HOW TO SUCCESSFULLY SELL PLANT-BASED PROTEINS IN A CARNIVORE STATE

By

ERICA BESCH

Bachelor of Science in Business Administration
Oklahoma State University
Stillwater, Oklahoma

2022

HOW TO SUCCESSFULLY SELL PLANT-BASED PROTEINS IN A CARNIVORE STATE

Thesis Approved:

Willie Tao, Ph.D.

Lisa Slevitch, Ph.D.

Name: ERICA BESCH

Date of Degree: DECEMBER 2022

Title of Study: HOW TO SUCCESSFULLY SELL PLANT-BASED PROTEINS IN A

CARNIVORE STATE

Major Field: HOSPITALITY AND TOURISM MANAGEMENT

Selling plant-based proteins in a state that is heavily based on agriculture and populated with a majority of carnivores remains challenging. The answer on how to do it the right way is unknown. There are some businesses that sell plant-based protein quite successfully; however, there is no guide on what makes them successful. The objective of this study is to explore and learn from a successful business that is selling plant-based products. The data was collected through a qualitative approach, using observation and in-depth interview with business owners, to evaluate success factors for this specific business. The results revealed a variety of themes that caused the business in the study to become successful including customer needs and interactions, product experimentation, the target market and partnerships, and continuous goal setting. Strategic marketing and brand partnerships companied by homemade plant-based products, are the main focus of the business owners. If other businesses can replicate the marketing methods and gain leverage on social media platforms and create a unique product, selling plant_based proteins in a carnivore state could become less of a challenge and could change the way that carnivores in this area view plant-based proteins.

TABLE OF CONTENTS

Chapt	ter	Page
Ī.	INTRODUCTION	1
	Purpose of Study	
	Background of Study	2
	Need for Study	2
	Objectives of Study	3
	Definition of Study Terms	3
II.	REVIEW OF LITERATURE	4
	Brief History of Plant-Based Proteins	4
	Early Plant-Based Proteins	
	Why Plant-Based Proteins are Becoming More Popular - Driving Factors	
	Challenges with Consumer Attitude to Plant-Based Proteins	
	Food Truck Background and Millennial Popularity	7
III	METHODOLOGY	9
	Research Design	9
	Participant Selection	10
	Research Instrument	
	Data Collection	12
	Data Analysis	12
IV	. RESULTS	13
	Themes Emerged and Selected Quotes	
V.	CONCLUSIONS AND IMPLICATIONS	17
	Summary of the Study	17
	Implications	
	Limitations	19
	Suggestions for Future Research	20
	REFERENCES	21
	APPENDICES	23

LIST OF TABLES

Table	Page
1 Interview Questions	13
2 Selected Quotes and Associated Themes	15

CHAPTER I

INTRODUCTION

Plant-based proteins are sold in a variety of forms in stores and at restaurants and have become increasingly popular over the past few years. While they have grown in popularity, there are still challenges in creating and selling plant-based proteins. Originally, plant-based alternatives were intended for vegetarians to consume; however, they have recently made efforts to expand to meat eaters that are considering the health and environmental impacts of eating meat as their main protein source (He et al., 2020). With this effort to encourage the consumption of plant-based protein as a meat alternative, there are challenges to overcome and consumer attitudes that must be changed in order to have success in those efforts. Research has shown the negative environmental impacts of meat consumption and has suggested some health impacts as well (Godfray et al., 2018). However, it is still a challenge to break the consumer attitude about plant-based proteins and provide a product that appeals to carnivores.

This chapter introduces the study and provides the purpose of the study, the background of the study, the need for the study, the objectives of the study and defines terms that are related to the study. This information is followed by a literature review to review previous research done regarding plant-based proteins, how they perform in the industry, and the perceptions of food trucks. All of these topics are researched separately to get an informed background on the aspects of the business that is evaluated in this study.

Purpose of Study

Due to the consumer attitudes and hesitations towards plant-based proteins it can be a challenge to sell these products successfully. Particularly in Western areas of the world, this is a barrier to overcome in order to be successful selling plant-based products. This study aims to answer the following question: How to successfully sell plant-based proteins in a carnivore state. The purpose of this study is to give insight to business owners that are making and selling plant-based products about how to achieve success even in an area that might not be receptive to the products that they are offering.

