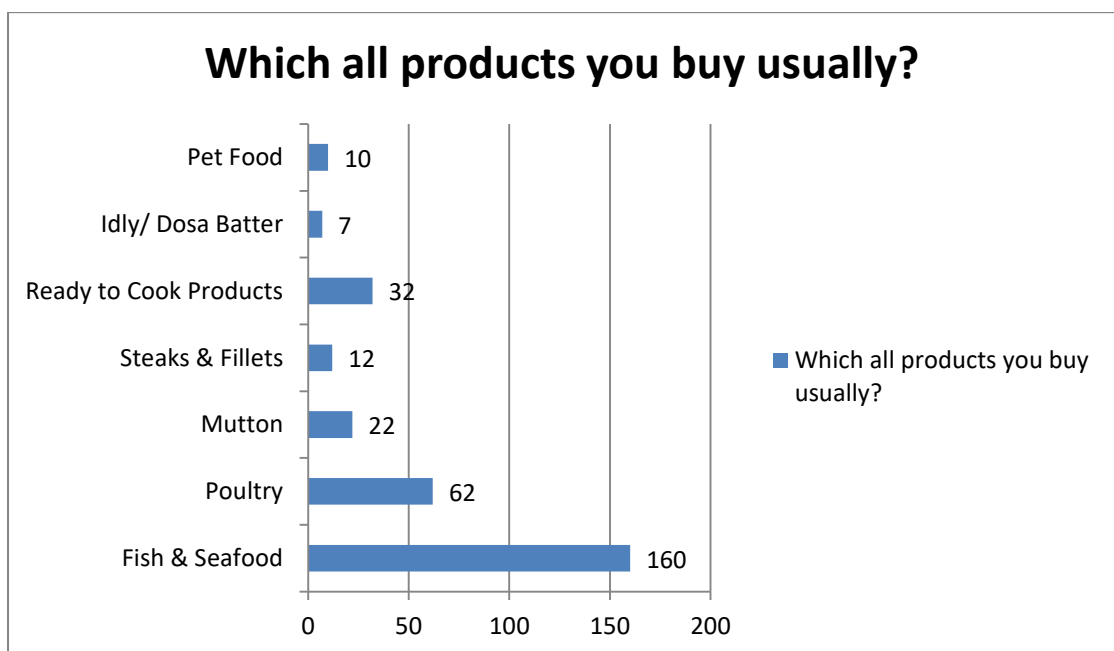
Interpretation

To the question 'How did you come to know about this brand?' the researcher got the following results namely, 44.6% percentage of the respondents came to know by friends and relatives,71.3 % came to know about the brand via social media, whereas Television Advertisements and Newspaper ads constitute 13.9 % and 19.8 % respectively.

Table 4.2.13. Showing all products respondents buy usually

Which all products you buy usually?	Frequency	Percentage
Fish & Seafood	160	79.2 %
Poultry	62	30.7 %
Mutton	22	10.9 %

Steaks & Fillets	12	5.9 %
Ready to Cook Products	32	15.8 %
Idly/ Dosa Batter	7	8 %
Pet Food	10	9 %

**Figure 4.2.13. showing all products you buy usually**

Interpretation

To the question 'Which all products you buy usually?' the researcher got the following results namely, 79.2 % percentage of the respondents buy fish and seafood, 30.7 % buy various poultry products, whereas Ready to Cook products constitute 15.8 %.

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Table 4.2.14. showing Factor mostly influencing in purchasing

What Factor was mostly influencing you in purchasing through online delivery	Frequency	Percentage
Ease to use	62	31 %
Speedy Delivery	44	22 %
Offers (Discounts/ Vouchers)	36	18 %
Other Customer Reviews	14	7 %
Variety in Foods	24	12 %
Busy Schedule	20	10 %
Total	198	100 %

Figure 4.2.14. Showing Factor mostly influencing you in purchasing

Interpretation

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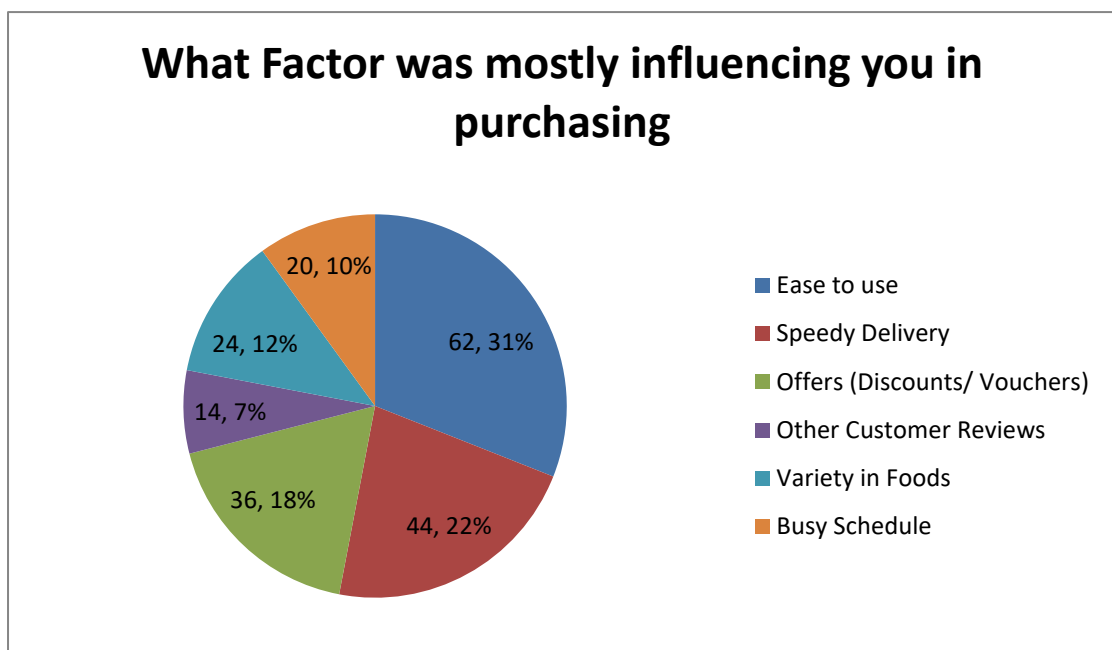
To the question 'What Factor was mostly influencing you in purchasing through online delivery?' the researcher got the following results namely, 44.6% percentage of the respondents came to know by friends and relatives,71.3 % came to know about the brand via social media, whereas Television Advertisements and Newspaper ads constitute 13.9 % and 19.8 % respectively.

