RESEARCH ARTICLE



Assessing protectionism and its impact from consumers' perspective: The case of Senegal's poultry import ban

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Abstract

Import ban, an extreme form of restriction prohibiting the trade of a good is implemented under different scenarios including an outbreak of a disease to prevent the spread of infection. While such a policy may have varying degrees of impact on different sectors of the domestic economy, endusers of the good in question are key to providing useful information on its success or failure. In this regard, this study was conducted to assess the impact of Senegal's poultry import ban from consumers' perspective using focus group discussions. Themes arising from the analysis of the data show that the import ban has contributed to the development of the domestic poultry sector, providing jobs for many along the poultry value chain. Furthermore, the supply of domestic chicken has witnessed a surge contributing to an overall fall in prices. Notwithstanding, the ban is neglecting the group of consumers who are driven by convenience, product diversity, and safety when purchasing chicken meat. Modernization of the sector in relation to infrastructure for processing, storage, in addition to the education and training of actors on hygiene in the meat distribution chain are crucial if the gains made by the domestic poultry industry are to be sustained.

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KEYWORDS

chicken, consumer, impact, import ban, Senegal

1 INTRODUCTION

Population growth of approximately 2.4% per year, rising incomes, and continuing urbanization is increasing the demand for food needs by the Senegalese people (Osinski & Sylla, 2019). One product that has witnessed tremendous growth in consumption is meat, attributed to a rise in the number of restaurants, fast-food businesses, and roasted meat joints (Richard et al., 2019) in urban centers in particular. Poultry imports for example increased rapidly in the early 2000s due to increasing consumer demand, falling tariff levels, and limited domestic supply. According to the Agence Nationale de la Statistique et de la Démographie (ANSD, 2005) the domestic poultry sector was characterized by weak organizational capacities **including high production costs**, poor biosecurity practices, and the lack of automated processing infrastructure that do not contribute to the quality and competitive production (Killebrew et al., 2010).

Nevertheless, the government in an attempt to fight the Avian Influenza virus in 2006 banned the importation of chicken meat in all forms into Senegal except processed poultry meat products such as nuggets and sausages, as well as hatching eggs and day-old chicks. Before this policy, imports constituted on average 34% of total chicken supply between 2003 and 2005 (Figure 1) (Zamani et al., 2021) but plunged thereafter to 1.5% in 2006, and close to 0% beyond 2010.

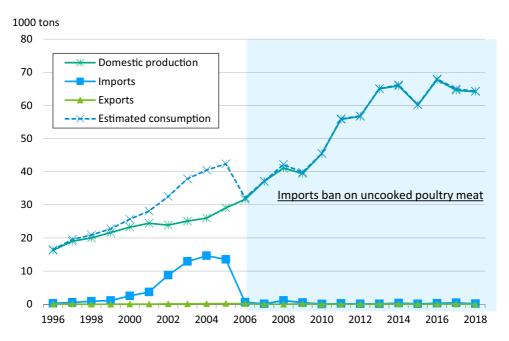


FIGURE 1 Poultry production, imports, exports, and consumption in Senegal. Source: Import and export data: UN Comtrade database (2020), Production data: FAOSTAT (2020), Consumption: based on Zamani et al. (2021)

1.1 | Meat consumption habits of Senegalese

Because Senegal borders the Atlantic Ocean, fish is the most dominant animal protein source for its citizens and accounts for up to 40% of total intake of animal protein (Quaas, et al., 2016). Besides, meat is an integral part of the traditional dishes and culinary habits, eaten at least once a week, especially on weekends by the majority of households at lunch or at dinner according to participants of the focus group discussion. Senegalese eat mutton, beef, goat, pork (for the Christian community), white meat (chicken, ostrich, turkey, rabbit, and guinea fowl), and processed products such as sausages. During traditional ceremonies and festive occasions such as Eid al-Fitr and Eid al-Adha, sheep and beef are eaten. However, on a regular basis, the most consumed meat are beef and chicken. Senegalese have typical meat-based dishes such as "YASSA" (chicken or beef with onion sauce), "MAFFE" (chicken, lamb, or beef cooked with vegetables in a tomato and peanut butter sauce), "THIÈRE" (couscous with red meat and/or chicken) usually eaten during the festival of Ashoura for Muslims, "TOUFFEE", rice with red meat, and many other meat-based dishes. As stated by a participant: "Meat is part of our local dishes, during family and religious ceremonies, we cook meat for the family and guests" (female participant, Dakar).

