



Research Paper

Exploring the impact of COVID-19 on the Poultry Supply Chain: A Case Study of South India

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Millions of families around the world depend on the chicken business, but during the shutdown, it declined dramatically. This study looks into how the pandemic has affected the livelihoods of different poultry supply chain stakeholders. The survey has 35 respondents, among them, thirty of them are equally distributed among consumers, suppliers, and meat shop owners, and the remaining 5 respondents pertained to veterinarians. Negative news, a reduction in the supply of poultry birds and the consumption of poultry meat, have severely damaged this industry, causing a 50% fall in business. Thus, in order to offset this unexpected decline in their company's success, these shareholders are requesting immediate financial assistance from the government. The duration of this assistance is a few months. Additionally, a program of awareness needs to be started in order to restore consumers' appetites for poultry meat and to find a long-term solution to this harm by encouraging the intake of both chilled and frozen poultry meat. Lastly, the report recommends decentralized activities to satisfy each link in this chain's requirements.

Keywords: COVID-19, meat shop owner, suppliers, veterinarians, and consumers.

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I. Introduction:

The global poultry business has been expanding steadily along with its customer base, and it is currently regarded as a significant contributor to the GDP of each country and a source of income for millions of households. There is an unequal distribution of growth between industrialized and developing nations. India, a developing nation, holds a significant position in the global poultry business. It ranks fourth in the world for broiler meat production (Sasidhar & Murari, 2015), and it is well-known for producing both meat and eggs. According to the government of India index, there is a rise in the amount of chicken meat and egg consumption accompanied by an increase in income and job prospects. 37% of the nation's total meat production and 22-27% of its supply of animal protein came from the poultry business. 1.4% of GDP is contributed by it (DLS: Department of Livestock Services, 2020). According to a Hossain study, this business employs over 8.5 million people and is regarded as the second most significant source of employment behind the apparel sector (2020).

This industry has also been beset by a number of issues, such as increased maintenance and raw material costs, unstable market prices, fiercer rivalry, and so forth. A number of previous studies show that the cost of corn and soybeans, two basic materials that are widely used in chicken feed, has been rising. This pricing would increase the investment costs and put an even greater burden on the chicken growers. Because of this, a large number of independent chicken farmers are currently looking for other sources of income. This industry suffered greatly during the shutdown. COVID-19 has caused a larger loss to the poultry business than the combined effects of swine flu, avian flu, and mad cow disease. The lack of demand for both chilled and frozen meat, which together make up only 5% of the world's total consumption of poultry meat, is a major factor in this enormous decline. Urban and educated people make up the majority of this meat's customers (Dadheech, Tripti, and Reena Vyas, 2014).

1.1. Objectives:

In order to support the complete chicken supply chain, the poultry business typically comprises of a number of stakeholders, including biologists, veterinarians, poultry farmers, retailers, owners of meat shops, customers, and so forth. Millions of households' livelihoods are also directly and indirectly supported by it. The

goal of the study is to understand how the COVID-19 destroyed these stakeholders' livelihoods and to document their vulnerable experiences during the lockdown.

II. Methodology:

Interviewees were selected through a non-random sampling process and were thereafter contacted for telephone interviews. They are represented by four groups of persons who are involved in this supply chain: vets, suppliers, customers, and proprietors of meat shops. First, the veterinarian's and suppliers' phone numbers are obtained from the poultry directory, along with customer and meat-shop owners' numbers from reliable sources. The survey covers a total of 35 respondents, five of whom are veterinarians and ten of whom are each of the remaining three categories. Every interview lasts between thirty and forty minutes, and each of these four groups has its own questionnaire. The analysis of these interviews is qualitative and involves the following steps: transcription, translation, coding, themes, sub-themes, and report drafting.

The poultry industry is the primary source of income for all of these respondents, who have between thirty and forty years of expertise in their various sectors. With the exception of consumers, who are split equally between the sexes, practically all of the respondents included in the study are men.

III. Empirical Result:

The following draft is divided into three sections: the pre-lockdown circumstances of these shareholders; their miserable Covid experience; and lastly, some policy suggestions.