Table 4.2.15 showing Consumer perception of freshness

While ordering via online, the product I get is fresh	Frequency	Percentage
Strongly Disagree	8	4 %
Disagree	8	4 %
Neutral	58	29 %
Agree	102	52 %
Strongly Agree	22	11 %
Total	198	100 %

Figure 4.2.15 showing Consumer perception of freshness

While ordering via online, the product I get is fresh

|	
8, 4%	Strongly Disagree
8, 4%	Disagree
22, 11%	Neutral
58, 29%	Agree
102, 52%	Strongly Agree
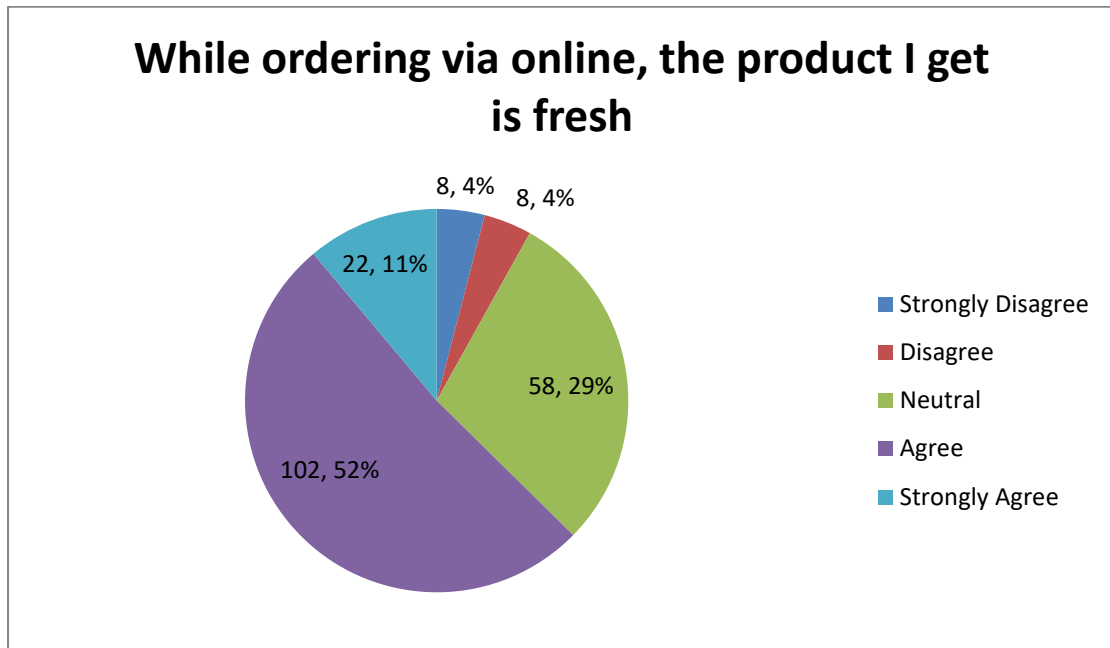
Interpretation

From the above table and figure to the question 'While ordering via online, the product I get is fresh' 52% of the respondents agree to it, 11% strongly agree 29 % is neutral. The respondents have a perception that the online delivery products are fresh. So companies should do the processing and packing along wish the cold supply chain strategies to keep that conception correct.

Table 4.2.16 showing Consumer perception about the products

While ordering via online, the product I get is free from antibiotic, and other chemicals	Frequency	Percentage
Strongly Disagree	10	5 %

Disagree	12	6 %
Neutral	94	46 %
Agree	82	40 %
Strongly Agree	6	3 %
Total	198	100 %

Figure 4.2.16 showing Consumer perception about the products
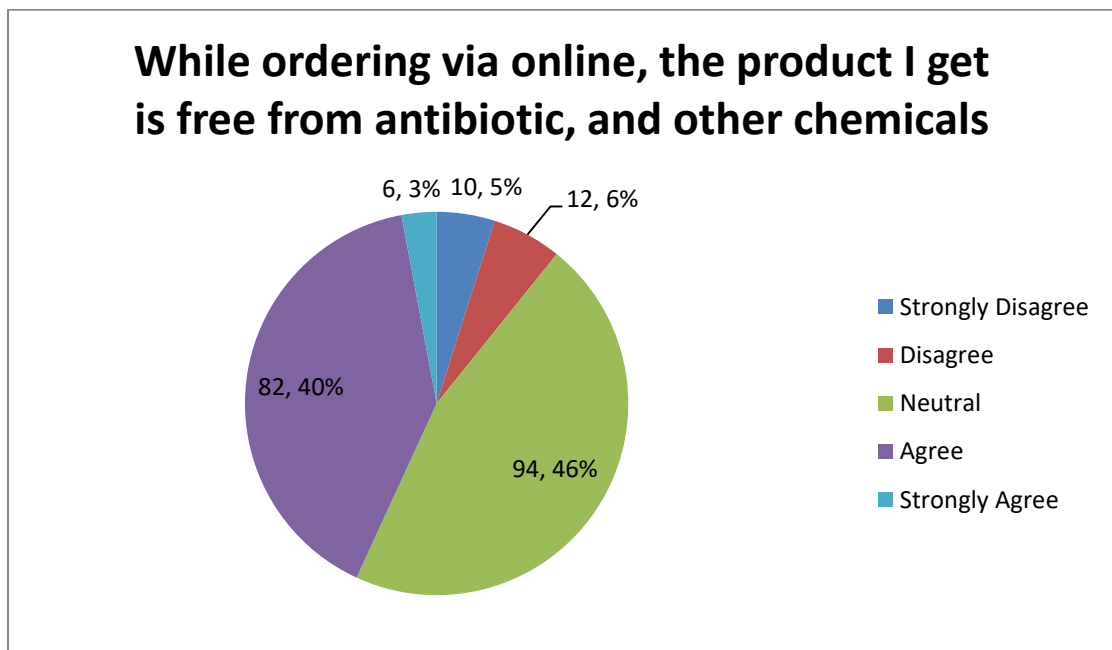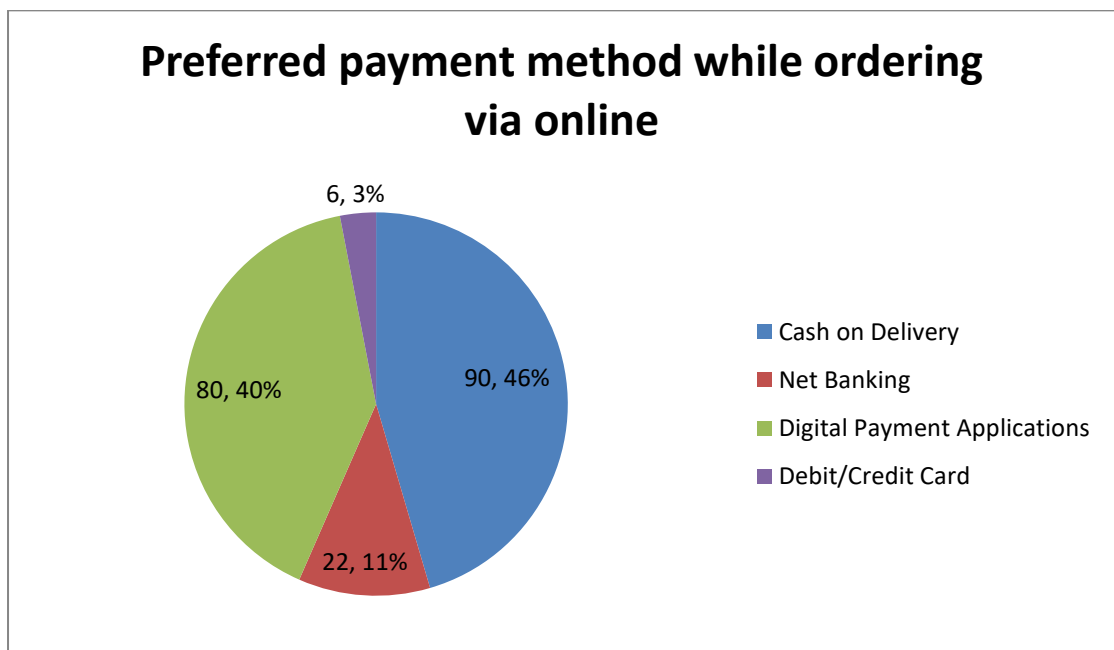

Interpretation

To the question 'While ordering via online, the product I get is free from antibiotic, and other chemicals' the respondents replied as follows 46 % is neutral, 40% agree

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to the statement and only 3% strongly agree to it. Companies should make aware about their production and processing process to the consumers in order to eliminate neutrality to this response.