Background of Study

Research shows that there is an increase in people who are consuming plant-based options as a meat alternative and that there is an increase in concern for what meat production and consumption does to the environment and the consumers health (He et al., 2020). Historically, plant-based proteins were invented to be a separate source of nutrition and not to be a direct substitute of meat. The plant-based protein industry has evolved which has increased the interest in plant-based options but has not overcome the challenges of selling plant-based products to a market that lives off of agriculture and has always been meat eaters predominately.

Need for Study

There is research about plant-based proteins and the growth of the industry such as the evolution of flavor, texture, and quality of these products (McClements & Grossmann, 2021). Theoretically, there is a gap in research about how to not only create a desirable plant-based product, but also how to sell it to a market that is resistant. Practically, there are limited dining options for plant-

based options, and the majority of those options have only a few items on the menu or are targeting only vegetarians as their consumers.

Objectives of Study

In order to study how to successfully sell plant-based products in a state like Oklahoma, this study conducted an in-depth interview with owners of a vegan food truck that is successfully selling plant-based proteins to meat eaters in addition to people already following a vegan or vegetarian diet. The interview includes questions about the product itself, the marketing of the product, the background of the business, and the consumers.

Definition of Study Terms

- **Plant-based proteins**: Plant-based proteins are a food source where the main protein source is from plants rather than from animals.
- *Carnivore states*: Carnivore states are geographic areas (states) that are predominantly composed of meat eaters.
- **Food truck**: Food trucks are an alternative restaurant style where the food is sold and often prepared on a large vehicle.

CHAPTER II

LITERATURE REVIEW

Brief History of Plant-Based Proteins

Meat consumption has increased globally since the 1960's, but so has the knowledge of negative impacts of meat production and consumption which has led to more focus developing plant-based alternatives to meat products (González et al., 2020). Plant-based protein products have been used for centuries beginning with soy products used to make tofu and tempeh and have evolved over time into the plant-based proteins that we have today (He et al., 2020). From these soy-based protein sources the plant-based proteins have evolved into more of a substitution for meat products such as burger patty substitutions where the focus is on getting a similar quality, taste, and texture as meat using plants (McClements & Grossmann, 2021).

With the growing popularity of plant-based products the variety and quality of plant-based substitutes for meat have grown. There are now products using different types of peas and rice to create the desired texture and taste from what began as mostly soy products. Some other options are being made with milk and eggs to create products that still have sufficient protein without going through the production phases that it takes to produce meat from the stages of the animal to the human consumer. With all of these protein sources now being used the options are more plentiful and there is a growing push to decrease the amount of meat that humans are consuming in their everyday diets (Lee et al., 2020).

Early Plant-Based Proteins

Plant-based proteins originated in Asia with soy products, including tofu made from curdled soy milk and tempeh made from soybeans. Many of the reasons for plant-based diets in the past have been religious reasons. These products have spread globally and are used to this day, but the plant-based proteins that are becoming popular today are not just soy products. China and India are the origin of these traditional protein alternatives and because of that these products are commonly used in dishes that are native to the culture in those areas. The first protein products were not created to be considered alternatives for meat like they are now. They were protein sources that people used to get the desired nutrients without animal products, but they were not created to replicate meat or substitute it in any way. The texture, taste, and cooking methods were unique to the product. These first-generation plant-based proteins were common for vegetarians who did not desire the taste or texture of meat. This is easy to observe based on the flavor, colors, common seasoning and cooking methods of products like tofu. People have tried to modify it and season it to imitate meat in the more recent days but the product itself does not imitate animal meat in any way and it was not designed to be anything other than a source of nutrients (He et al., 2020).

Why Plant-Based Proteins are Becoming More Popular - Driving Factors

Some of the most notable driving factors for the increased interest in plant-based proteins are the health and environmental benefits. As there is an increasing concern for the environment, more people are considering the environmental harm that the production of meat can cause.

Driver I: Environmental Concerns

Out of all the foods, meat is known to be one of the foods that has the largest environmental impact because of the energy that it takes for the animals to produce the meat and then for production to get the meat from the animal to the consumer. There are some changes in meat production such as water and energy use that could be improved upon to help the environmental mark that meat production is creating but overall the animals that produce the meat are one of the main energy inefficiencies. That means the only way to reduce this impact is to reduce the amount of meat consumed or to eliminate it all together (Djekic, 2015).

Driver II: Health Concerns

There have been many studies to evaluate the health associations with eating meat and the conclusions are hard to come to because of the extent of the study and the other factors that are hard to control in the lifespan of a human study. There is some association between consumption of red meats and colorectal cancer. In addition, a number of cancer deaths are reported to be related to the consumption of processed meats (Godfray et al., 2018). The amount of processed meat consumed is considered to be a factor in certain diseases including cardiovascular disease, however there is not enough evidence to prove a direct relationship (Godfray et al., 2018).