3.1. Before the lockdown:

In addition to feeding thousands of households and creating jobs for a large number of people, the poultry business significantly boosts the GDP of the country. This industry typically provides a large portion of the livelihood support for these households. Meat stores used to be like this—busy, full of people, and daily sellers of hundreds of birds. Each chicken plant provided housing for two to five labourers while also ensuring the families' means of subsistence. Owners used to treasure their companies forever since they provided them with a monthly lump sum payment and made them prosperous. Despite the few obstacles they faced, they might have been easily overcome. An owner expressed his dissatisfaction in this regard, claiming that he has competition from transient stores that typically open on Sundays and close during the week while operating without permits. The establishment of these new businesses can be attributed to the enormous demand for poultry meat and the large volume of consumption that occurs only on Sundays, which in turn drives up the cost of meat. Because the salaries were determined by the worker's experience, a person with more experience often obtains a higher salary than one who has less experience or was hired recently. The pay scale was determined at between Rs. 8,000 and Rs. 12,000 per month and between Rs. 350 and Rs. 500 per day. They claim that throughout this time as well, people purposefully ate frozen or chilled meat because they all genuinely liked live poultry. Additionally, it was observed that prior to the pandemic, informed people had been consuming this frozen poultry meat.

Before this epidemic, suppliers were a notable category among the chicken supply chain's most contented stakeholders because they used to make a sizable profit and have fulfilling lives. Typically, they provide retail stores and poultry farmers with feed, feed additives, poultry equipment, growth boosters, proteins, enzymes, and so on. They employed a big number of people at the entry level with the goal of bringing on as many clients as they could in order to grow their business. They were also tasked with keeping up a cordial and pleasant relationship with clients. As a result, both freshly acquired clients and current ones remain loyal. They also began to receive orders and to keep an eye on and assess their employees' online activity. Typically, they set goals for their workers, assess their progress daily, and use this online platform to settle employee complaints.

Before COVID-19, veterinarians were the happiest individuals because they loved what they did for a living. Over the past 15 to 30 years, they have been involved in this sector, providing services to hatcheries as well as commercial, breeder, and broiler farms. In addition to assessing the birds and administering medication, they also advise poultry producers on necessary safety measures for their chicks and poultry birds. Independent and integrated veterinarians are the two primary categories into which veterinarians are divided. Whereas integrated veterinarians only work on the farms of the integrated companies they are associated with, receive a monthly salary, and are not allowed to provide their services to other farms that are not affiliated with their concerned company, independent veterinarians provide services to poultry farmers based on individual consultation.

3.2. During the lockdown period (first and second waves):

Households in the poultry industry as well as all other industries suffer complete destruction of savings and livelihoods during the lockdown period (first and second waves), which was tightly enforced in March and

April. Since most of the households in this sector became borrowers, many of them are now financially bankrupt or vulnerable. This indicates that they rely only on this money to conduct their different businesses and to survive. This virus has gradually impacted this industry. Because of the flurry of unfavourable news reports claiming a link between eating poultry meat and the quick spread of the COVID-19 virus, social media is initially seen as the starting point of this disaster.

3.2.1. Meat shop-owners:

The results show that social media—which includes Facebook, WhatsApp, and television—had a big part in the demise of the meat-shop industry. They claimed that among them, WhatsApp was the one that stood out the most. People's awareness of the link between this meat and the COVID-19 pandemic had an additional effect on the amount of this meat consumed and the rate at which poultry meat was sold. Specifically, the price of chicken meat dropped from Rs. 250 per kilogram to Rs. 5 or Rs. 10, and the number of birds sold fell from 200 per day to Rs. 30. According to a meat-shop owner, before to COVID-19, owners used to be able to support themselves and their family financially, but at this time, they were unable to cover even the costs of electricity, water, shop rent, and employee salaries. Due to specific positive cases in their community, they are not permitted to keep the shops open all day. According to a butcher shop owner, three-quarters of the business has been totally destroyed; yet, we have carried on with our operations as per the government's COVID directives. They followed the COVID guidelines, which include: using phenol to clean the stores on a regular basis; spraying bleach around the stores; making sure all consumers wear masks; and maintaining physical distance.

Over time, in an effort to encourage people to eat more chicken meat, the government and other supportive organizations came up and called a meeting at which they officially declared that there was no link between the virus and the eating of chicken flesh. Additionally, they urged people to eat it because meat is high in protein and will help stop the spread of the virus. Despite this, some people continued to abstain from eating the meat because they were afraid, they might contract the virus from eating the chicken, even if they had previously eaten the flesh. But since then, there has been a rise in demand for this meat.