Table 4.2.17 showing Preferred payment method while ordering via online

Preferred payment method while ordering via online	Frequency	Percentage
Cash on Delivery	90	46 %
Net Banking	22	11 %
Digital Payment Applications	80	40 %
Debit/Credit Card	6	3 %
Total	198	100 %

Figure 4.2.17 showing Preferred payment method while ordering via online

Preferred payment method while ordering via online

- Cash on Delivery — 90, 46%
- Net Banking — 22, 11%
- Digital Payment Applications — 80, 40%
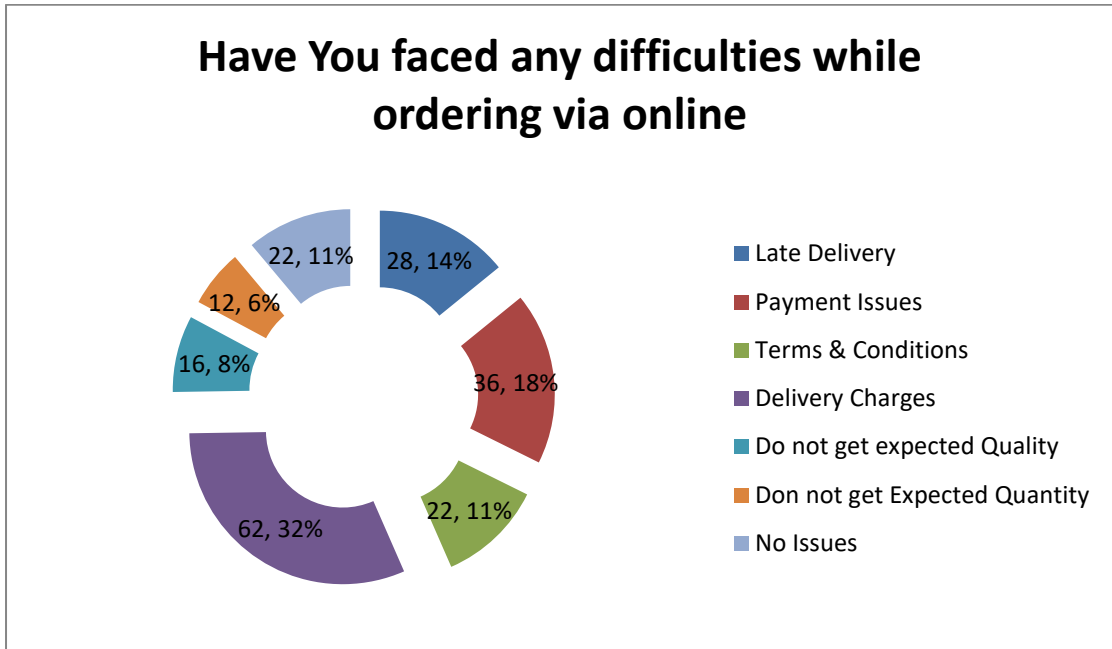- Debit/Credit Card — 6, 3%

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Interpretation

To the question, 'Preferred payment method while ordering via online' the researcher got the following responses. 46 % of the respondents prefer cash on delivery, 40% preferred digital payment applications like Google pay, Phonepe, UPI.11 % of the respondents prefer net banking for their payments and 3% uses debit/credit cards for their payment methods.

Table 4.2.18 showing consumer difficulties while ordering via online

Have You faced any difficulties while ordering via online	Frequency	Percentage
Late Delivery	28	4 %
Payment Issues	36	4 %
Terms & Conditions	22	29 %
Delivery Charges	62	52 %
Do not get expected Quality	16	100 %
Don not get Expected Quantity	12	
No Issues	22	
Total	198	100 %

Figure 4.2.18 showing consumer difficulties while ordering via online

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Have You faced any difficulties while ordering via online

- Late Delivery
- Payment Issues
- Terms & Conditions
- Delivery Charges
- Do not get expected Quality
- Don not get Expected Quantity
- No Issues

28, 14%
36, 18%
22, 11%
62, 32%
16, 8%
12, 6%
22, 11%

Interpretation

To the question **'**Have You faced any difficulties while ordering via online**'** the respondents replied as follows: 32 % of the respondents are having delivery charges difficulties, 18% of the respondents having payments issues, 14 % of the respondents had late delivery difficulties, 8% did not get the expected quality, 6 % expected quantity, 11 % have no issues.

Table 4.2.19 showing Likert scale concerned to the brand

	I am using a well-known brand	the brand I use has a clean image	the brand I use has a unique image in comparison with the competitors	the brand I use is a well-established brand	the brand I use stands for quality

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Strongly Disagree	10	10	16	8	12
Disagree	6	10	6	10	8
Neutral	68	52	66	58	60
Agree	74	84	80	76	78
Strongly Agree	40	42	30	46	40

Figure 4.2.19 showing Likert scale concerned to the brand
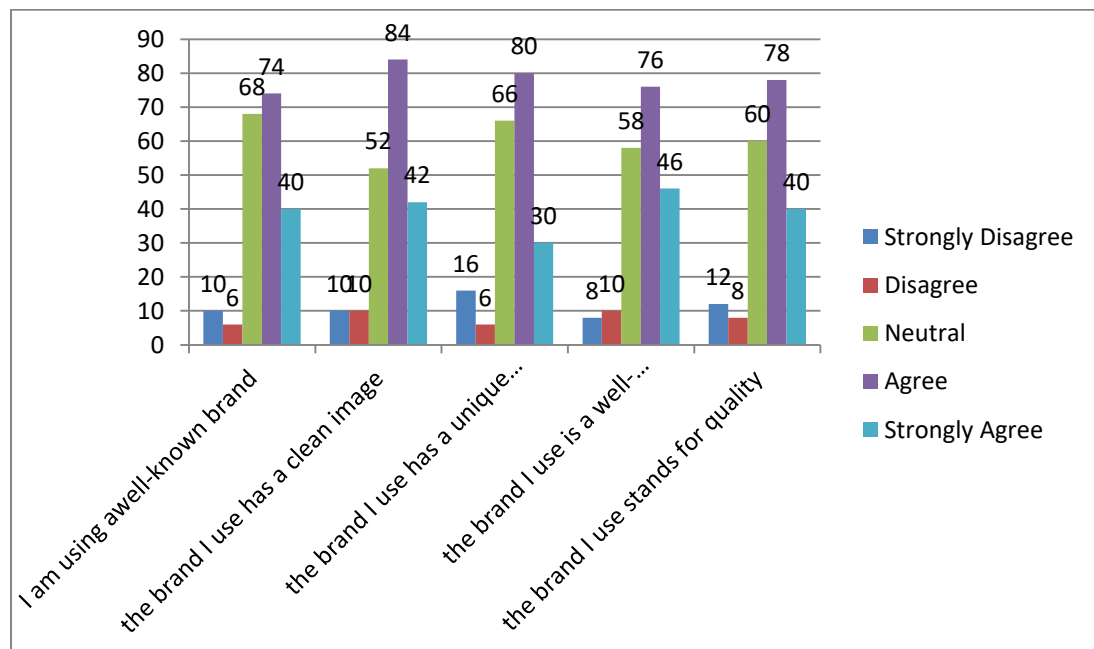
Interpretation

To the question 'Please indicate the degree to which you agree with the following statements concerned to the brand of online delivery that you use.' The indicators were *I am using a well-known brand, the brand I use has a clean image, the brand I use has a unique image in comparison with the competitors, the brand I use is a well-established brand, the brand I use stands for quality*. For these, a five point Likert scale, which is termed as a summated instrument scale used. It consists of a number of statements which express whether a positive or negative attitude towards the object of interest. The respondents are asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitude, and the scores are totalled to measure the respondent's attitude, which will be discussed below.