Aside from the traditional dishes, evolving tastes for international cuisines are increasing the consumption of fast foods, and modern dishes based on red meat and chicken. Salad for example is mostly eaten in the evenings with chicken. Generally, decisions on the choice of meat is based on price, availability, health (fat content of meat), quality (sanitary conditions), and "halal" (for Muslims). Among the animal sources of protein, fish, chicken, and beef are most preferred especially by large families because they are cheaper and more available in the market.

1.2 | A brief description of the poultry industry in Senegal

Poultry production in Senegal can be classified into two - small holder (i.e., traditional backyard) and the semi-industrial systems. The traditional backyard system is predominantly practiced in rural areas and primarily aimed at providing protein and supplemental income for rural households. In this system, indigenous local breeds of fowls are raised with flock sizes ranging between 50-100. The birds normally roam the neighborhoods in search for their own food and are also fed with left over food of the households. Live birds are usually sold out with no form of processing in the small holder system. Usually families sell fowls as and when there is a financial need of the family, the cycle of production is therefore not of importance in this system. The semi-industrial system of poultry production on the other hand is purely commercial and dominant in both peri-urban and urban areas of Senegal. Bird sizes in this system range between 500-30,000 per cycle, however, one farm located on the outskirts of the capital city Dakar can boast of about 70,000 birds per cycle. Producers focus mainly on broiler and egg production. Eggs are imported from countries such as Brazil and hatched locally. Thus, producers source for day-old chicks and feed from local companies such as SEDIMA and Eniva. The cycle of production in the commercial system is between 40-45 days. Producers slaughter, dress, and package birds for sale, however, live bird sellers dominate the market. Commercial poultry producers in Senegal face challenges including high feed and electricity costs, intermittent power outages, lack of water supply, and poor road networks connecting producers to markets. Senegal's chicken products as a result are uncompetitive on the world market. A kilogram of broiler meat for example costs about FCFA 2300 while an imported broiler will cost about FCFA 800 per kilogram. Despite the aforementioned challenges, domestic poultry production has witnessed tremendous growth since the import ban was put in place. Annual growth of 14.7% was recorded between 2005 and 2013, and 25% between 2016 and 2019 (Arnoldus et al., 2020).

1.3 | Political economy of the poultry import ban

The Common External Tariff (CET) originally foreseen in 1975 and introduced in 1999 and 2000 by Heads of States and Governments of the Economic Community of West African States (ECOWAS) led to a reduction of the tariff rate in most countries contributing to a surge in food commodity imports. Senegal in 1999 adopted the CET which was set at 20% on final consumer goods and this led to an increase in imports of food products including frozen chicken meat (mainly cut parts). Chicken imports were mainly from Europe (notably from the Netherlands and Belgium) and Brazil. The influx of cheap chicken imports threatened the domestic poultry industry, resulting in the demand for protectionist measures by poultry producers in the year 2002. In response, frozen chicken imports was banned by the government of Senegal. Nevertheless, the ban was short-lived due to pressure from importers and consumers of chicken. Luck on the other hand came the way of local producers as the government in an attempt to prevent the entry of Avian Influenza into Senegal in 2006 banned the import of poultry in all forms. Domestic production as a result of the ban plummeted supplying 100% of the chicken consumed in Senegal beyond the year 2008. Though not substantial some amount of poultry products and day-old chicks from Senegal are exported to neighboring countries such as Gambia and Guinea Bissau.

There is a growing consensus among economists that protectionist policies such as an import ban results in suboptimal resource allocation thereby leading to aggregate welfare losses (e.g., Afesorgbor & Mahadevan, 2016; Beghin et al., 2003; Smutka et al., 2016). Also, protectionist measures reduce efficiency in domestic production due to a lack of competition on the market (Smutka et al., 2016). Thus, companies may not be driven out by competitive pricing, leading to an increase in both domestic production and employment even though consumers pay higher prices or are offered lower quality goods. Furthermore, the direct impact on food security in the sanctioning country besides the economic impact on the target country is an issue of concern notably within the World Trade Organization (WTO) (Beghin et al., 2003). These notwithstanding, Kutlina-Dimitrova (2017) point out that the ultimate impact of such measures will depend on factors including the substitutability of the good in question by domestic production as well as on the demand and supply elasticities. In fact, such a policy is likely to have negative consequences for consumers, especially in the short-term. An example is a sudden rise in the price of the domestic alternate good which directly contracts consumption, considering consumers' already constrained budget. Especially, for a developing economy such as Senegal, where about 47% of the population live in poverty and have difficulty meeting basic food needs (World Food Programme, 2020) a protectionist policy has the potential to widely influence negatively the consumption of chicken meat.

