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Online Meat Marketing: Technical, Socio-Economic, and Regulatory Challenges

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ABSTRACT

Today's consumers especially young population, millennials are no longer satisfied with the traditional food products and the way they are marketed. Rather they seek more variety, safety and convenience while purchasing the products. They have developed more dynamic, complex and differentiated demands. These changes in consumer behaviour have ignited the livestock industry to seek various ways to market their products, which suits the expectations and convenience of the customers. The lack of hygienic and quality product choices in the traditional 'seller-centric market' coupled with the demand for fresh, safe and hygienic meat are gradually modifying the consumer behaviour, especially in the urban meat market principally drive the e-commerce meat marketing in urban India. The e-commerce meat marketing has a superior supply chain management and hi-tech interventions technology interface than the offline options. This article reviews about various practical challenges faced by the online meat market including consumer's preference, meat safety and quality.

Keywords: e-marketing, Key issues, Market models, Meat and meat products

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INTRODUCTION

More than 90 per cent of the fresh meat (hot meat without any chilling) in India is sold through the retail meat shops (wet market) located in and around the residential areas. Most of these traditional meat shops lack even basic facilities required for hygienic handling, processing and storage of carcass and meat (Choudhury 2016). Even then, the majority of the customers have a gut feeling that the meat they buy from these open/wet markets are fresh as the fabrication of carcass into meat is carried out in their presence. However, from a hygienic point of view, and even much more from an aesthetical point, a traditional Indian retail meat shop can be regarded as a no-go area. With increase in disposable income and increasing awareness on importance of hygienic processing and handling of meat, wet meat markets are slowly declining, and sale of fresh, unchilled meat are getting reduced in the near future. The demand for hygienic and safe fresh meat, lack of cleanliness and quality products choices in the traditional 'seller-centric market' and convenience of purchase principally drive the e-commerce meat marketing in India. Although, the growth of this format does not spell the end of bricks-and-mortar retail shops, e-commerce grocery retailing certainly poses a threat to the traditional stores. With rapid urbanization and greater internet penetration, online meat marketers are coming up to Tier II and III cities. This provides an enormous opportunity for marketing branded products through organised retail channels. Eyeing at this prospect, convenience and increasing willingness to pay factor of the consumers have led to the growth of online marketing of meat and meat products. There are few big players exclusively focused for fresh meat category, especially in poultry meat. However, due to the shorter shelf life of products, they operate in specific regions within a limited geographical area. It is expected that online food market in India will grow at a compound annual growth rate of 25-30 per cent to touch \$7.5-8 billion by 2022, up from \$4 billion (Google and Boston Consulting Group 2020). Further, the domestic meat market is believed to reach \$85 billion by 2024, giving branded meat and meat products marketers a major share in the market both online as well as offline (Redseer, 2020).

Despite projections of the market and cultural shifts happening in * Corresponding author E-mail address: muthukumar55@rediffmail.com DOI: 10.5958/2581-6616.2020.00012.2

favour of online meat marketing, large scale preference for fresh meat coupled with lack of consumer's confidence in safety of chilled or frozen meat due to unreliable electrical power limit the market size of chilled and frozen meat and meat products (Montossi et al. 2013). Hence, there is a crucial need to evaluate the online meat marketing within the context of existing socio-economic, technological and legal environment. There is real potential for online meat marketing to bring about considerable factual and regulatory changes that are required for transforming the existing supply chain and ecosystem to an organised sector. In seeking to address these issues, this article provides an overview of the online meat marketing, identifies trends in retail meat marketing, details of technical challenges, issues in the current supply chain, key consumers and political and regulatory aspects of online meat marketing.

OVERVIEW OF ONLINE MEAT MARKETING IN INDIA

The Indian meat market was valued close to USD 30 billion and is one of the fastest growing industries at a CAGR of 22 per cent (Mintel 2017). Meat consumption is rigorously increasing in India. Around 72 % of people are now on non-vegetarian dietary habit and over 42 % of Indians eat meat every week. About 90 % of the meat supply comes from the unorganized wet markets and mandis. The meat available in the market is limited in terms of freshness and quality with inadequate cold chain facilities and storage.

