SURVEY BASED ON THE ONLINE RAW MEAT DELIVERY AND ITS IMPACT ON THE DIGITAL MARKET POST PANDEMIC

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Abstract— A large growing market now revolves around selling perishable products such as meat, including poultry and seafood. Virtually many/every kind of fresh meat has been available for customers or purchasers from online vendors, there is very little research that examines the handling, safe delivery that influences this unorganized sector [1]. The purpose of my paper revolves around analyzing the policies for delivering online raw meats by the purveyors of this product. And also, to emphasize the food safety data that are given on the websites of online sellers for this particular sector. Hence, I thought of this website that meets the need of the current Digital Market and is convenient to its users. "WOW SHOPPER" enables the user to browse the range of products along with information about the product's specifications, features, and prices. The digital environment has a growing effect on consumers' minds and buying behavior, this is what makes our website feasible to the current scenario.

Keywords— Perishable products, unorganized sector, analysis, Digital Market, website, meat industry, current scenario.

I. INTRODUCTION

The "wow shopper" is an online grocer's website that will permit online non-vegetarian sales. Wow, the shopper will enable the customer to browse through a range of products along with the information about the product's specifications, features, and prices. This website will typically enable non-vegetarian shoppers to use "search" features to find specific products and descriptions. These days, people are likely to use their mobile phone computer, and other digital devices to shop for everyday items, mainly because of the global pandemic[1]. Hence the digital environment has a growing effect on consumers' minds and buying behavior. This is where "wow shopper" comes into the picture. The online world has started showing interest in the meat industry as it has the opportunity to revolutionize this unorganized sector.

Early entrant's including Zappfresh, Licious, and Early-meat have captured a fair share of the market and have been successful in breaking even operationally. This is how I thought of Wow Shopper, an online raw meat delivery website.

II. RELATED WORKS

There are many online raw meat delivery systems to date, let's have a closer look at each of them.

1. Existing Systems:

According to the market research firm on online early entrants like Licious and FreshToHome have gained importance quickly[2]. Even online grocers like Big Basket have been in the game when it comes to the meat Industry online. The broad market for meat was fairly developed since 2019 with a market size of RS700 crore. Since the online world has been in rapid growth since the pandemic Online meat industry like Licious, Zappfresh and FreshToHome have seen three times growth in online meat orders since the outbreak in India. India's overall market for meat in 2019 was estimated to be at Rs 330k crore in gross merchandise value (GMV). It is rapidly growing and is estimated to reach Rs 460K crore by 2024 according to firm forecasts.

III. RESEARCH ON HYGIENE OF THE PRODUCTS AVAILABLE:

The Global Pandemic that is Covid-19 scare, enabled the people to stop shopping manually from their neighborhood meat market. This in return helped the online meat sector to great extent. The meat sector immediately upped their game and targeted customer concerns, including lack of hygiene, fewer options, and wait times at the manual shops that were long and easy to access [2]. The online meat delivery sector made sure that the product they provided were fairly clean, they made sure of the products like no stain of blood and with negligible odor.

IV. DELIVERY POLICIES:

When it comes to fresh meats the HACCP or Hazard Analysis Control Points has to be followed for the safeguard of these perishable products such as poultry and seafood which emphasizes the temperature use while the product is still within the vendor's grasp. The main challenge comes when the products leave the vendors because of their perishable nature and almost no control over the cold chain which in result can affect the safe shipment of the same since mostly a parcel delivery system is used to deliver these items[2].

When it comes to the safe delivery of perishable products the delivery agent is not responsible for the shipment but rather the whole responsibility falls under the shipper's who have to ensure the appropriate packaging and has ample refrigerants for the safety of these perishable items. If the shippers fail to use the proper packaging techniques the delivery agents or the delivering company is not responsible for the liability for spoiled raw food.

The perishable products are usually handled with more precision and are normally packed with containers of gel/dey ice packs, the fact that they are delivered using the same techniques as other non-perishable items make it highly unsustainable and this practice can be hazardous because of the lack of temperature abuse which in return can result in the pathogenic growth of bacteria. This raises the likelihood of the consumers of these products being exposed to foodborne pathogens.

Signature release of such products is common when we look into the existing systems for the perishable products, but the extent to how it's done is still undocumented.

2. *Information of safety of food*

• When it comes to the safety of the food products it is a vital point that the vendors follow certain guidelines like handling of the product, thawing, and storing. The Food Safety and Inspection emphasizes the fact that these raw materials should not be handled in the temperatures like 40-140 degrees Fahrenheit for longer than 1 ½ hours. Because the pathogenic bacteria can grow at a rapid pace at these temperatures[3]. The presence of pathogens might go undetected as these pathogens do not disrupt the smell, appearance of the food, and taste. The food safety and inspection have also urged the customers of these perishable products to refrigerate and thaw them in the microwave to get rid of contamination hazards.