Yet, so far, no study has investigated the impact of the poultry import ban on Senegalese consumers. Also, though domestic production is reported as progressing after the ban (e.g., Killebrew et al., 2010; Mankor, 2009), the important role consumers play both in the value chain and in the success of the industry is overlooked. As Kurajdova and Táborecka-Petrovicova (2015) notes, the success of a production industry depends on its ability to effectively understand consumers' needs and expectations, including the potential to effectively discover individual stimuli influencing consumers' purchase decisions. Considering this, sustaining growth in the Senegalese poultry industry will require feedbacks from key actors including consumers. However, to the best of the researchers' knowledge, no study in Senegal has paid attention to this topic.

This study is carried out with an aim of improving the understanding of the impact of the poultry import ban on consumption as well as the performance of Senegal's poultry industry from consumers' perspective. To achieve this objective, focus group discussions were conducted to capture consumers'

perception, preferences, and attributes influencing the purchase of chicken meat before and after the ban. Further, consumers' opinion on the impact of the ban was explored. The findings of this study will allow us to draw first prediction of outcomes on the demand side if the policy is to change.

2 | DATA AND METHODS

Studies aimed at assessing consumer preferences and perceptions use either one-on-one elicitation methods or a focus group discussion approach. This study used a focus group discussion approach in arriving at its objectives based on the numerous benefits attributed to its use. First, it is a cost-effective and time-saving method for reaching out to many respondents (Kitzinger, 1994; Krueger & Casey, 2000). Second, cohesion and an ambient environment are created during interactions among participants resulting in more spontaneous responses (Duggleby, 2005; Vaughn et al., 2012). Further, the exploratory nature of focus groups generates a comprehensive overview of opinions, perceptions, and explanations of several people which is not possible with in-depth or standardized interviews (Homburg & Krohmer, 2008).

In this study, four groups of chicken consumers, two for women and two for men, were purposively sampled with an aim of eliminating any form of biases in responses from the two gender groupings. Participants were recruited from homes and neighborhoods in Dakar and Thiès, major cities in Senegal with high patterns of consumption of chicken meat. The criteria used in recruiting participants were "age—above 18 years", "either a decision maker of the household or responsible for buying food for the household". The study employed the 32-item checklist for reporting qualitative research (COREQ) by Tong et al. (2007) in the data collection process. The focus group discussions were conducted between February-March 2020. The discussions were held in both French and "Wolof" (a native language). Based on the consent of participants, the discussions were audio recorded and later transcribed. In the beginning, general questions on meat consumption were asked, after which the discussions narrowed down to key questions on chicken meat consumption such as consumption habits, purchase criteria, preferences, risks, attitudes, and perceptions. In the next step, participants addressed questions regarding the differences and preferences between imported and domestic chicken. The discussions concluded with questions regarding the impact and opinion on the ban on poultry imports into Senegal. Despite the numerous benefits attributed to the use of focus groups, it comes with some limitations. For instance, one or two people may dominate the group thereby swaying the opinion of the others (Leung & Savithiri, 2009). Also, some people may not wish to publicly share their views on sensitive topics, which may be very important views that need to be included (Harrison et al., 2015). Bearing this in mind, it was announced prior to the discussions that every opinion counts to the success of the exercise, while all members were strongly encouraged to participate in the discussions. Further, it can be difficult to show actionable data from a small number of focus groups where there were widely differing views (Adams & Cox, 2008). To address this limitation, in the data analysis process, the study applied the two-step approach proposed by Wong (2008) by first analyzing the group consensus on questions asked and secondly integrating the responses of individual participants by identifying patterns, regularities, themes, differences, and similarities within a group and between groups.