With the growth of digital media marketplace in the last five years, food retailing has also grown dramatically, becoming an even stronger presence in the lives of people. Marketing techniques and technologies have shifted consequently, more and more virtual stores that sell products and services have emerged. The meat sector, which has a distinctive marked space all-time in the retail arena, has also witnessed this change dramatically. Robust growth of online meat marketing start-ups in India shoot-up in the Tier-I and Tier-II cities with differentiated products offering to satisfying their customers demand and convenience. Online retail channels are working hard to transform the inefficient supply chain and retail market predominantly occupied by local butcher shops into an efficient platform by quick delivery and response factor. They have brought uniqueness in their merchandise by creative differentiation in their products offering. In case of fresh meat, today one can shop meat in different forms through online

i.e. with skin, skinless, bone-in, boneless, special cuts (breast/leg/thigh//wings/drumstick), and even offals like heart, gizzard, liver separately. This value addition of the fresh meat enhances the margin of the retailers, and more and more categories are added to the Stock Keeping Units (SKU) to meet the demand and convenience of the customers. Several firms have now begun catering to this niche yet high potential market and millions are also being invested in the emerging space. Most dominant players in the raw meat supplying are Licious, Zappfresh, Starchik', Freshtohome, Bigbasket, everydaymeat, Farmfresh, TenderCuts, Neatmeat, Suguna etc.

BUSINESS MODELS

SDue to the growth of online meat marketing, several start-up companies have come up with different business models to structure their business behaviour in order to generate increased revenue and sustain the business. Each business model is unique and explains how the business works, makes profits, and plans to achieve its objectives. The business model includes all the business processes and policies that a company adopts and follows. Business models can be classified based on traded item, revenue and ownership pattern. Most prominently seen models in e-commerce business based on the ownership pattern are Company Owned Company Operated (COCO), Franchisee Owned Company Operated (FOCO) and Franchisee Owned Franchisee Operated (FOFO). In COCO model, the company is responsible for the investment, expansion as well as optimum resources utilisation while, FOCO module, franchisee takes care of fixed cost while, the company borne the running cost and in exchange, the franchisee receives a minimum guarantee or a share of gross sales. The Chennai based TenderCuts (GFM Retail Pvt. Ltd), an omni-channel fresh meat cuts and Seafood Company is the best example for FOCO model. FOCO model offers minimal risk for both franchisor and franchisee. In FOFO model, a non-refundable fee is paid for renting out a company's brand to a franchise for a predetermined time span. Company decides the prices and merchandising and also take care of marketing in print and electronic media. The franchise borne both capital expenditure and operational cost and is assured of minimum guarantee or percentage share of revenue. Several technology integrated start-ups in fresh meat are following COCO model.

The another prominent classification in the e-commerce business model is Inventory model, Market place model and Hybrid model. In marketplace model, company acts as a meeting ground for buyers and sellers without holding any physical inventory. But, they do provide shipping and payment assistance through strategic alliances with logistics and financial partners. In Inventory led model, company procures directly from brands manufacturer and retailers and stock it. Unlike marketplaces, where customers can choose from a variety of vendors, there are no multiple sellers selling the same thing. The seller is the e-commerce company and invoice is issued to the customers on the company's name. However, the stiff competition in the e-commerce platform has led to a mix model which is Hybrid model also called as 'managed marketplace' model. In hybrid model, the companies hold inventory, have private label brands and control over registered seller entities

through equity stake. Most of the online meat retailers follows Hybrid model only and few of them have market place model also. Because of the perishable nature of the commodity inventory led model is not viable in the meat sector. The greatest challenge in the online business is to ensure quality of goods and timely delivery as the lead time completely depends on the retailer, when the business model can clack this ceiling, it will succeed in operational arena.

