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New Policy Opens Trade with India for Pork Producers in the U.S.

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NEW POLICY OPENS TRADE WITH INDIA FOR PORK PRODUCERS IN THE U.S.

A Thesis Submitted
in Partial Fulfillment
of the Requirements for the Designation
University Honors with Distinction

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This Study by: Morgan Aitchison

Entitled: New Policy Opens Trade with India for Pork Producers in the U.S.

has been approved as meeting the thesis or project requirements for the Designation University Honors with Distinction.

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Introduction

International trade is critical in maintaining a country's prosperity. Trade between countries fuels the economy for both parties, creates jobs, and raises the standard of living. This statement comes from the Office of the United States Trade Representative (USTR). A major development of USTR's portfolio is the progress in trade with India. In November of 2021, the United States of America and the country of India agreed on a long-awaited Trade Policy concerning numerous economic topics. Within the policy released by the USTR were discussions and agreements over agriculture, non-agriculture goods, services, investment, and intellectual property. The topics included a wide range of food products, including cherries, pomegranates, animal feed, and alfalfa for the United States to export to India. The focus of this research was to be on the agricultural products listed in this agreement, more specifically pork products. These agreements will give economic benefit to both countries, for the countries themselves and the working citizens within. The reduction in tariffs and trading costs will help trade become more appealing for both countries. However, the level of demand for these products in India is currently unknown. There are already a few known dispositions against meat products in this country, for a number of different reasons, but the changing agreements may make demand change for some consumers. With the changing demand, producers in the United States have the chance to participate in the agreement and contribute to both economies. The purpose of this research and thesis was to discover how the Trade Agreement will shift consumers' views about pig products in India, and if there will be any benefits that arise from this trade.

The start to this project occurred when Chris Schrage, a professor at the University of Northern Iowa in the Department of Marketing, introduced the Trade Agreement. A Trade Agreement between two countries states terms between them that help specify taxes and tariffs,

as well as determine which products can be traded. Even though trade between the United States and India has been established for other products, this new agreement mentions a product that is known in Indian culture to be taboo: pork. The Trade Agreement written and released was a starting point to determine how the United States, more specifically Iowa, will succeed in the market to export. A review of any barriers, dispositions, or challenges is necessary. Even with these factors, there has been reason to believe, due to an increase in the standard of living around the world, that there is a trend of adding more protein to meals and a change in overall diets in India. “The Human Development Index in 2020” for India, published online by the *KW Group*, corresponds with this fact, stating: “The increase in HDI indicates better living conditions by average citizens in India and consequently demand for housing and other amenities has been increasing due to increase in purchasing power of people and the per Capita Income has increased substantially.” The research being conducted for this thesis will provide some indication as to how much demand is changing with the new level of standard of living, what factors are or are not influencing these changes, and what benefits will occur for consumers and producers in both countries.

It is important to note early on that we were able to visit the country of India. Chris Schrage was able to connect with a colleague that teaches at Central University of Haryana in Mahendragarh, India. The ability to travel to the target market in India gave a proportional advantage to the research, allowing for face-to-face interactions with potential consumers. Now that supply chain and reduction of tariffs and other fees may make it easier to obtain pork in India, there could be a reaction from consumers as they learn more about the nutritional aspects of the product to incorporate pork into their menus. Consequently, the local population will have

a chance to expand their diets and learn more about these products to potentially add into their own lives.

Along with restaurants, a second focus of consumers was that of culinary schools and high-end institutions, like hotels. According to the India Brand Equity Foundation, India is ranked tenth out of one hundred and eighty-five countries in the tourism market. The number of tourists visiting are also expected to rise to thirty billion by the year 2028. With this growth in the tourism industry in India, lots of hotels for all income levels have developed in major cities (IBEF, 2022). The visits to culinary schools and hotels aim to share the nutritional value of pork products, recipes, and alternative uses of pork. Culinary students would be a more specific target since they are in the learning stage, developing their skills, and can be introduced to this product early while demand is still growing.