Table 4.2.19(a) showing Likert scale concerned to the brand (%).

	I am using a well-known brand	the brand I use has a clean image	the brand I use has a unique image in comparison with the competitors	the brand I use is a well-established brand	the brand I use stands for quality
Strongly Disagree	5 %	5 %	8%	4%	6%
Disagree	3 %	5%	3%	5%	4%
Neutral	35%	26%	34%	30%	30%
Agree	37%	43%	40%	38%	40%
Strongly Agree	20%	21%	15%	23%	20%

For 'I am using a well-known brand'- the responses were 20% strongly agree, 37 % agree 35 % neutral, 3 %disagree and 5 % strongly disagree.

For 'the brand I use has a clean image' the responses were – 21 % strongly agree, 43 % agree, 26 % neutral, 5 % disagree and 5 % strongly disagree.

For ' the brand I use has a unique image in comparison with the competitors' the responses were, 15 % strongly agree, 40 % agree, 34 % neutral, 3 % disagree and 8 % strongly disagree.

For ' the brand I use is a well-established brand' the responses were, 23 % strongly agree, 38 % agree, 30 % neutral, 5 % disagree and 4 % strongly disagree.

For ' the brand I use stands for quality' the responses were20 % strongly agree, 40 % agree, 30 % neutral, 4 % disagree and 6 % strongly disagree.

BRAND EXPERIENCE

Table 4.2.20 showing Likert scale concerned to brand experience

	I regularly buy this brand	I usually use this brand as my first choice	I will recommend this brand to others	I will not switch to any other brand	I am loyal to the brand that I use usually
Strongly Disagree	14	6	8	8	16
Disagree	40	30	8	50	22
Neutral	82	58	62	82	90
Agree	40	76	86	42	54
Strongly Agree	22	28	34	10	16

Figure 4.2.20 showing Likert scale concerned to brand experience
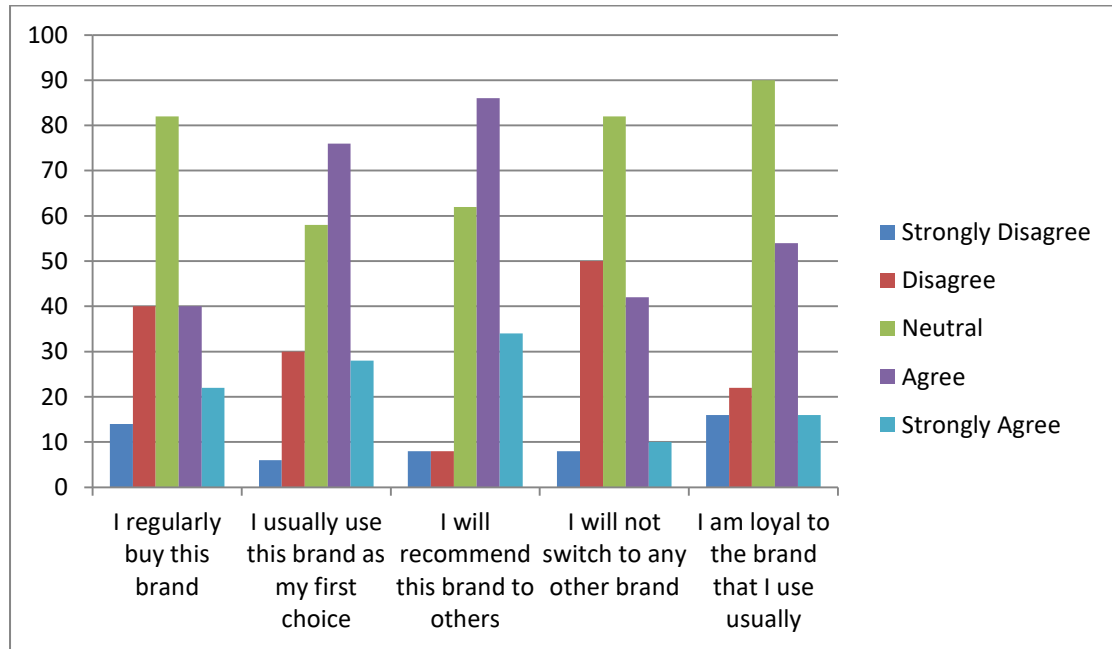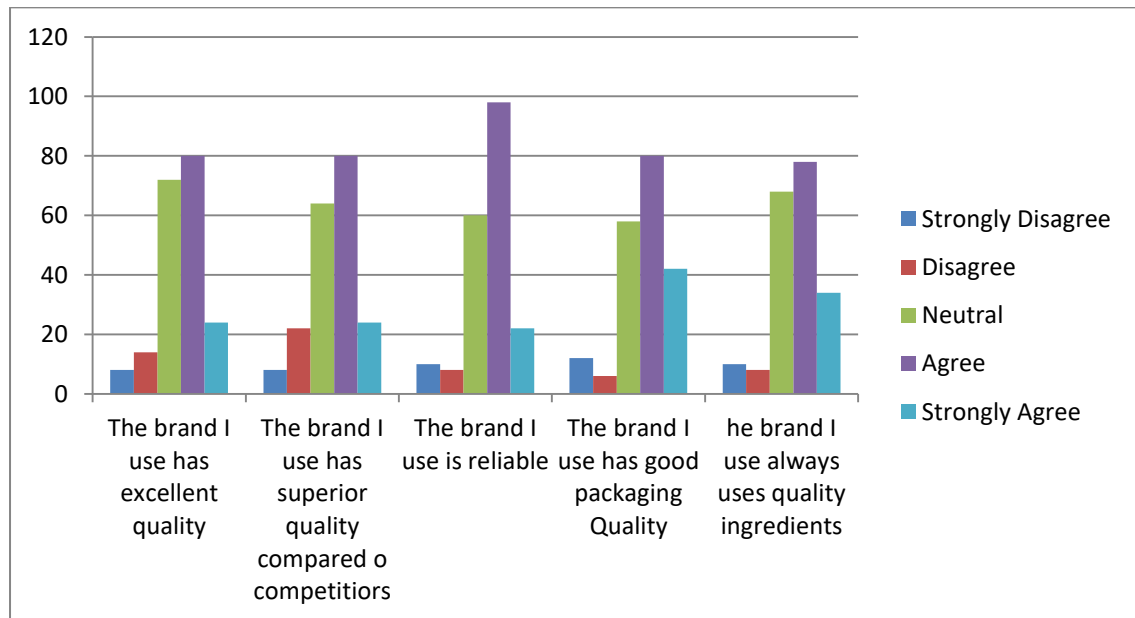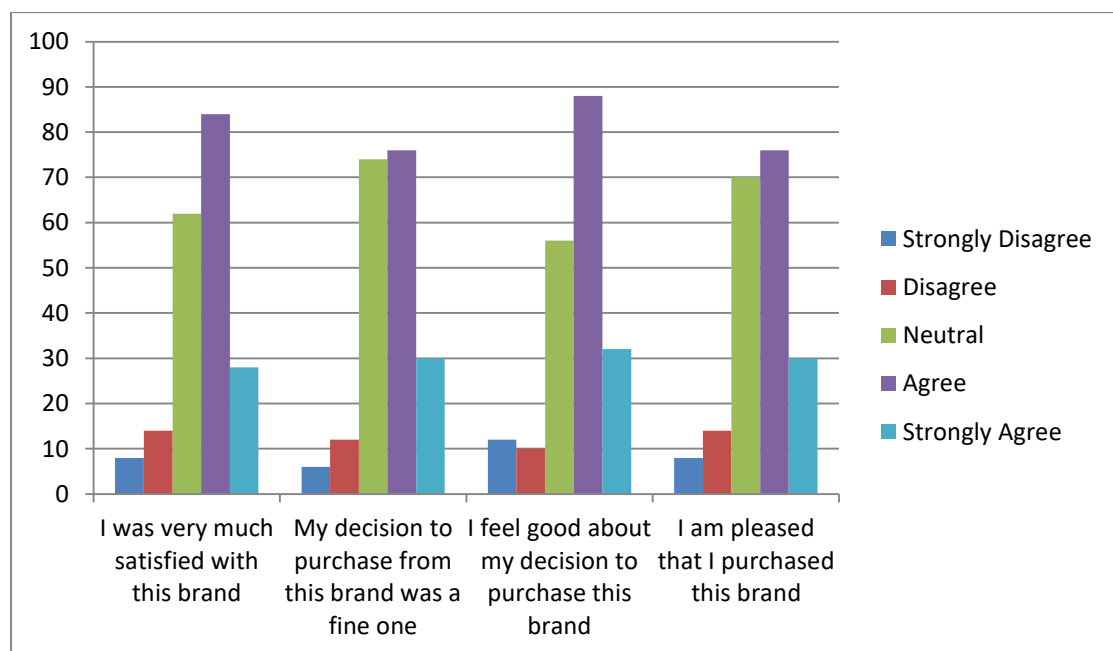