3 RESULTS AND DISCUSSION

The discussions involved 38 participants from Dakar and Thiès with the majority (52.6%) being female (Table 1). The participants were traders, artisans, public servants, and retired citizens. Discussants



TABLE 1 Socio-demographic characteristics of participants

	Dakar		Thiès		Total	
Characteristic	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Gender						
Male	10	50.0	8	44.4	18	47.4
Female	10	50.0	10	55.6	20	52.6
Age (years)						
20–30	6	30.0	2	11.1	8	21.1
31–40	7	35.0	4	22.2	11	28.9
41–50	4	20.0	5	27.8	9	23.7
51-60	3	15.0	7	38.9	10	26.3
Education						
None	4	20.0	3	16.7	7	18.4
Basic (primary) education	7	35.0	5	27.8	12	31.6
Secondary education	3	15.0	5	27.8	8	21.1
Post-secondary (Diploma, Certificate)	4	20.0	2	11.1	6	15.8
University	2	10.0	3	16.7	5	13.1
Household size						
1	0	11.1	1	5.6	1	2.6
2	1	5.6	1	5.6	2	5.3
3	3	11.1	1	5.6	4	10.5
4	5	22.2	3	16.7	8	21.1
5	6	27.8	4	22.2	10	26.3
6	2	11.1	2	11.1	4	10.5
7	2	11.1	4	22.2	6	15.8
8	1	0.0	2	11.1	3	7.9

Source: Own compilations.

were in the age ranging between 20 and 60 years which falls within the age range of majority (55%) of Senegal's population, 15–64 years. More women (55.6%) were involved in the discussions and compare with the male (49.6%) to female population of Senegal, in a gender ratio of 0.98 male/female. Participants with basic (primary) level education (31.3%) dominated the discussions.

3.1 | Consumption of chicken meat in Senegal

As indicated by the participants, chicken is the most widely consumed poultry meat in Senegal because of its popularity and its fairly affordable price compared to other types of poultry such as duck and guinea fowl. Preference for chicken parts varies with consumers, however, every part: breast, wings, neck, feet, back, etc., is eaten. A participant expressed: "I eat every part of the chicken, including the bones" (female participant, Thiès). Beyond the year 2006, all chicken products consumed in Senegal in the exception for processed ones such as sausages, are domestically produced. Though unsubstantiated,

participants mentioned that there is nonetheless some imported chicken (particularly thighs) smuggled into the country via neighboring Mauritania and Gambia and sold mainly on the markets of towns and villages bordering these countries, captured in statements such as "People still consume imported chicken, especially thighs that enter the country by fraud from Mauritania or Gambia (male participant, Thiès) and "Fraud is used to bring in imported chicken from Mauritania and Gambia by land. The chicken is put in buckets instead of paper cartons to avoid the attention of customs officials" (Female participant, Dakar). For some households, chicken is frequently eaten, at least four times a week, while for other households it is eaten on average once a week, notably at dinner on Saturdays. This is illustrated with statements such as "With chicken, we consume it very frequently depending on one's purse. We no longer devote a particular day for eating it" (female participant, Thiès) and "We eat chicken the most because we can get a lot of it with less money" (female participant, Dakar). Comparatively, chicken is cheaper than other meat products in Senegal. A kilogram of dressed broiler costs FCFA 2300 which is cheaper than a kilogram of beef and mutton, FCFA 2500 and 6000, respectively. However, in the event of an outbreak of "Avian Influenza virus" (bird flu), consumers put their health first by avoiding chicken meat, replacing it with fish or red meat (beef, mutton, chevon, etc.). The quantities eaten vary depending on the family size and purchasing power of each household, but on average between 1.5 and 2 kg of chicken is consumed per meal according to the participants.

3.2 | Consumer perception of imported and domestic chicken

Generally, chicken is perceived as having a high social value in Senegal and often served to guests, a participant stated: "If you have guests, it is recommended to prepare chicken" (female participant, Dakar). According to the discussants, it is also seen as meat that can be easily shared by large family members. In addition to the aforementioned attributes, chicken meat has a shorter cooking time, is light and easily digestible: "Chicken meat is light, succulent and easy to digest" (female participant, Thiès). It is seen as healthier compared to red meat and recommended by health professionals for the aged especially at night because of the ease of digestion.