The main research targets are the groups described before, and any current or potential consumers for pork products. There is also a deeper focus on younger generations with these groups. Similar to the trends across the world, it is expected for younger consumers to be more open to these products. In deciding how demand is changing within these areas, the reasons behind those fluctuations need to be discussed. Therefore, consumers are asked to share the reasons behind their decision to either consume or not consume pork. Between those, the most important part is going to come from consumers that do not eat pork now. If the reasons they are disposed against pork are shared, it can help producers decide the best way to enter this market and who their target will be. The significance of this project will appeal to producers in Iowa, both small community farmers and organizations like the Iowa Pork Producers. In India, the significance is for consumers to get their meat products from a more hygienic and reliable source

for individuals and facilities. Additionally, both sides will gain knowledge about international trade and will learn just how important these agricultural products are around the world.

Literature Review

The information that exists on this topic now is vague and slim. In conducting the literature review for this topic, there were multiple factors that were seen as important for this research. A review of meat used in the human diet overall is started first, to show how important meat products are. Then there is a look into what the current consumption is like in India regarding meat. It is found that meat consumption tends to correlate with standard of living, which is also discussed in this literature review. Next, a study of an Indian blog shows what the consumers' opinions are on pork products, which gives a little more insight into the topic than if only statistics were being used. After this, an economic outlook states what meat consumption is going to be like in the future, and how producers will be able to match that demand. Another review, which was introduced to us during the trip, was the aspect of Halal Laws and how that affects meat consumption in India. To conclude the literature review, the barriers that producers may face are listed and discussed. A literature review helps us as the researchers understand what information is already available on the topic and how it can be integrated with our own research.

Meat in the Human Diet

It is known, especially in the United States, that meat is an integral component of the human diet. It is high in valuable proteins, vitamins, and fats (Devi et. al., 2014). The World Economic Forum stated in an article in May of 2020 called "Future of Consumption: Which countries eat the most meat", that the country with the highest meat consumption is the United States, followed by Australia. Among the countries with the lowest meat consumption was India. Meat consumption is not uncommon in countries other than the United States, but the Trade

Policy is focused on a country with one of the lowest meat consumption rates. This is because India culture, tradition, and taboos have steered away consumers from eating certain types of meat, including beef and pork. Devi (2014) showed that even with these factors, meat consumption has risen dramatically due to increased urbanization within India and the tendency for citizens to flock to growing cities. In larger cities, meat consumption also tends to increase. Meat consumption is estimated to continue along the same path of growth, with consumption being seventy-two percent higher than the year 2000 once the year 2030 is reached (Devi et al., 2014). These findings show that the consumption rate we see now is not expected to slow or stop. This gives a chance for more countries and producers to collaborate in these types of trades and grow the economies of numerous countries.

Current Consumption in India

Even though there are signs of growth in India, the Pew Research Center states that eight in ten Indians currently limit meat in their diets, specifically beef and pork. Much of the population in India are Hindus and Muslims, who traditionally praise vegetarianism in their lives. With a population of mostly vegetarians, the growing interest in meat consumption would expectantly cause backlash with traditionalists. However, it was calculated that only thirty-nine percent of Indian adults consider themselves fully vegetarian (Corichi, 2022). This is why the factors preventing consumers from consuming pork are important to investigate. There are some factors, like religion, that are unlikely to be changed. However, if there are other barriers in the way, producers could work to reduce those challenges.

Standard of Living

Another advantage that comes from this trade involves the decreasing demand in the United States. Surprisingly, in the recent months of 2022, Western markets have shown a

decrease in demand for pork and other meat products, primarily due to high inflation affecting the United States. During times of high inflation, consumers within these markets tend to cut out these higher priced items and find cheaper alternatives. *The National News* website published in September 2022 states in an article “Why meat is becoming more expensive” consumers’ money “does not go as far as it used to” and that animal products have experienced some of the fastest price increases. The situation in India is quite the opposite. The average citizen in India is hitting the largest level of income seen in the country. India has Asia’s third largest economy, and now has the highest population in the world. With growing income, consumers can afford higher priced items, like meat, which used to be considered a “luxury.” The current meats consumed in India, where available, are chicken and mutton (which the United States knows as goat). These insights came into view when a large conglomerate corporation, Nestlé, started investing in India to build factories and research centers. A United States business news source, called Mint, reported on their findings around these investments. With the economy steadily growing, the company (Nestlé) received a higher demand for their products (Tandon, 2022).