Interpretation

To the question 'Please indicate the degree to which you agree with the following statements concerned to your experience with the online delivery that you use.' The indicators were *I regularly buy his brand, I usually use this brand as my first choice, I will recommend this brand to others, I will not switch to any other brand and I am loyal to the brand hat I use usually*. For these, a five point Likert scale, which is termed as a summated instrument scale used. It consists of a number of statements which express whether a positive or negative attitude towards the object of interest. The respondents are asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitude, and the scores are totalled to measure the respondent's attitude, which will be discussed below.

Table 4.2.21 showing Likert scale concerned to quality of the brand

PERCEIVED QUALITY

	The brand I use has excellent quality	The brand I use has superior quality compared o competitors	The brand I use is reliable	The brand I use has good packaging Quality	he brand I use always uses quality ingredients
Strongly Disagree	8	8	10	12	10
Disagree	14	22	8	6	8
Neutral	72	64	60	58	68
Agree	80	80	98	80	78
Strongly Agree	24	24	22	42	34

Figure 4.2.21 showing Likert scale concerned to quality of the brand.

Interpretation

To the question 'Please indicate the degree to which you agree with the following statements concerned to the quality of the online delivery that you use' The indicators were *The brand I use has excellent quality, The brand I use has superior quality compared to competitor, The brand I use is reliable, he brand I use has good packaging quality, he brand I use always uses quality ingredients.* For these, a five point Likert scale, which is termed as a summated instrument scale used. It consists of a number of statements which express whether a positive or negative attitude towards the object of interest. The respondents are asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitude, and the scores are totalled to measure the respondent's attitude, which will be discussed below.

Table 4.2.22 showing Likert scale concerned to customer satisfaction.

CUSTOMER SATISFACTION

	I was very much satisfied with this brand	My decision to purchase from this brand was a fine one	I feel good about my decision to purchase this brand	I am pleased that I purchased this brand
Strongly Disagree	8	6	12	8
Disagree	14	12	10	14
Neutral	62	74	56	70
Agree	84	76	88	76
Strongly Agree	28	30	32	30

Figure 4.2.22 showing Likert scale concerned to customer satisfaction

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Interpretation

To the question 'Please indicate the degree to which you agree with the following statements concerned to your level satisfaction with the online delivery that you use..' The indicators were *I was very much satisfied with this online delivery of fish, seafood and meat brand/app, My decision o purchase his brand was a wise one, I feel good about my decision to purchase this brand/ app, I am pleased that I purchased this product/brand/app* For these, a five point Likert scale, which is termed as a summated instrument scale used. It consists of a number of statements which express whether a positive or negative attitude towards the object of interest. The respondents are asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitude, and the scores are totalled to measure the respondent's attitude, which will be discussed below.

Hypothesis Testing

Hypothesis 1

Table 4.3.1 showing There is a significant relationship between Brand Loyalty and Perceived Quality

Correlations		Brand Loyalty	Perceived Quality
Brand Loyalty	r	1	.816**
	Sig. (2-tailed)		.000
	N	198	198
Perceived Quality	r	.816**	1
	Sig. (2-tailed)	.000	
	N	198	198
**. Correlation is significant at the 0.01 level (2-tailed).			