3.2.1 | Product form, price, and sale points

Chicken imported into the country before the ban were mostly in cut portions, packaged in cartons, and frozen with labels providing information such as the origin of the product and expiry dates according to participants. However, domestic chicken is sold mostly as live or in a whole dressed form (fresh or frozen). Imported chicken could also be distinguished from domestic chicken by the sizes (larger than that produced domestically) exemplified in the following statement: "Before the ban, I recognized imported chicken by its large size and its rather strong smell" (Female participant, Dakar). According to the discussants, the price of domestic chicken was uncompetitive with those of imported products which were much lower. Before the ban on imports a kilogram of imported chicken was sold at FCFA 400 (Gning, 2004) while domestic chicken went for FCFA 3000 but currently, one can get a whole chicken at an affordable price, illustrated in these two statements: "Imported chicken was cheaper and we could eat as much as we wanted" (female participant, Dakar) and "We think that chicken is cheaper now than before the ban on imports" (male participant, Thiès), "With 3000FCFA you can have a whole chicken (male participant, Dakar). Price of domestic chicken at FCFA 3000 after 14 years of import ban shows a positive impact of the ban on domestic prices. From the standpoint of other participants, though the supply of domestic chicken meat is high on the market, it is

inaccessible to people who cannot afford to buy chicken in its "whole" state because further processing into cut parts (e.g., thighs, wings, breast, etc.) is very low.

Imported chicken were sold mainly in cold stores located in open markets by wholesalers and retailers across the country but currently, domestic chicken is sold in the neighborhoods, on farms by producers, on the streets, in open market stalls, in supermarkets, etc. A participant has this to say: "There are many people selling chicken now. I prefer to buy it live from the neighbour because it's safer" (female participant, Thiès). The competitiveness of the industry after the ban accounts for the diverse sale points compared to the era before the ban on imports.

3.2.2 | Product freshness and taste

Freshness is an attribute highly associated with the consumption of domestic chicken, differing in taste (i.e., tastier) when compared to imported chicken, captured in the following statement: "tastes differ and domestic chicken tastes better because it is fresher" (male participant, Thiès). From the discussants' view point, imported chicken is less tasty. The freshness and taste are lost due to the long period of shipment and storage, resulting in a strong pungent smell of the meat, easily noticeable both in its raw and cooked states, captured in the following statement: "imported products were stored for long periods of time, with some even exceeding their expiry dates" (female participant, Thiès).

3.2.3 | Quality, risk, and healthfulness

Assessment of meat quality can vary across individuals, societies, and cultures (Henchion et al., 2014) because quality is a broad and subjective notion based on different attributes such as safety, convenience, origin, and nutritional content, that a consumer attaches to a product (Lacaze et al., 2009). Participants in the discussions perceived imported chicken before the ban to be of very low quality in comparison with domestic chicken. The former's low-quality rating originates from the long periods of storage including shipment. According to the participants, domestic chicken has a higher quality, because of the assurance of its origin, the conditions under which the fowls are raised, and its freshness, though product safety in some instances are questionable. This is illustrated in the following statement: "We now eat more quality chickens after the ban because we are sure of its origin" (male participant, Thiès).

The health aspect of chicken was primarily related to "quality" by participants, and domestic chicken is perceived as healthier when compared to imported chicken. First, the offensive smell and long periods of storage of imported chicken, which in most cases exceeded the expiry dates renders imported chicken unhealthy, captured in the following statements: "Imported chicken had a strong foul smell that can be easily noticed" (male participant, Thiès), "I buy domestic chicken because it's healthy" (male participant, Dakar) and "Local chicken is healthier" (male participant, Dakar). Second, consumers expressed doubt about imported chicken in relation to the conditions under which they are raised. It is rumored that chickens produced in the exporting countries are injected with growth hormones and fed artificial feeds that make the fowls grow bigger within short periods of time compared to what is produced domestically. The sizes of the imported chicken thighs for instance were too big and looked scary compared to the size of domestically raised chicken. This according to participants is harmful to human health and unfit for consumption. The comments include: "I think chicken meat is now safer because I know what I eat. With imported chickens, we did not know the conditions under which they were raised and marketed in Senegal" (female participant, Dakar) and "Domestic chicken is safer from a human health perspective but imported chicken was more affordable and more accessible" (female participant, Thiès). Nevertheless, other participants are concerned about the

lack of organization in the domestic poultry industry, which poses greater risks to both human and food safety. According to these participants, many people currently raise chickens in their homes, and hygiene and prophylaxis measures are inadequate, posing health risks to humans in the event of an outbreak of zoonotic diseases. Also, because there are no forms of regulation and monitoring of activities in the industry, the conditions under which slaughtering, processing, and storage of chicken are done are largely below the standards required. This can possibly lead to microbial contamination and to food poisoning. As noted by participants, safety to a large extent is lacking in the domestic poultry industry. In particular, dressed chicken sold in open market stalls and in neighborhoods are displayed on tables without cooling units, attracting flies and pathogens, nonetheless, live chicken bought from farms are considered as safe. Also, chicken sold in the supermarkets are perceived as safe because the products are well packaged, kept in freezers, and labeled with expiry dates, which are referred to before purchase, a participant acclaimed: "There are supermarkets like AUCHAN which are clean places" (male participant, Dakar).