The findings Mint reported on were not surprising. In most of the world, it has been confirmed by studies that when residents have a higher standard of living, their overall consumption of meat products grows. China is a perfect example. More specifically, their meat consumption has grown by almost three times the amount from 1990 to 2020. The reason for this growth is the increasing amount of gross domestic product per capita. In China’s case, their GDP per capita went from \$1,424 in 1990 to \$14,244 in 2017 (Ritchie et al., 2017). This example confirms that the growth being seen in India will ultimately lead to increasing amounts of meat consumption. It will also help producers gauge how beneficial the trade will be and if they are willing to take on the challenge.

Consumers' Opinions

There are lots of sources that will show statistics about the growth in demand for these products in India, but it is also important for a topic like this to also review opinions of consumers within the target market. Even before the Trade Policy was issued, a small group of consumers in India made their love and interest in pork products known. Scroll Magazine, a popular cultural magazine in India, introduces “Porkaholics.” Even though pork eaters have always been a minority in India, the accessibility to social media has played a part in the rising popularity of using and consuming pork. The individuals within this group have the chance to share skills and recipes when it comes to this product. To them, the idea of using pork is “luxurious and exciting.” This article and the opinions within gave confirmation that there was indeed current demand in India for pork (Chatterjee, 2018).

Beginning the research, it was known that religion would be the biggest barrier on this topic. Income was going to be a close second. However, there was another disposition against pig products that was not expected. In India, it is a wide belief that the animal itself was an “impure” and dirty animal. It was observed firsthand that pigs in India usually roamed the streets, eating trash, and did not belong to an actual farm or residence. As a consumer, it would not be smart to pick up one of these pigs from the streets and take it home to cook. A supply chain manager of a company called Meatrix in India, who does work with pork currently, says that there are pig pens in the area, but they are small, cramped, and the pigs are usually fed hotel leftovers. Overall, the people of India we were in contact with were not aware of the quality of meats that could be provided to them. Iowa producers provide lean, hygienic, and fresh meats. Indian consumers did not know that they put lots of research and work into ensuring that the pigs are given nutritionally balanced feed, clean housing, and pork itself is no longer very fatty.

Resistance can be handled by educating the consumers in India of the United States' and Iowa's quality of meat to possibly increase demand even more and make sure consumers know what they are eating and paying for. During the trip, we recognized that a lot of consumers did not know about pork products. In providing this education and information, they may feel more inclined to try these new products.

Halal Laws

Another observation that came about during the visit to India was the concept of Halal Laws. A Halal Law means that an animal must be butchered by the Halal process to be put into the supply. Halal Laws are tied to religion, to ensure that if meat is being consumed, it is done so in a humane way. Halal butchering consists of draining the blood from the animal, and the other form of butchering is called Jhatka, which is the instant severing of the animal's head. Jhatka is usually seen as more humane, but Halal has always been tied to religion and had these laws created specifically for this religious aspect. The type of butchering may be a deeper area of research into how countries can trade with each other efficiently, considering these types of religious differences.

Analysis of Economic Factors

The Organization for Economic Cooperation and Development (OECD) helps stimulate economic progress and world trade and was a main source of the literature review. The OECD Agricultural Outlook for the years 2022-2031 summarized the growth in meat consumption and reiterated that high income countries are expected to have growing demand. Part of this is because the current population is more willing to change diets and allow different sources of protein. Globally, pork will have a seventeen percent growth in availability by 2031 (OECD 2022b). The increase in availability, with pig counts climbing to one billion heads around the

world, shows that any demand for pork will be met and exceeded. With the United States being in the top five meat producing countries, and Iowa being the number one state, lots of importers will look to them to fulfill demand. Exports of meat out of the United States are expected to increase by forty percent throughout the dates of this OECD report (OECD 2022a). Given the expected increase in demand, the United States, as one of the top meat producing countries, is going to have to step up its game to supply India and many more countries with pork products.