Pearson product correlation of Brand Loyalty and Perceived Quality was found to be highly positive $(.7 < |r| < .9)$ and statistically significant $(r=.816, p<.001)$. Hence Hypothesis 1 was supported. This shows that an increase in brand loyalty would lead to higher perceived quality among the customers.
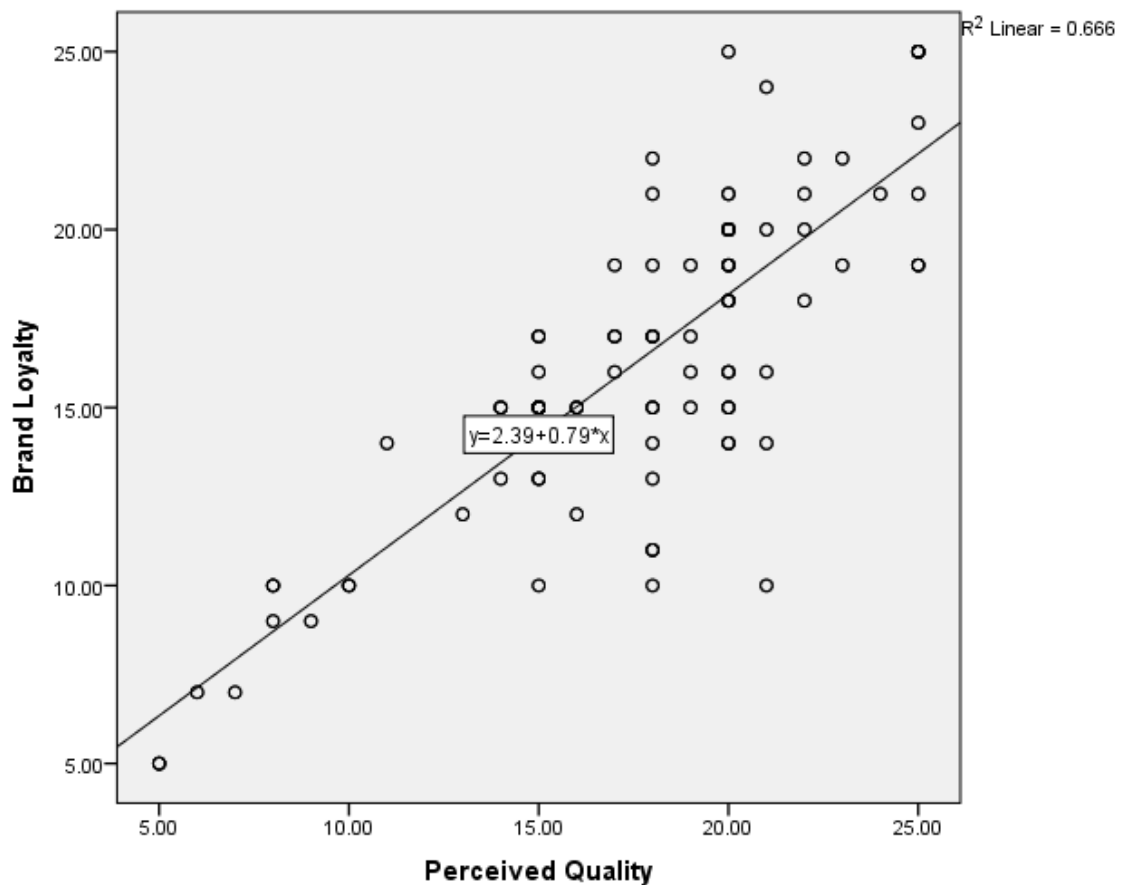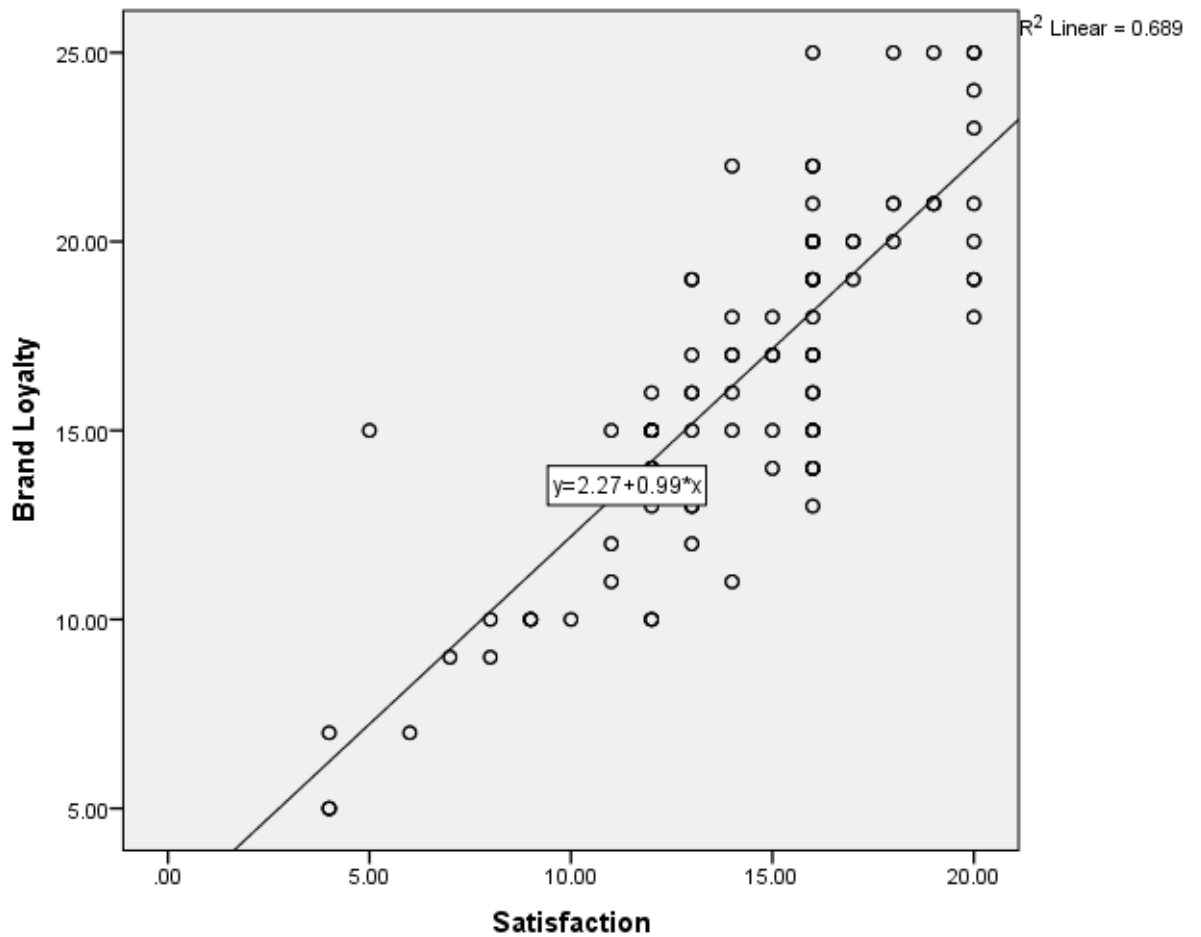

Hypothesis 2

Table 4.3.2 showing There is a significant relationship between Brand Loyalty and Customer Satisfaction.

Correlations		Brand Loyalty	Satisfaction
Brand Loyalty	r	1	.829[**]
	Sig. (2-tailed)		.000

		198	198
Satisfaction	r	.829[**]	1
	Sig. (2-tailed)	.000	
	N	198	198
**. Correlation is significant at the 0.01 level (2-tailed).			

Pearson product correlation of Brand Loyalty and Customer Satisfaction was found to be highly positive ($.7 < |r| < .9$) and statistically significant ($r=.829$, $p<.001$). Hence Hypothesis 1 was supported. This shows that an increase in brand loyalty would lead to higher customer satisfaction.

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Hypothesis 3: **There is a significant difference in Brand Loyalty across gender of customers.**

Table : Descriptive statistics of the mean and standard deviation of brand loyalty across gender groups.

	N	Mean	Std. Deviation
Female	92	17.0217	3.94182
Male	103	15.6990	4.82200
Prefer Not to say	2	15.0000	.00000
Total	197	16.3096	4.44588

*Table: One Way ANOVA Result (**Brand Loyalty differ across gender groups of customers.**)*

Brand Loyalty					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	88.485	2	44.243	2.267	.106
Within Groups	3785.626	194	19.514		
Total	3874.112	196			

*Significance at 5% level

The hypothesis tests whether the brand loyalty of customers differ across gender groups. Customers were divided into three groups based on their gender (Male, Female, prefer not to say).

The ANOVA test suggests that; Brand Loyalty scores of different gender groups are not differ that much ($F_{2,194}$ = 2.267, p = 0.106), and not statistically significant. The test indicates that the mean scores for different gender groups are

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significantly not that much different. Male (*M*=15.6990, *SD*=4.82200), Female (*M*=17.0217, *SD*=3.94182), Prefer not to say (*M*=15.000, *SD*=0.000) are significantly not that much different, hence not support the Hypothesis 3.