• There is a vast differentiation when it comes to the websites for these perishable products in the market. Some websites provide the least information when it comes to products specifications and information regarding the pricing and shipping while others provide ample information regarding the same.

• Regardless of the online purveyors' marketing expertise or the Web sites' level of sophistication, food safety information concerning how to safely handle, store, thaw, and cook the perishable products they sell should be an essential part of Web site content to prevent potential foodborne illness among customers[3].

• Yet there is no requirement that online purveyors display food safety information on their Web sites, and the extent to which food safety information is incorporated into the Web sites of online purveyors of perishable meat, poultry, and seafood is undocumented. Therefore, the second part of this study was designed to examine this question[3].

3. *Methodologies*

Google searches with the terms online, delivery, meat, poultry, game, fish, shellfish, and seafood, as well as specialized terms, were used to find online purveyors.

Beef, ground beef, and other goods in these categories buffalo, chicken, duck, goose, lamb, pork, turkey, fish, crab, clam, oyster, and lobster are just a few of the dishes available[4]. The Web sites were also coded to see if they contained advice on proper handling, storing, and thawing and the preparation of the food (including temperature guidelines). On the Web sites, the location of this food safety information was also recorded. The number of mouse clicks required to find food safety information was used as a proxy for the number of levels a customer needs to go inside a Web site to find this critical information as a measure of accessibility. Although food safety information may be available on multiple pages within a single website, a precautionary measure (i.e., where food safety information is not available) should be taken. It was picked for the first time) was selected. All coding was done by hand and carried out by two programmers who examined each Web site separately[4]. Coding inconsistencies were resolved through the two coders' agreement

V. DISCUSSIONS

A. *Policy for delivery of Perishable Products*

I found 12 online providers of fresh uncooked meats, poultry, game, and seafood (finfish and shellfish) who employ common carriers on their websites. Zomato and Swiggy are two examples of companies that deliver straight to customers. The varieties of foods available on the websites are displayed. The below Table demonstrates that meat and seafood make for a significant portion of the total for roughly one-third to one-fourth of the meal[5]. 43% of the Web sites assessed only sold fish, while 14% only sold meat (beef, hog, and lamb). Food Protection Trends omitting sausages or goats. All of the

following were sold by 8% of the purveyors: seafood, meat, poultry, and eggs.

Types of raw meat offered on Web Sites		
Type of raw meat offered on online websites	*n*	*%*
Meat	384	30
Seafood	279	22
Poultry	172	14
Sausages	126	10
Other	58	5

Customers should make sure that the intended recipient is at home to accept the perishable shipment, according to a minority of supplier Web sites (14 percent) to accept the delivery and refrigerate it as soon as possible if you want it sent to a business address, or if you want it to be sent to a business address. Even though the vast majority of people (81%) do not make it.

Instead, many vendors simply state on their websites that they are not responsible for the contents of parcels once they have been delivered including theft, spoilage, and weather-related issues[5]. Indeed, 51 of the purveyors (12%) have a specific product in mind. Customers should be reminded that they will not be held liable if there is no response or no one is available to accept the delivery on the specified day, or if the package is left unattended, if it is lost or stolen, or if it gets spoilt due to the weathe[4]r.

Online vendors who send perishables by signature release make a variety of arguments in favor of this approach. Companies cite time and convenience as reasons to forego the requirement.

B. Information about food safety:

More than half of the purveyors (58%) provide no advice about how to safely handle, store, thaw, or cook their raw items. The majority of the material (72 percent) on the 12 Web sites that do give some food safety information concentrates on cooking/preparation. 58 percent refers to the finest product storage strategies for their products [6]. 54 percent gives directions on how to best use the procedures and take care of the food. Furthermore, one-quarter (25%) of the Web sites that provide food safety instructions only provide information on one food safety component (cooking, storage, handling, thawing, or temperature control), as well as two of the five food safety issues were handled by one-third of respondents (34%).
Only nine Web sites (five percent) offered information about all five aspects of food safety.
Because of the nature of current delivery systems, purchasing perishable products online may constitute a food safety

concern. Exposure to severe temperatures during transport can damage products unless they are properly wrapped and contain sufficient refrigerants. Temperature abuse of the product may occur during transit and delivery of these perishable substances, which contributes to the spread of Food pathogens posing a threat to perishable goods' safety[6]. The lack of food safety information on the providers' websites exacerbates the risk to customers. As a result, websites lack crucial information on how to securely handle, store, and cook the products. Worse, some vendors give consumers incorrect advice telling them that perishable things that "feel cool to the touch" are fresh.