Overcoming Barriers

If producers can identify and overcome barriers, the benefits from exporting their products at a higher rate will reach numerous people. In starting this trade, a new distribution system will have to be created for pork products, since meats need higher standards of quality and distribution. With the distance between India and the United States being farther than India's current suppliers, which was determined to be Belgium and Germany from interactions with restaurateurs, it could be a challenge to get meat products to that location. Luckily, the new trade is going to create lots of jobs for citizens in both countries, and the supply chain issues in the United States are getting resolved after being affected by COVID-19. A new Trade Policy will increase the number of supply chain jobs available, and the Harvard Business Review says that the United States supply chain industry makes up thirty-seven percent of all employment, which adds up to about forty four million people being employed in this industry (Delgado et al., 2018). The supply chain industry is rapidly growing in India as well. The "logistics" sector in India was reported to have over one hundred billion dollars of value in 2020. With the building of more warehouses and the population growth in India, the distribution needed would not have a difficult time finding individuals to step up and take on this new market (Agarwal, 2023).

Although the supply chain and distribution system can be difficult to create or rearrange, this amount of growth in the industry is an advantage to producers wanting to increase trade.

Research Questions

After reviewing existing research on this topic, the main research questions were created to help the project move forward. The main information that was needed is how the demand for pork has changed within India since the Trade Policy was announced, and what is expected for that demand in the future. As mentioned before, there are some known dispositions against pork in these areas. Furthermore, the consumers are asked to determine specific reasons as to why pork may not be consumed. The answers to this question will help producers decide which factor is going to be most important to overcome, for those that can be changed. The factors include religion, income, diet, age, region, and a couple of others that will be discussed when the surveys are introduced in this paper.

After that major question is introduced, consumers are also going to be asked what information or items they need to make decisions on their meat consumption and willingness to trade with the United States. Pork products have the potential to bring new flavors and recipes to a consumers' life, but they may not be aware of this yet. The current meats consumed in India, where available, are chicken and mutton (which the United States knows as goat). Even in fast food chains, those two meats are the most commonly served, if at all. McDonald's in India serves a majority of vegetable burgers with some chicken options. The consumer's lack of options may prevent them from knowing the benefits of pork products. Therefore, another important question they are asked relates to what information is needed to make decisions and how producers can provide that for them.

Two last areas of research were about the Halal Laws in India, and whether the consumers know of the alternative uses for pig products that were mentioned before. First, the inquiry about Halal Laws arose during the trip, where we learned that some regions have laws against the form of butchering. This question will determine if the consumer may or may not have a harder time obtaining pork products if there is another barrier, like butchering, that becomes a factor. Secondly, a pig has a lot more uses than just using its meat. It can be used for medicines, lard, leather, fertilizer, glue, and more. Even if the culture in India does not want to consume pork, these other uses could help individuals use pig products in other ways to still benefit from the trade. The aspect of alternative uses of the pig is not a main research question for this discussion and would be an area of future research in this topic.

Methodology

The method of gathering data for this project involved surveying the target market groups established previously. The surveys were intended to gauge the current amount of demand, the barriers against pork products, and a few other questions that helped paint a bigger picture. A General Consumer, Local Restaurant, and Culinary Professional survey were written, approved by the University of Northern Iowa's Institutional Review Board, and distributed to consumers within India. The surveys were brief, easy to answer, and had clear questions for those who completed them. Each survey had questions that were specific to each category of respondents, but general demographic questions were included as well. The demographic question asked age, gender, income, education, region, and religion. This was used to gauge a basic understanding of what demographics in general might be more inclined to consume pork. After gathering results from the surveys, the highest demographic was male, between the ages of 18-25, from the Northern region, and of the Hindu religion.