Means Plots
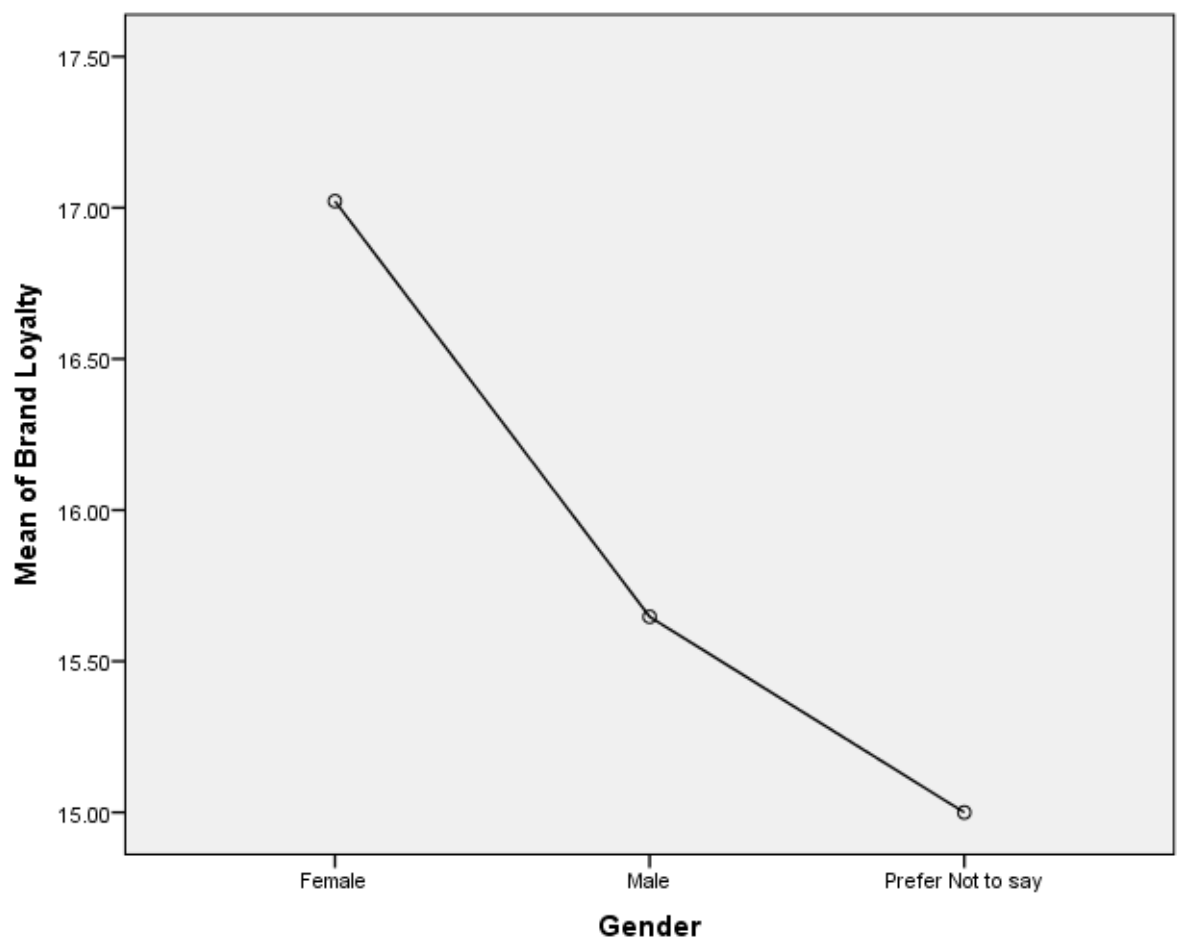
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CHAPTER 5

CHAPTER 5

5.1 INTRODUCTION

In the previous chapter the analysis and interpretation of the collected data was discussed. The present chapter deals with the findings, suggestions and conclusions of the study based on the results given in chapter five. The present chapter is split in to three divisions. The first division deals with the findings of the study. The second division deals the suggestion for the further research and the third division gives the conclusion.

5.1 SUMMARIES OF FINDINGS

This study is based influence of brand equity components among online customers of fresh fish, seafood and meat in food category In this study, a properly constructed questionnaire is used to collect data through Google forms, . From this the researcher concluded to the following

The brand awareness study is inevitable in marketing research as it will be required to know the level of knowledge about the brands among customers in various product categories. The brand knowledge may vary customer to customer as some may be aware a lot about the brand, some may know only the brand name and some may not be able to recognise the brand. The marketers have to make sure that their potential customers are at least able to recognise their brand and should make their brand as the first recalled brand among the product category. This study was conducted among the

online customers of fresh fish, meat and seafood to know the brand awareness level, brand loyalty, customer satisfaction in food category.

- From this study it was understood that the Freshtohome, Licious, Bigbasket, and Tendercuts brands are well known brands in this category.
- Most of the customers could also recognise the brands like Freshtohome, Licious, Bigbasket Tendercuts etc.
- Freshtohome is the first recalled brand by most of the respondents among this category, which shows Freshtohome as the brand that is considered to be the top-of-the-mind awareness among this category.
- Most of the customers use Freshtohome, Licious, Bigbasket, Tendrcuts brands.

It was found to be highly positive when the relationship between brand loyalty and perceived quality is analysed. The perceived quality has a positive effect on brand loyalty of online consumers of fresh fish meat and seafood in food category.

- The relationship between brand loyalty and customer satisfaction showed a highly positive relationship and found that customer satisfaction will lead to brand loyalty.
- Therefore we can understand that customer satisfaction and perceived quality has an important role in brand loyalty with respect to online consumers of fresh fish meat and seafood in food category.
- Also from the analysis it was found that the brand loyalty doesn't change because of gender.

SUGGESTIONS

The result of the study can be utilised by the marketers of various online consumers of fresh fish meat and seafood product manufacturers. The problem of not

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even being recognised by the target market can be understood and can take necessary action to increase the brand recognition. Those brands which are recognised by the target market but not recalled immediately may focus on increasing their recall level and should try to be the leader in the market. The brands which are recognised by the target market but not used by the customers should go for some sales promotion activity to motivate the customers to try out their products. The researcher believe that this study has given new insights into the brand awareness level among the online delivery of fresh fish meat and seafood product category and suggest that the proper brand management and brand communication strategy can enhance the brand awareness level, through which the customers will be motivated to purchase and use the brand.

Brand loyalty is an important concept of marketing. It is an association which is driven by trust between the consumers and a brand. Here the consumers develop an emotional connection with their brand. Even if any brands come across them, they will keep opting that brand itself. It's because of that they find the brand trustworthy and top quality when compared with other competitors.

Despite any advertisements or other marketing activities, customers repeat their purchase. Hence, many companies are utilizing their time and money for satisfying their target market. Brand loyalty empowers the brand to enjoy their loyal customers.

It is important for the companies to concentrate on brand loyalty as a) it provides competitive advantage in market b) company will experience repetitive buying of their products c) it will increase the sales and which results in increased profit d) fewer chances that the loyal customers will be attracted by other brands e) promotion through word of mouth.