3.3 | Consumer preferences and purchase criteria

Compared to imported chicken, participants expressed a strong preference for domestic chicken because it is fresher, tastier, healthier, of higher quality, and are assured of the conditions under which fowls are raised domestically. A participant has this to say: "I prefer domestic chicken because it's healthy and tastes good" (male participant, Dakar). Some declared that they prefer live to processed fowl, based on the additional assurance it gives on quality and safety. For others, preference for live chicken is based on religious reasons, to be sure of the slaughtering conditions, "Halal" (an important principle for Muslim consumers), captured in the following statement: "If you know the conditions under which the animal is killed and are not in accordance with the Muslim religion, the meat will not be edible for you" (male participant, Thiès). Moreover, as indicated by some participants, some farmers or traders process already dead and diseased birds for sale, which reinforces their preference for live chicken. However, others showed a strong preference for processed chicken, explaining that it is more convenient and time-saving. Chicken thigh from the discussions emerged as the most preferred part with participants stating that it is fleshy. Though breast is the fleshiest part of the chicken, it is more expensive compared to the other parts or to the whole chicken and is also not commonly found on the market, therefore, was not mentioned as the most preferred part. A kilogram of chicken breast cost FCFA 4000 while chicken thighs go for FCFA 2300.

Physical state of chicken (live or dressed), price, and "Halal" are the extrinsic attributes, while taste, quality, freshness, and healthfulness constitute the intrinsic cues that inform consumers to buy domestic chicken. This is exemplified in the following statements: "I buy chicken because it tastes good" (male participant, Dakar) and "Chicken is healthy, easy to eat and digest, and is affordable" (male participant, Dakar). In contrast, the purchase of imported chicken before the ban was motivated by its availability and lower prices against those of domestic chicken: "Imported chicken were more accessible because they were the most available and affordable" (female participant, Thiès).

3.4 | Impact of the import ban

3.4.1 Availability of chicken meat before and after the import ban

Imported chicken as perceived by participants prior to the ban constituted a substantial volume of national supply but plunged after the implementation of the ban and is no more on the Senegalese market. Two divergent viewpoints emerged on participants' opinion on the impact of the ban on the "availability of chicken meat" in Senegal. From one stance, chicken was more available before the ban on imports because currently during religious events such as Eid Al-Fitr and Korité, it becomes scarce while prices go up. From the other stance, chicken meat is now more available and there are many sale points, making it more accessible than before the ban due to the support of the government to the sector, as remarked: "Chicken is still available after the ban because the government of Senegal has put in place an extended policy for chicken farming". In our neighborhood, some women have been trained on this activity" (female participant, Dakar) and "We think that there is more chicken in Senegal after the ban because there are many young men and women who are active in broiler production" (female participant, Dakar).

3.4.2 Diversity in chicken products before and after the ban

Different viewpoints on diversity in products emerged in the discussions. Some participants stated that imported chicken was sold mainly in cut parts, however, there was less diversification as chicken thighs dominated the other parts, captured in one of the statements: "Before the ban, only chicken thighs were eaten and rarely the other parts of the chicken" (female participant, Dakar). These cuts were sold in cartons as well as retailed in smaller portions. Currently, domestic chicken is either sold live or "whole dressed." While consumers now have the opportunity to eat all parts of the chicken meat, they must, however, buy the whole chicken in most cases, a consumer has this to say: "After the ban, we have more chicken on the market with all the parts" (Female participant, Thiès). Other participants who prefer to eat only specific parts of the chicken such as thighs or wings are of the view that there is less diversity now than before the ban, as mentioned: "Now it is difficult to find chicken in different parts, the whole chicken is more numerous" (Female participant, Thiès).