The General Consumer survey had the most general questions out of the surveys. After answering the demographic questions, respondents were asked if they eat now or have ever eaten pork before. Next, they were asked if they have not tried pork, if they have any interest in doing so. The respondents were asked to choose a specific reason preventing them from eating pork: it is expensive, religion is against it, no interest overall, not included in their diet, no way to store or prepare the product, or they do not have a reliable source to purchase it. Then, if applicable, consumers were asked how often pork is included in meals, how it is most commonly prepared, and whether they would rather eat it at home or in a restaurant. After arriving in India, an inquiry was added concerning the use of frozen products, if they use frozen foods currently and if not, would they be willing to do so. This question is asked because a product that needs to stay fresh while being distributed across the world will need to be frozen. If consumers in India are not used to frozen foods or do not have a way to store them, then it would cause another challenge for producers. One of the last questions asks what kind of information is requested for consideration; recipes, nutritional information, production information, or anything the respondent wanted to include. Lastly, they are asked about Halal laws, and the respondent either had to answer that there were or were not Halal Laws in their region.

The Local Restaurant survey followed a similar line of questioning to the General Consumer survey, but some questions were revised to fit the corresponding market. Along with the questions listed above, the Local Restaurant survey asked the restaurant owner if there were currently any non-vegetarian items on their menu. If there were, that establishment was more likely to consider pork for their menu. They are then asked what kind of food is served: traditional Indian, Chinese, American, or other. Next was a question about how many customers are served per day, and whether the restaurant presides in a prominent tourist location. Another

question asked where the restaurant currently gets its meat supply from, and if it is purchased fresh or frozen.

The last survey, the Culinary Professional Survey, is very similar to the Local Restaurant survey. The only difference is that respondents were asked to specify whether they were a student or professor at a culinary school, or a manager or chef at a business, mostly hotels. The main information needed here was identical to what is needed from local restaurants: what kind of food is served, do they use fresh or frozen meats, and where the current supply comes from. We ask what type of food is served to gauge whether they currently serve meat products or not, because a purely vegetarian restaurant would be harder to influence than a restaurant that already serves non-vegetarian options. The comparison of fresh versus frozen meats is necessary to see if the restaurateur has experience with frozen products or not and may need to be an area to provide them assistance with. The question asking where the current supply comes from helps in establishing where the current distribution lies and how the United States can compete with that. Overall, since the tourism industry is so high in India, a focus on hotels and culinary schools was needed because there are lots of consumers that go through these channels. Hotels will serve millions of tourists, and top culinary students end up working at these high-end hotels that serve these consumers.

Google Surveys are used to ensure that respondents would have easy access to the surveys and could easily understand the questions asked. These surveys were distributed during the trip to India in December of 2022. Professor Vikas Kumar is a colleague of Chris Schrage and arranged the trip to do face-to-face research. Professor Kumar also helped tremendously in making sure the surveys were given out in a timely manner and written in the best way possible

for consumers to understand. Most Indians do speak English, but Professor Kumar was there to help with any language or cultural barriers during research.

Results

After the trip was over and the surveys had been completed, the results were collected and interpreted. For the basic demographics of the research, the main consumers that took the survey were male, between the ages eighteen and forty, from the Northern region, following Hinduism, either currently in university or graduated university, and were in the “middle class” of India. Unexpectedly, the consumers told us that income is not typically something that is shared with anyone in their country. They believe that is very private, even if doing an anonymous survey. Overall, a lot was learned from the surveys, but even more valuable information came from interactions with locals and observations of the culture itself.

From the General Consumer survey, the respondents overwhelmingly answered, at seventy one percent ($n = 213$), that they have never tried pork products. However, this was expected, especially with most of our respondents also being of the Hindu religion. When asked if there was any interest in trying pork, a little over sixty percent answered “No.” This bled into the other questions, where they responded that they did not use it in any meals, they do not eat it either at home or at restaurants, and overall do not have any interest in adding pork to their lives. Even if they were interested, most consumers would not want to buy any frozen food and therefore would most likely not buy Iowa pork, since it would have to be frozen. A disadvantage to this process was that most consumers did not even want to take the survey at first, because they wanted nothing to do with meat products. They were still urged to answer the questions, even if each response was “No” or “Not Applicable.” If they were to consider these products, the

information they wanted to know most was nutritional information, recipes, and the hygiene of pigs themselves.

In general, and not just within the target markets for this project, any meat product needs to be butchered in the right way to even be considered for purchase by consumers. Therefore, a question about Halal Laws was included in the surveys. The consumers were simply asked if Halal Laws existed in their region. The surveys revealed that only twenty percent of respondents lived within a region where Halal Laws were active. These regions consist of Rajasthan, Haryana, and Delhi, which corresponds with the finding from the surveys that Northern regions tend to have lower meat consumption and knowledge. Consumers that do not have to worry about Halal Laws may be more willing to purchase meat products since there would not be any regulations against doing so.