Challenges with Consumer Attitude to Plant-Based Proteins

Even though there are substantial benefits to reducing or eliminating meat as a main protein source in human diets, there are still a lot of people that will not fully eliminate meat and make the switch to plant-based proteins. Some people are willing to reduce the amount they consume but not willing to cut it out entirely. Then there are others who are unwilling to reduce the

amount of meat they consume at all. There is a stigma that all plant-based proteins have a distinguishable texture and a certain taste that is not similar to meat (Kaczmarska et al., 2021). People around the world are trying to create ways to make the plant-based products as close to meat as possible and new technology is helping the progress of plant-based protein options but there is still a stigma to overcome. In the past, these products were only intended to target the vegetarian audience which is something that has changed recently as more and more businesses are producing a product for meat eaters to encourage their healthy eating and reduce their meat consumption (Godoy, 2021). Another challenge that plays a role in the consumer attitude towards plant-based options are that those are typically a more expensive alternative and harder to find (He et al., 2020). While it is already challenging to overcome the barrier of consumer attitude about the products themselves, the consumers would first have to seek out a restaurant with these options before they could have access to trying plant-based proteins. The ease and popularity of food trucks make this initial step more appealing to the consumer because it is more similar to their attitudes about the fast food they are going through a drive thru to get already.

Food Truck Background and the Millennial Generation

The food truck industry has grown increasingly and is expected to continue to grow as a main segment of the food production and service industry. Consumers like the difference from a traditional dining style and the convenience that a food truck can offer. It is also beneficial to the restaurant owner because it is a cheaper alternative and can be mobile if desired. The millennial generation has a particular attraction to the food truck industry because they are more adventure seeking than previous generations. Millennials are more adventurous in the foods they eat and in the traditional dining services. Studies have shown there is an environmental concern that some

have with food trucks and the waste that they contribute. The suggested food truck success strategies are marketing their uniqueness and targeting the younger consumer market (Yoon & Chung, 2017).

Based on the literature that is already available, there has been study of plant-based proteins and the products themselves. In addition, there is literature on the benefits of plant-based diets to the environment and to a person's health. As food trucks have become more popular the food truck dining style has been studied in comparison to more traditional dining styles.

Nonetheless, there is a gap in research that connects plant-based eating and sales to an audience that is very resistant. Additionally, there is a gap in the literature of marketing plant-based products to a target audience that has a strong consumer attitude against it. This chapter of literature review not only synthesize the extant literature but justifies the need of the current research.

CHAPTER III

METHODS

The purpose of this study is to evaluate the success factors of one specific business entity that is selling plant-based proteins successfully. The results of this study will help researchers evaluate different aspects of the selected business and make suggestions about what they are doing successfully for other businesses to implement. This chapter describes the design of the research and data collection methods as well as the participant selection and the research instruments used for data collection.

Research Design

The research used a qualitative approach, which involved a semi-structured interview. A series of questions that related to the history and success of the business were developed in advance. Clarification questions were used to clarify the information received during the interview. The interview was conducted in person with both participants and the investigators of the study. The researcher introduced the research purpose and the research question and then began audio recording the interview. The researcher asked interview questions regarding each of the categories and then asked further questions to expound on the initial answers and better understand the business strategies and operations. The information was then transcribed from the audio version into a written version for data analysis. The section below explains in greater details and the participant selection for data collection, the instruments used for data collection and the procedures.

Participant Selection

The qualitative data was collected from one successful plant-based business located in the capital of Oklahoma (i.e., Oklahoma City). Specifically, "The Beet Box" was selected as a subject of the study. The Beet Box is a vegan food truck that was formerly located in Stillwater, Oklahoma and then relocated to Oklahoma City for a larger market. They sell plant-based alternatives to chicken sandwiches as well as other common fast food items that are traditionally made with meat. There was often a line outside the food truck waiting for food, showing its popularity. The location of the business in Oklahoma as well as the visual success of the business were the participant selection criteria. The owners and operators of the Beet Box agreed to participate in a one-hour interview about their business practices that created the success of the business.

Research Instrument

The interview questions were broken into five main categories that would potentially be driving factors for the success of this business. The categories were: background, marketing, customers, product, and menu (Table 1). Each category consisted of multiple interview questions related to the category to gauge how important that factor was to the success of the business. The questions were designed to help researchers better understand not only how important each factor was to their business but also the practices they implemented to find success in those areas.