Although the present study focused on brand awareness, perceived quality and customer satisfaction, the future researchers may focus on other determinants of brand loyalty such as brand image, brand association etc. There may be some reasons why

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customers are not much aware of other brands in this category, which also should be considered. This gives scope for future research on the reasons for awareness and unawareness of the brands. This study was conducted among the online consumers of fresh fish, seafood and meat in food product category; it can be applied to various other categories too.

CONCLUSION

Researchers have arrived at a few conclusions after verifying the results of the study on brand awareness, and perceived quality, customer satisfaction on brand loyalty of online consumers of fresh fish, seafood and meat in food product category,

- o Freshtohome is having the highest level of brand recall and is having the top-of-the-mind awareness among the online delivery of fresh fish, seafood and meat in food product category.
- o Majority of the respondents could recognise the brands such as Freshtohome, Licious, Bigbasket in the online delivery of fresh fish, seafood and meat in food product category
- o Creation of brand loyalty is essential in the online consumers of fresh fish, seafood and meat in food product category as most of the customers use a particular brand which is recommended by social media.
- o Perceived quality and customer satisfaction predicts brand loyalty. Marketers of online consumers of fresh fish, seafood and meat in food product category should focus on the perceived quality as well as the customer satisfaction as both of these are strong determinants of brand loyalty.
- o There is no need for various marketing strategies based on the customer's gender because there is no difference in brand loyalty based on gender, of the customers.

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Department of Fisheries | Fisheries Department - Kerala

FreshToHome Home - Buy Fresh Fish, Chicken and Mutton Online.

APPENDIX

Questionnaire

1.   Email *

……………………………………………..

2.   Gender * (Mark only one Box)

☐   Male

☐   Female

☐   Prefer not to say

3.   Age * (Mark only one Box)

☐   18- 25

☐   26-30

☐   31-35

☐   36-40

☐   41 above

4.   Educational Qualification? * (Mark only one Box)

☐   10th or below

☐   Plus 2

☐   Bachelor's Degree

☐   Master's Degree or higher

5.   Annual Income? * (Mark only one Box)

☐   within 2.5 lakhs

☐   2.5 lakhs- 3 lakhs

☐   3 lakhs -5 lakhs

☐   5 lakhs -7.5 lakhs

☐   7.5 lakhs and above

6.   Place of residence (District)? * (Mark only one Box)

☐ Thiruvananthapu ram	☐ Idukki	☐ Kozhikode
☐ Kollam	☐ Ernakulam,	☐ Wayanadu
☐ Alappuzha	☐ Thrissur	☐ Kannur
☐ Pathanamthitta	☐ Palakkad	☐ Kasaragod.
☐ Kottayam	☐ Malappuram	

7.   Where is your home located ? *

☐   Panchayath

☐   Municipality

☐   Corporation

8.   When you think of online delivery of fresh fish, seafood and meat in food category which all brands/ apps comes to your mind ? List any five *

……………………………………………………………………………………………………

………………………………………………………………………………………

9.   Which all brands/apps do you know in the following list? * (Check all that apply)

☐ Freshtohome   ☐ Meatwale   ☐ Tendercuts

☐ Licious   ☐ FishMart   ☐ Fish4you

☐ Zappfresh   ☐ Freshpick   ☐ Other

☐ Bigbasket   ☐ Freshfish Basket

As you fill out this section, In ONLINE DELIVERY OF FRESH FISH, SEAFOOD AND MEAT PLEASE THINK OF YOU USE REGULARLY.

10.   Name the brand OF FRESH FISH, SEAFOOD AND MEAT that you use usually? *

…………………………………………………………………………………………

11.   How long have you been using this brand? * (Mark only one Box)

☐ Less than 1 Year

☐ 1 to 3 Years

☐ 3 to 5 Years

☐ 5 Years and above

12.   How often you typically purchase this brand? * (Mark only one Box)

☐ Weekly   ☐ less frequently than once a year

☐ once in every two weeks   ☐ I've only purchased once before

☐ monthly   ☐ I've never purchased before

☐ every 2-6 months

☐ every 7-12 months

13.   How did you come to know about this brand? * (Check all that apply)

☐ Friends & Relatives   ☐ Magazine Ads

☐ Social Media   ☐ Other

☐ Television Advertisements   …………………………….

☐ News Paper Ads

14. Which all products you buy usually? * (Check all that apply)

☐ Fish & Seafood   ☐ Steaks & Fillets

☐ Poultry   ☐ Ready to Cook products

☐ Mutton   ☐ Idly/Dosa Batter

15. What Factor was mostly influencing you in purchasing through online delivery?
* (Mark only one Box)

☐ easy to use

☐ speedy delivery

☐ offers (discounts/ vouchers)

☐ other customer rivews

☐ variety in foods

☐ busy schedule

16. While ordering via online, the product I get is fresh? * (Mark only one Box)

☐ Strongly disagree   ☐ Agree

☐ Disagree   ☐ Strongly agree

☐ Neutral

17.   While ordering via online, the product I get is free from antibiotic, and other chemicals? * (Mark only one Box)

☐ Strongly disagree   ☐ Agree

☐ Disagree   ☐ Strongly agree

☐ Neutral

18.   Preferred payment method while ordering via online * (Mark only one Box)

☐ Cash on Delivery

☐ Net Banking

☐ Digital Payment Applications(Google Pay, Phonepe, UPI etc)

☐ Debit/Credit Card

19.   Have You faced any difficulties while ordering via online * (Mark only one Box)

☐ Late Delivery   ☐ Do not get Expected Quality

☐ Payment issues   ☐ Do not get Expected Quantity

☐ Terms & Conditions   ☐ Other …………………..

☐ Delivery Charges

20. Please indicate the degree to which you agree with the following statements concerned to the brand of FRESH FISH, SEAFOOD AND MEAT that you use. * (Mark only one Box per Raw)

	1- Strongly Agree	2- Disagree	3- Neutral	4- Agree	5- Strongly Agree
I am using a well known brand					
The brand I use has a clean image					
The brand I use has a unique image in comparison with the competitors					
The brand I use is a well established brand					
The brand I use stands for quality					

21. Please indicate the degree to which you agree with the following statements concerned to your experience with FRESH FISH, SEAFOOD AND MEAT that you use.* (Mark only one Box per Raw)

	1- Strongly Agree	2- Disagree	3- Neutral	4- Agree	5- Strongly Agree
I regularly buy this brand.					
I usually use this brand as my first choice.					
I will recommend this brand to others					
I will not switch to					

any other brand					
I am loyal to the brand that I use usually					

22. Please indicate the degree to which you agree with the following statements concerned to the quality of FRESH FISH, SEAFOOD AND MEAT that you use.* (Mark only one Box per Raw)

	1- Strongly Agree	2- Disagree	3- Neutral	4- Agree	5- Strongly Agree
The brand I use has excellent quality					
The brand I use has superior quality compared to competitors					
The brand I use is reliable					
The brand I use has good packaging quality.					
The brand I use always uses quality ingredients					

23. Please indicate the degree to which you agree with the following statements concerned to your level satisfaction with FRESH FISH, SEAFOOD AND MEAT that you use.* (Mark only one Box per Raw)

	1- Strongly Agree	2- Disagree	3- Neutral	4- Agree	5- Strongly Agree
I was very much satisfied with this Brand/App					
My decision to purchase this BranApp was a wise one.					
I feel good about my decision to purchase this Brand					
I am pleased that I purchased this Brand					