From the Local Restaurant survey, it started with a baseline of fifty five percent ($n = 13$) of restaurants currently serving some sort of meat product. The restaurant owners that responded showed that they served around one hundred to five hundred customers a day, and over eighty percent responded that they do in fact reside in a tourist location. The owners revealed that they do not currently have a good quality source of meats, so that would be information that local producers in Iowa can provide. It was also discussed that restaurant owners are nervous to start incorporating more meats into their menus, due to potential backlash from customers. Even if the owners themselves would be interested in pork products, they would be less inclined to consider it because they believe that their customers in the region follow religions that prohibit meat consumption. Another barrier for restaurant owners is price. It is not surprising that importing from the United States would cost quite a bit. On the trip, a restaurant owner shared with us, in broad numbers, that restaurants usually only want to spend thirty five percent on import costs. If

imported from the United States, that cost would be about forty percent. While that is not too much higher from their threshold, it is still a big factor for them to think about. Even large chain restaurants like Barbeque Nation, which we visited on the trip, struggles to find consistent meat suppliers.

The Culinary Professional survey had similar results. However, it was discovered that hotels use a higher volume of pork for their breakfasts and lunches. Pork is used for sausage, hams, bacon, and baked loins. Even though these facilities do use pork, the Culinary Professional survey showed that they are still wanting to know more about where to get a reliable source and are interested in learning more. Since the tourism industry is so big in India, these high-end hotels and culinary schools would be a major target market. They are already known to use pork products, so Iowa producers would have an easier time trading with this group than the others. This was a major factor in our research, as we did not know that the hotel industry was large there. Talking to hotel managers and chefs gave insight into the fact that hotels would be a target market, since they currently use pork products specifically for their most consumed meal of the day, being breakfast.

The results from the three survey groups told a lot about the current and potential demand for pork in India. The overall result is that there is a potential market for pork in India, but right now it mostly resides within the tourism industry, like hotels. Contrary to what was expected, the population of Indians are going to stick to their religion fiercely. The aspect of Indian consumers using frozen products is not going to be feasible. Indian grocery stores already have such a slim selection for frozen items, none of which include meat. They also simply do not have the knowledge on how to prepare frozen foods since it is so uncommon there, and access to refrigeration is low in India, which we saw firsthand through grocery stores and visiting local

villages. Another result showed that consumers in general do not have the knowledge of where to get pork products and that there are suppliers that can provide high quality meats. Without the knowledge of a supplier that has good meat products, consumers would most likely not be motivated in finding them. The producers in the United States could help overcome these implications by providing that knowledge.

Conclusion

Although the experience and trip gave many insights, a downfall of the research to mention was that with the trip taking place in the Northern region of India, our respondents were mainly Hindus. By word of mouth, it was suggested that if the surveys were to be distributed in the Southern region, a lot more Christians would be included in that group, and they would be most likely to have pork in their diets. Since it was difficult to travel to that region during this visit, it was not feasible to test that hypothesis. This could be an opportunity for research in the future to expand even more on this topic.

The Trade Agreement between the United States and India being released gave a glimpse into how our community could participate in trade. Being a part of trade of this magnitude could help Iowa pork producers expand their businesses and help both growing economies. In the future, with the legal barriers reduced for trade to India, it is likely that business between these markets will continue to increase. Both the demand for pork and the availability from Iowa producers will rise in the next few years, proving that trade is feasible. While there is no strict prohibition against consuming pork, some religions in India simply do not consume meat. As of now, consumers in India do not have enough experience with or knowledge of these pork products. Therefore, Iowa producers have the chance to promote pork within India to show the nutritional value and the economic benefits of trade. Even though there may be some factors that

prevent individuals, restaurants, and culinary professionals from using pork, the Trade Policy makes it easier for these groups to obtain pork products. It would also give local pork producers in the United States to meet demand for this product and enrich the value of their business.

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