PRODUCT DIFFERENTIATION AND PRICING

Online retailing is very dynamic and highly competitive industry. It requires heightened merchandising and marketing expertise as well as profound understanding of modern shopper's mindset. Good partnership with manufacturers, creative retailing and renewed emphasis on operating expenditure also important for e-commerce. Being aware of all these, the online meat retailers, brought uniqueness in their merchandise by creative differentiation in their product offering. Over the decades, changes in the retailing sector have changed the meat purchase behaviour of the consumers from the fresh meat to different value added products. Retailers are trying hard to increase their Stock Keeping Units further to meet the demand and convenience of the customers. The differentiated fresh meat product offered by the top 5 retailers in Indian online meat market platform with their price range are depicted in the Table 1.

Table 1: Different fresh chicken meat available through online platform with average price range

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Sl. No.	Product Name	Average Price (Rs. Per Kg.)	Max Price (Rs. Per Kg.)	Min Price (Rs. Per Kg.)
1	Whole chicken with skin	215.00	230.00	200.00
2	Whole chicken skinless	216.00	240.00	200.00
3	Chicken wings	298.25	372.50	240.00
4	Boneless breast	409.06	442.22	372.50
5	Drumstick	433.22	567.86	320.00
6	Chicken legs	402.27	456.76	361.82
7	Chicken thigh	535.11	722.22	440.00
8	Chicken liver	368.80	400.00	348.00
9	Chicken- mince	402.40	497.92	378.26

In addition to the fresh meat category, the online retailers are also focused more on the processed and semi processed meat products. The value addition will fetch higher margin. The major kinds of processed and semi processed value added meat offered by the top 5 retailers in Indian online meat market platform with their price range are depicted in the Table 2.

Most of the products are available in different packing sizes ranging from 200 gm to 1 Kg and uses vacuum packaging as it retains the freshness, decrease shrinkage and come leak proof, and consumer ready.

Table 2: Different value added meat products available through online platform with average price range

Sl. No.	Product Name	Average Price (Rs. Per Kg.)	Max Price (Rs. Per Kg.)	Min Price (Rs. Per Kg.)
1	Chicken nuggets	516.64	633.33	440.00
2	Chicken sausages	512.00	650.00	400.00
3	Seekh kabab	552.27	620.00	486.00
4	Chicken salami	481.60	550.00	380.00
5	Chicken burger patty	512.27	562.50	450.00

VALUE PROPOSITION

The primary basis for 'traditional' commodity competitiveness remains price and quality and food safety; however, with the increase in competition, it is necessary for a retailer to differentiate his product offering form other and the reason why a customer should choose his product or service instead of other companies. Thus, value proposition of a business is arguably important in the online retailing world, as it answers the questions like: who we are, what we offer, which markets do we serve, what makes us different? The promise of quality, food safety, hygiene and transparency are also important selling points for online meat retailers. Most companies highlight the freshness of their produce and the ethical protocols practiced while processing. They are able to control these aspects by building an end-to-end offering, taking care of everything from sourcing to storage and delivery especially in case of chicken. In case of sheep/goat meat, they work directly with farmers and are standardizing the processes at the farm level too. The start-ups are also working with slaughters to ensure that they follow scientific and hygienic slaughtering methods for quality meat production.

Most of the online meat retailing are concentrated in tier I and tier II cities as they target mainly working class and middle age people with the age group of 25 to 40. As most of these people prefer fresh and hygienically processed products, the retailers offer clean and hygienic meat products, chemical/preservativefree, and pre-cleaned and multiple choices of grading according the willingness of the consumers. Some of the retailers also claim that their unique cold chain technology preserves the freshness of the meat for a longer duration. Furthermore, using optimisation algorithms they predict customer order behaviour and reduce products unavailability and wastage. As simple that every business is trying to cut the operational cost so as to maximise their earnings to enjoy a sustainable competitive advantage in the market. Sorting and grouping algorithms helps to save the cost per delivery by automatically sorting and grouping orders in increasing 'order density' per driver. Most of the sellers guarantee a home delivery within 90 minutes, this will enable them to serve the customer more efficiently.

Companies use various promotional offers to connect with primary

and secondary shoppers. However, in case of meat price per unit weight has the highest influence on the ultimate purchase, hence the retailers offer various kinds of discounts from their maximum retail price offering to attract the customers.