3.4.3 | Opinion on the import ban

The ban on imports is seen as a good protectionist policy leading to the development of national production and the creation of employment for young people, as indicated in the following statements: "The ban was a relief because it allowed the domestic poultry market to develop" (male participant, Thiès) and "This measure has allowed the promotion of consumption of domestic chicken" (female participant, Dakar). The participants believe that eating domestic chicken is healthier as imported chicken is seen as harmful to human health. A section of the participants expressed satisfaction with the ban, urging the government to maintain this policy, illustrated in these two statements: "From a health perspective, we are eating safer chickens after the ban" (female participant, Dakar) and "We believe that the ban should not be lifted for economic and health reasons" (female participant, Thiès). Others are concerned that the government needs to support free trade and refrain from imposing regulations that restrict the free flow of products between nations: "The ban should continue but our concern is: how can we escape the laws and rules of international trade? It is not fair because others also buy products that are exported from our country (male participant, Thiès). Yet, a few of the participants are of the view that the ban is impacting negatively on low-income households who no longer have the opportunity to buy chicken in smaller quantities. For this reason, they opined that the ban should be lifted so consumers will have a window of choice.

According to participants, though progress is witnessed in domestic production, further support is expected from the government to producers in the form of subsidies on inputs. Sound credit schemes

that will encourage producers and other individuals to invest in infrastructure for processing, packaging, and storage are also required. A participant noted: *Production is going well and self-sufficiency in chicken in Senegal can be achieved. However, the sector is not yet professionalized, and efforts still need to be made in this direction (male participant, Dakar)*. Also, producers should be well organized in an association that makes it easy to reach out to them for technical and training services provision.

4 | DISCUSSION

Senegalese perceive domestic chicken meat as fresher, tastier, of a higher quality, and healthier compared to imported chicken, therefore, strongly influencing their preference. Imported chicken, moreover, is seen as more convenient, easily accessible, safer, and of lower quality compared to domestic chicken. Similar results were found by similar qualitative studies including that of Asante-addo and Weible (2019) and Kennedy et al. (2004). As reiterated in literature by Malone and Lusk (2018), Smith (2007), and Fishburn (1970), preferences strongly correlate with consumer choice and is confirmed by empirical studies such as that of Van Wezemael et al. (2010) and Kennedy et al. (2004) both employing qualitative approaches. In this study, moreover, the strong preference for domestic chicken expressed by consumers before the ban did not strongly influence its purchase. For them, price and convenience played the most important role in the decision-making process, favoring the choice for imported chicken to a large extent. This shows that though perceptions and preferences contribute to the final decision-making process of consumers, they are not exclusively the ultimate factors in consumer purchase decisions. Consumers, particulary, those in poorer economies in most cases align their choices to their disposable incomes instead. Awono Bessa et al. (2008) also found a similar result in Cameroon where consumers showed a strong preference for domestic chicken but often consume imported frozen chicken cuts because they are cheaper and easily accessible especially by those households with low purchasing power.

The relatively low prices of imported chicken compared to the prices of domestic chicken meat is due on one hand to high efficiencies and comparative advantages such as lower costs of production in the exporting countries (Europe, United States, and Brazil) and on the other hand to the differing preferences across countries. Expanding on the latter, for example, in Europe, chicken breast is most preferred by consumers and is the starting point for setting prices. The remaining parts such as thighs, wings, and backs are less demanded and thus often exported to third countries (Thies et al., 2019). Therefore, the choice of this consumer segment that is very price-sensitive and who are driven by the convenience of chicken cuts has been limited after the ban.

Consumption of chicken fell in the short-term after the ban on imports was in place and recovered afterward with a strong increase for around six years (Killebrew et al., 2010; see also Figure 1). Currently, in absolute terms, chicken meat is more available compared to the era before the ban and confirmed by participants in the discussions. From a demand-side perspective, the following aspects contributed to this development: first, among the different types of meat, chicken is a relatively cheap animal protein source and thus, more popular than beef or sheep in terms of consumption on a regular basis. Second, the emerging trend in consumer consciousness for healthy foods because chicken is considered as lean, healthy, and easily digestible. Third, lower prices of domestic chicken products, stemming from an increase in supply due to competition among domestic poultry producers. Additionally, domestic chicken meat is perceived as more affordable compared to the era before the ban and seen as the cheapest meat in the country. The ban on imports is hence considered a "blessing in disguise" by consumers through its contribution to both economic and social development of Senegal, providing jobs for many particularly the youth who are responding to the economic incentives from production and marketing.