Due to farmers' imposition of a moulting period, during which they ceased feeding the birds, there is a shortfall of the necessary number of poultry birds in the market as a result of this abrupt spike in consumption. Furthermore, farmers temporarily stopped doing this type of cultivation. This has an impact on the availability of birds, which are needed to meet customer demand. In addition, businesses announced a 15-day crop holiday during which they stopped providing feed, medication, and other supplies to the chicken farms. Nevertheless, a small number of customers persisted in eating this meat, which ultimately resulted in the underweight birds being consumed. But at this time, the general public's consumption of poultry meat has drastically decreased, ruining the livelihoods of those who own meat markets. Customers also followed certain safety measures, such as brining the meat in turmeric water for 15 minutes prior to cooking and adding more masala to the stew while cooking to help it resist the virus.

3.2.2. A. Supplier:

Typically, they provide poultry farms with feed, feed additives, and medications. They lost a lot of money—their business fell to 50%—and were unable to get their money back from the farmers and retail stores. Roughly 25% of workers were let go by companies because their salaries were unpaid. In addition to failing to attract new clients, they also failed to retain their existing clientele. They also neglected to deliver medications and grain to the stores and farms.

3.2.3. B. Veterinarians:

The study identified integrated and independent veterinarians as the two categories of veterinarians. In addition, they battled issues with providing for their families, dispatching services, stalled transportation infrastructure, and non-cooperation from chicken producers. Despite these challenges, they carried on providing their services via digital channels, such as Zoom meetings, WhatsApp chats, and phone conversations. Additionally, they told farmers not to panic because this virus does not fall under the category of zoonotic diseases that spread from humans to birds or vice versa. Instead, they encouraged farmers to strengthen biosecurity measures on and around their farms to protect the birds from viruses.

3.2.4. C. Loss:

The virus's breakout and the ensuing drop in the amount of chicken meat consumed by consumers caused the poultry sector to incur a massive loss of almost Rs. 4000 crores. This chain's sectors have all succumbed to the virus attack. Families whose main source of income is related to this sector suffer greatly. Migrant workers from far-off regions who worked in chicken farms have also endured great misery. They travelled to Andhra Pradesh in quest of employment from the states of West Bengal, Orissa, and Bihar.

3.3. Policy-Recommendations:

Many owners of meat markets asked for loans to be released immediately and without interest. They are concerned about unequal loan approvals, which implies that these store owners in North India are receiving loans more quickly and for a larger sum than their counterparts in South India. In order to increase profits, they asked for the introduction of a direct marketing system and the elimination of middlemen's involvement. Typically, intermediaries earn enormously from this kind of commerce. To avoid such widespread attacks, businesses and veterinarians recommended promoting the consumption of chilled or frozen meat. A significant portion of consumers believed that this chilled meat was unhealthy. The government should firmly assume responsibility for combating unfavourable news and punishing individuals who spread false information. Suppliers recommended that the government establish an upper body tasked with overseeing the supply chain's overall operations, particularly the supply and demand in the avian market. They wanted all the chain's stakeholders to be able to reach the government with a phone call.

The government should be solely responsible for covering all payroll costs for all workers in the poultry supply companies as well as other workers in this chain during this emergency. Additionally, it ought to offer a temporary tax break on medical equipment and prescription drugs. Veterinarians asked that politicians be given less of a say in decisions made at this time. These vets will be permitted to make decisions that are appropriate for this industry in such a scenario. Additionally, because the cost of these ingredients is always rising, it is suggested that the government buy maize and soybeans directly from agricultural farmers and then provide them to these poultry farmers at a reduced price. It would assist in balancing the supply and demand for feed ingredients. To reduce the expense of shipping, they asked the government to establish a local market to encourage people to buy this fowl meat locally.

IV. Conclusion:

In the nation, the chicken business offers millions of households' options for a living. Nonetheless, their means of subsistence have been drastically impacted by the pandemic and the lockdown that followed, from the top to the bottom of this supply chain. The government needs to respond quickly, give these families financial support—at least temporarily—and step up its surveillance efforts so that similar heinous and unanticipated acts won't happen again. It should be easier to access government services like loans and subsidies.

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