The ability of online retailers to deliver the products within few hours of order placed by the customers has changed the landscape of meat supply chain in the country. Logistic system on the market of meat and meat products (meat products logistic system) is segmental subsystem of agro logistic system. It covers 8 stages of production of quality and safe meat products viz., feed and fodder production to resourcing, production, processing, preparation, storing, transporting, and trading. Fresh meat and meat products are highly perishable and should be stored at temperatures that prevent the growth of both spoilage and pathogenic organisms. Hence, the relevance of cold chain management in the meat supply chain is very critical for maintaining the quality and safety of meat and meat products. The cold chain should be maintained all along the distribution network without any interruption. In India, the cold chain storage market is not much developed, as it involves high capital expenditure, the online meat marketing start-ups are establishing tie-up with full-fledged cold chain logistics firms like Crystal, ColdEX etc. to overcome the issue.

Another major issue in the meat supply chain is traceability, as more than 90 % of the meat industry is unorganised, it is hard to establish the traceability systems (Lu et al. 2016). Traceability systems have a broader scope, aiming to record the product's history across the entire manufacturing process, from primary raw materials to the final consumable product. The traceability system not only enables to easily identify and trace the sources of potential animal or human health hazards and batches of high risk animals or products, but also support quality assurance processes for animals or products. However, with the emerging technologies like blockchain, Internet of Things (IoT), Artificial Intelligence (AI) the start-ups are working on these issues to record the complete physical production process and also to reduce the bullwhip effect in the meat supply chain.

TECHNICAL CHALLENGES OF ONLINE MEAT MARKETING

The challenge of delivering meat through online is to source meat from slaughterhouse/retail shops/ Stock Keeping Units and deliver within the required time limit of 1 to 2 hours to a customer. Speedy delivery is the key factor in customer satisfaction, with an average optimal time of no more than 90 minutes. A well-established delivery network with full-fledged cold storage marketing chain is a prerequisite. However, huge capital expenditure is required to establish end to end strong cold chain with sufficient storage space, merchandising/ display of products. And it is also essential to get region wise/ location wise/ store wise best supplier who practice food safety management systems like HACCP/GMP/ GHP/food safety standards while handling these products. The perishable nature of the meat dictates robust inventory handling systems that can chart and track Parent-Child-Stock Keeping Unit relationship and help to ensure faster delivery and reduce products wastage. Additionally, the eminence of online meat marketing system attracted stiff competition in the market, thus adopting a

price model which doesn't continuously fluctuates and push sales is thoroughly challenging. So now the small businesses run on lower margins and capital, and when they further reduce price, it puts them out of business. In case of well-set omni-channel delivery firms, there is still no guarantee of higher sales after the price cuts too, noting the customers are always expecting "more benefits" as they place orders (Shweta 2017). Furthermore, Indian customers have a buying habit of meat on weekends and holidays. Thus, more than 70% orders are placed on Friday, Saturday, and Sunday. The remaining days getting the order in good quantity is a challenge (Oddappz 2017). However, using modern technology tools, online marketers are able to plan inventory, understand sales trend and able to predict what is expected on which day, time and hour. Likewise, the demand for delivery and logistics staff has certainly fuelled. But the attrition is very high owing to various reasons such as like insufficient salary, poaching and absconding, inadequate training, little employee benefits, meagre opportunities for progress, health issues (long working hours, bad weather, frequent changes in work schedule and need to carry heavy bags, etc). Inadequately trained delivery staff will affect timely and flawless delivery. Retaining the customers is also a big challenge, most of the Indian online meat start-ups generates 15000-20000 orders per month with an average order value of Rs. 600 (Choudhury 2016). The technology interface to interact with the customers is either website or mobile applications. It should be user friendly and meet the expectations of the visitor once they landed on the homepage. If a site is not designed to meet the visitor's expectations, they will discontinue their visits to the website. Thus, it requires huge cost to maintain the technology interface, search engine optimisation, content development and advertisement campaigns.