Regardless of the gains in domestic production, there are still issues with processing, packaging, storage, safety, and marketing of chicken meat in Senegal. The manual processing and lack of cooling units of vehicles transporting processed chicken to venues for marketing are a source of concern. Also, the display of fresh meat on bare tables in open markets potentially has grave consequences for human health. According to Henchion et al. (2014) point-of-purchase constitutes a remarkable communication opportunity where important quality cues can be leveraged to support inferences regarding quality. However, majority of the consumers in this study associate quality only with fresh, tasty, hormone-free and antibiotic-free chicken, while linking risk and safety to general health concerns. Considering the highly perishable state of fresh chicken and the length of time it is displayed on bare tables, and the unhygienic environments in which marketing takes place, domestic chicken falls short of the standards of quality.

On one hand, the government is strongly urged to maintain the import ban based on the positive effects on the domestic economy, while on the other hand, it is seen as a policy that restricts free trade. Notwithstanding, the low level of processing of domestic chicken into parts excludes low-income households putting a section of consumers in a dilemma concerning the policy. Governments can assume that those consumers who currently strongly prefer domestic chicken would continue to consume it even if the ban is lifted. Moreover, if the ban is lifted, more households could access chicken meat. Also, for those households currently consuming domestic chicken, substitution effects are not completely impossible since price is a major factor influencing purchase decisions by most households. Nevertheless, to a large extent, the lack of confidence in imported chicken meat leads to consumer ethnocentrism which may influence negative attitudes and purchase intentions should the ban be lifted.

Yet, it is salient to note that prolonging the ban can have long term consequences for chicken consumption in Senegal due to the lack of competition from imported chicken products. Domestic producers often keep prices of goods low in order to attract more customers, only to become 'sellers' in future with monopoly control over prices which can limit the purchase of the good in question. To avoid this, the government of Senegal must provide more incentives and support to the industry.

Moreover, poultry farming can lead to adverse environmental effects which should not be ignored if the ban goes longer. Poor management of manure and litter can breed flies and insects that carry pathogens and diseases. Air pollution from dust and odor can also pose serious health threats to inhabitants close to poultry farms. In addition, intensive poultry production is associated with greenhouse gas emissions, acidification and eutrophication.

The findings of this study should be interpreted considering its limitations. First, participants were recruited in Dakar and Thiès. Therefore, these results can only be transferred with limitations to consumers who live in other parts of Senegal, especially in rural areas. Second, the use of focus groups is a qualitative method of exploring and understanding different attitudes, perceptions, behaviors, and habits, thus the findings cannot be quantified nor generalized. However, findings of this qualitative study could serve as a good basis for developing a quantitative survey as well as aid in the interpretation of results arising out of a quantitative approach. Future researchers should consider quantifying the impact of the ban on jobs and incomes of actors in the value chain.

5 | CONCLUSIONS

This study used focus groups to gain an in-depth understanding of the impact of the poultry import ban in Senegal from consumers' perspective. Results from the four focus group discussions in Dakar and Thiès provide insights into consumers' perception of both imported and domestic chicken meat, their preferences, purchase criteria, as well as their opinion on the consequences of the ban on the domestic economy and on consumption of chicken meat. Based on the results, some conclusions are drawn. First, Senegalese consumers have a positive attitude toward domestic chicken meat, exhibiting a strong preference for it even before the import ban was implemented. Second, from consumers' perspective, the ban has contributed to developing the domestic poultry production sector by providing jobs for many including the youth, resulting in an increased supply and patronage. Nevertheless, chicken meat available on the Senegalese markets are mostly whole-dressed rendering it less convenient compared to imported cuts, and inaccessible to households with low purchasing power as well as restricting some consumers in their freedom of choice. Third, notwithstanding the gains, safety issues exist, especially with storage and marketing of processed domestic chicken.

Modernization and improvement of infrastructure and activities along the value chain, in particular at the stages of processing, packaging, transportation, and marketing are essential. Also, education and training are required for actors on hygiene in the meat distribution chain.

Should the ban be lifted, this study indicates that those consumers who currently strongly prefer domestic products would continue to consume it, while more households could access chicken meat in general. However, substitution effects are not completely impossible since price is a major reason in the purchase-decisions of Senegalese.

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