Policies by vendors and carriers deny responsibility for the delivery of spoilt, damaged, or dangerous perishable goods, as well as a lack of clear consumer remedy when this happens. They may also be particularly vulnerable if they are given dangerous materials which are problematic[6]. When faced with the prospect of abandoning potentially valuable information on perishable products that are dangerous but incredibly pricey, some Consumers may just choose to eat the products rather than "squandering" them.

Food safety information should be easily accessible on these websites, and it should ideally be shown on the home page (first page) or in conjunction with the specific pages as well as handling and storage methods and cooking preparations and timings. Temperatures for cooking are different based on the type of food depending on the perishable item using a more consistent approach. On the internet, there is jargon for food safety information.

A. Post-covid food services and information related to the rapid increase in Meat Industry:

Following the liberalization and opening up of the economy in 1991, the food services sector in India had its first major development spurt. Since then, it has experienced rapid expansion and internationalization of interests and preferences[7]. This is mirrored in the growing number of foreign food chains establishing operations around the country. Technopak's report titled Indian Food Services Market, which was quoted in Barbeque Nation Hospitality Limited (2021), separated the Food Sector's growth story into three distinct phases, each lasting ten years and commencing in 1991. The meat industry sector experienced a significant acceleration and growth in the second decade of the new century, defined by the organized sector's quick growth and expansion.

The exponential rise of Internet access and adoption of mobile phones has accelerated the third phase's growth and spread. Only 4% of the total population had access to the

Internet in 2007. However, from 2010 onwards, there was significant growth in Internet adoption. By 2020, over half of the world's population will be able to use the Internet. Simultaneously, the number of smartphone users in the country has increased significantly[7]. According to market research firms, India had 468 million smartphones in 2017 and is anticipated to have 859 million by 2022. According to reports, India had surpassed half a billion smartphone users by the end of 2019.

According to reports from 2014, India's food service business was on the verge of a massive shift. The rise of digital technologies was considered as a trigger for the movement of foodservice marketing expenditures to the online realm. In 2016–17, marketing expenditures accounted for about 4–6% of the industry's total revenues. In comparison to traditional formats, however, the spending trend revealed a favorable tilt toward digital media. Figure 1 depicts the breakdown of the various forms. The spending on digital videos by QSR and FD/IC accounts for more than half of their total budget[7]. Customers in the Café and PBCL divisions spend the most on third-party aggregators to make it easier for them to find outlets on their mobile devices.

B.   Online Delivery Websites:
In recent years, India's online food-delivery sector has become a duopoly, with big overseas competitors exiting. These are known as platform-to-consumer (P2C) segments in the foodservice industry, as opposed to restaurant-to-consumer (R2C) segments, where the order is typically received and handled online by the restaurant itself[8]. The internet portal acts as a middleman between the customer and the restaurant, providing thorough information about various restaurants, menus, and special offers (prices and discounts). The platform's agents also handle the logistics of pickup and delivery. Restaurants and/or consumers pay a commission to the platform.

In India, the two most popular food-delivery services have risen from near obscurity and limitation to large cities in 2015 to statewide presence by the end of 2020. Swiggy and Zomato, for example, both created their cloud systems only to shut them down later. The delivery company was more profitable. To provide a comparison view of the city-wise presence and daily orders over time provides a perspective on the progress of the two players.

C.   The Future of Digital Market:
By default, food services are hyper-local. Unlike traditional e-tailers that ship merchandise across great distances, hyper-local businesses focus on meeting demand within specific geographic areas by partnering with other local businesses[9]. Such enterprises can respond to client requests quickly, frequently in less than an hour, thanks to the expansion of logistics capacities enabled by technological advancements. India is gaining investment in hyper-local firms across a wide range of industries, including grocery, pharmacy, and logistics. Due to the inherent limits on mobility and physical access that the COVID-19 epidemic imposes, the emergence of such services would be accelerated.

The industry's environment will be altered as the unorganized portion that is the meat industry is expected to capitulate. This could be due to the segment's ongoing concerns and misgivings about safety and cleanliness. Due to a lack of working capital, the unorganized sector is unlikely to be able to withstand the pandemic's ravages for long periods. In the face of mounting crises, estimates that predicted a major share of the unorganized market even in 2025 may not hold. Low-cost company methods underpinned by increased digitization and marketing may be the way of the future. The aggregator-supported cloud kitchen model could be a viable paradigm for the future.

In the COVID age, consumer dietary habits have profoundly changed. According to an IPSOS research conducted in India, people's eating habits have changed, with a greater emphasis on healthful and immunity-boosting foods. In particular, the Godrej (2021) annual food trends report, which compiles expert opinions from food writers, consultants, chefs, hoteliers, restaurateurs, and industry leaders from across India, suggested that the post-pandemic period would be driven by safety and health concerns, as well as the growing dominance of cloud kitchens[9].

C.   References

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