CONSUMER ACCEPTANCE AND PUBLIC PERCEPTION

Consumer perception is influenced by the attitudes and perception about the attributes of products as well as how it is produced, handled or distributed (Claret et al. 2014). Similarly, in case of meat marketing, most of the Indian customers have a gut feeling that the meat they buy from these open/wet markets are fresh. Several factors including sensory properties, psychological and marketing aspects determine the important reasons underlying consumer preferences and the perception of quality of meat products (Caracciolo et al. 2016; Font-i- Furnols and Guerrero 2014). As the online marketing cannot provide any kind of sensory evaluation to the customers, the peers reviews or suggestions have greater influence on the selection of meat products. In a study conducted by Mintel (2017), overall, 69% of those surveyed said they are hesitant to buy an item, if they can't see or touch, and three of four said they like to sample a product before buying. Nearly 80 per cent of the online buyers are keen about freshness of the products procured online, and safety was the major concern for about 63%. The research conducted by Glitsch (2000) showed that in the case of meat and meat products, the place of purchase, whether butcher's shop or supermarket, is regarded by as a primary indicator, both of safety and eating quality. Price is regarded as a much important indicator. Moreover, consumers often relied on their own judgment of meat hygiene rather than accurate evidence of meat safety certification or meat origin. Their misjudgement could be due to the lack of meat safety information on labels, especially on online products. McKinsey and Company study revealed that most of the customer prefers optimal wait time of less than 60 minutes. Once sign up, 80 % of the customers never or rarely look for new platform, creating a strong winner-take-all dynamic. In such situation, the player who makes most of the customers to sign up in the shortest amount of time, reap more benefits. In terms of ready-to-eat food, the participants were primarily concerned about expiration date on the food label (Progressive Grocer Bureau 2020). Aggressive online campaigns are necessary to raise awareness about meat hygiene and safety and also counteract consumer hesitation and improve sales.

REGULATORY PATHWAYS

E-retailing in India is governed by number of Regulations and Acts. Primarily, all e-commerce companies have to comply with the Companies Act, 2013 and other applicable laws of the country. Information Technology Act, 2000 legally recognises the electronic data interchange transactions and other means of electronic communication. The companies with foreign direct investment (FDI) have to comply the norms of FDI Policy 2018 and can operate only in activities which are specifically permitted. Moreover, activities of e-commerce companies inter alia entail compliance of Shops and Establishments Act of the concerned State (Ratna 2018). Consumer Protection Act, 1986 also covers e-commerce. Further, the online meat retailers have to comply the norms and guidelines of FSSAI (FSSAI 2016; 2018). Major guidelines that the online retailers have to conform to the FSSAI Act are:

- All e-commerce establishments marketing food items or operating a food/grocery business have to register with Food Safety and Standards Authority of India (FSSAI) under the norms of Food Safety and Standards Act, 2006.
- As per the guidelines, e-commerce entity having marketplace business model i.e. providing listing/directory services to sellers/ brand owners/ product manufacturers in respect of warehousing, logistics, order fulfilment, payment selection, facilitator of delivery and other services have to ensure that the sourcing of the product should be done only from the provider who have complied all rules and regulations of FSSAI.
- In case of inventory based model of e-commerce Food Business Operators (FBO), where inventory of food products and food services is owned by the e-commerce FBO and is sold to consumers directly have to register as per the guidelines of FSSAI and must follow the rules and regulations of the Act.
- Food business operators must ensure that the food articles satisfy the requirements listed under the Act and the rules and regulations made thereunder, at all stages of production, processing, import, distribution and sale.
- Food business operators must engage trained personnel for the last-mile delivery and also undertake necessary measures to ensure the safety of food products up to the moment of delivery.
- All the e-commerce FBOs need to sign an agreement with the sellers/ brand owners/ manufacturers to the effect that

- the sellers/ brand owners/ manufacturers are compliant with the Act and the Rules and Regulations made thereunder.
- All e-commerce firms must ensure that the consumer sees a clear and readable image of the pre-packaged food/ food product and must provide an indicative image of the product on their platform so that consumers can recognize it.
- FSSAI will conduct mandatory third-party audits of supply chains of ecommerce companies that sell meat and meat products.

These regulations will go long way in shaping the way meat is domestically marketed in India as all the local bodies owned slaughterhouses and retail markets.

CONCLUSION

Online meat retailing is completely innovative means of buying preferred meat products for household consumption. In today's highly competitive retailing scenario, developing a successful and sustainable online meat retailing has become a top priority for many online meat marketing companies. It also offers a way to organize the entire meat supply chain and bringing clean, safe and hygienic meat to the customers. The perceived benefits of online meat retailing provide retailers a competitive advantage in several ways as this channel will continue to develop exponentially in the forthcoming years. With the strike of the pandemic, the adoption of online has accelerated making it more of a necessity for daily lives. Since COVID, customers increasingly preferred purchasing meat online. This was driven by the assurance of safety and hygiene, availability of various products under one umbrella, doorstep service provided by online meat providers.

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ETHICS STATEMENT: Not Applicable

REFERENCES

- Caracciolo F, Lombardi A, Verneau F, Lombardi P (2016) Beyond the use of food supplements: An empirical analysis in Italy. Italian J Food Sci 28: 15-25 Available at: https://doi.org/10.14674/1120-1770/ijfs.v454.
- Choudhury A (2016) Unorganised meat industry in India: A boon for the online meat selling start-ups to thrive. Editions. Available at: https://yourstory.com/2016/06/online-meat-selling-startups-india
- Claret A, Guerrero L, Ginés R, Grau A, Hernández MD, Aguirre E, Peleteiro JB, Fernández-Pato C, Rodríguez C (2014) Consumer beliefs regarding farmed versus wild fish. Appetite 79: 25–31
- Font-i-Furnols M, Guerrero L (2014) Consumer preference, behavior and perception about meat and meat products: An overview. Meat Sci 98: 361-371 https://doi.org/10.1016/j.

- meatsci.2014.06.025
- FSSAI (2016) India Food Report 2016: A Brief Overview
- FSSAI (2018) Notice for operationalisation of Food Safety and Standards (Licensing and Registration of Food Business) Amendment Regulations, 2018. Available at: https://fssai.gov.in/dam/jcr:9a216a62-f67c-4ba1-93e49ba1ec749ca3/Direction_License_Registration_13_12_2018.pdf
- Glitsch K (2000) Consumer perceptions of fresh meat quality: Cross-national comparison. British Food J 102 (3): 177–194
- Google and Boston Consulting Group (2020) Demystifying the Online Food Consumer: An \$8 Billion Opportunity. Avalable at: https://www.bcg.com/demystifying-the-online-food-consumer-an-8-billion-opportunity
- Lu J, Wu L, Wang S, Xu L (2016) Consumer preference and demand for traceable food attributes. British Food J 118(9): 2140-2156. https://doi.org/10.1108/BFJ-12-2015-0461
- Mintel (2017) Processed meat in India–market sizes. Available at: https://store.mintel.com/processed-meat-in-india-2017-market-sizes
- Montossi M, Font-i-Furnols M, del Campo R, San Julián G, Brito G, Sañudo C (2013) Sustainable sheep production and consumer preference trends: Compatibilities, contradictions, and unresolved dilemmas. Meat Sci 95(4): 772-89
- Oddappz (2017) The changing market and challenges for food delivery. Available at: https://www.oddappz.com/blog/info/the-changing-market-and-challenges-for-food-delivery
- Progressive Grocer Bureau (2020) How online meat delivery is changing the retailing model in India. Available at: https://www.indiaretailing.com/2020/01/10/food/food-grocery/how-online-meat-delivery-is-changing-the-retailing-model-in-india/
- Ratna B (2018) Modi government writes new rule book for Big Basket, Swiggy and Zomato. Available at: https://economictimes. indiatimes.com/news/economy/policy/ food-inspectortightens-ecommerces-safety-belt/articleshow/67280363.cms
- Redseer (2020) Online Grocery: What Brands Need To Know? Available at: https://redseer.com/reports/online-grocery-what-brands-need-to-know/
- Shweta T (2017) Tamil Nadu: Beef demand soars on e-tailing sites. Deccan Chronicle. Available at: https://www.deccanchronicle.com/nation/current-affairs/020617/tamil-nadu-beef-demand-soars-on-e-tailing-sites.html