Table 1: Interview Questions

Background	Once you started selling the plates and stuff, is that how you saw that there was a need?				
	How did you decide to establish goals like was it a goal to save up enough to buy a food truck and your goals now to expand and produce?				
	Have you always had this creativity desire or like desire to create something?				
	How do you figure out the process of combining your vision for business into practices?				
	What influenced your move from Stillwater to OKC?				
	Would you say like finding production facilities and spaces is your biggest challenge?				
	In OKC there is more competition for vegan food options, you haven't had any challenges with that since moving?				
	How does your relationship work with Sunnyside to help produce on a bigger level?				
Product	How do you choose ingredients when making new products?				
	Do you have a list that you filter through of what ingredients you choose from?				
	How did you start developing vegan food products?				
Menu	Does your menu change weekly?				
	How often are menu changes made?				
	Do you think with being a food truck and not a sit-down establishment that people expect a more variable menu?				
	Once you had an initial client base, were you able to incorporate new recipes and products and have more success?				
	Are fries the only side option offered?				
	If there is a trend that you want to incorporate in your menu, how long does it take to formulate a solid recipe and make it onto the menu?				
Customers	When you treat customers like that does it bring your internal gratification? Does it make you happy?				
	Would you partner with companies like Canes or Chick-fil-a, do you see potential?				

Data Collection

Data for this study was collected through the interview, which was later transcribed accordingly. The participants had an initial contact to better understand what the interview would be about. To comply with the Oklahoma State University's Institutional Review Board (IRB), the participants completed a participant consent form. The participant consent form included the title of the study, investigators involved in the study, purpose of the study, what to expect from the interview process, risks and benefits involved in participating in the study, compensation information, participants rights and confidentiality, and additional contact information. Participants signed the form as an understanding of their participation in the study. This participant consent form and a copy of the IRB approval can be found in the appendices section of the thesis. The interview questions are included in a table found in the following chapter.

Data Analysis

In order to answer the research questions using interview data, a recording of the interview was transcribed so that it could be better evaluated. From the transcription there were certain quotes from the participants identified as contributing to their overall success as a business and business owners. Virginia Braun and Victoria Clarke's thematic analysis procedure guided the data analysis. Beginning with the interview to familiarize the data, followed by generating codes and searching for themes, and then reviewing and naming themes, the data was able to be analyzed and produced (Braun & Clarke, 2006).

CHAPTER IV

RESULTS

This section describes the results of the interview and how the interview answers the research question of how the participants are successfully selling plant-based products in an area that is made up of predominantly carnivores. To structure the answer to this question and make it more focused the interview covered different parts of the business that we wanted to analyze. In the results, readers will see how the different aspects were covered in the interview questions and how the participants responded about each section. This section will summarize the outcomes of the data collection and highlight data that was attributed to the success of the participants and their business.

Themes Emerged and Selected Quotes

The selected comments stood out to us as success factors and are included in Table 2 below and categorized into common categories based on the interview topics and then broken into themes based on the participants' responses.

The participants shared their thoughts and goals for their business, how they began selling plates out of their college apartment and have grown their vision along with their business. To be successful and carry out their visions from being college students working side gigs, to making enough to start their own business. The participants have strategized their success selling plant-based proteins. They have a passion for marketing and doing so creatively. Through partnerships and trending ads, they have increased their social media presence. In addition, they value their customers and try to know their customers that are supporting their

goals. With the confidence in their vegan recipes and passion for marketing they have found success and continue growing their vision for this plant-based business.

Customers. During the interview, the participants spoke extensively about the effort they are making to be familiar with each customer and recognize them by name. They try to know and remember things about the customers and make a personal connection with them to make the customer feel important. They also pay close attention to the needs of the customer. One example of this is the limited number of vegan options in the Oklahoma City area and the limited hours of operation that these vegan restaurants have. The Beet Box is open at dinner time because they noticed that not a lot of the surrounding vegan options were open during dinner hours.

Product. The participants spent a lot of time experimenting and creating the products that they now sell in order to make it appealing to vegans as well as non-vegans. One effort they are making to make their product appealing is by having special items rotate on the menu so that there is something new for customers to try. They also pay close attention to how their products are being presented to the customer. They make it a priority to provide consistent product that is generous in portion size.

Marketing had been a major contributor to the success of the participants and the Beet Box. The participants shared the different brand partnerships they had done recently with soda companies and beef jerky companies to get their brand name in front of more consumers. They have also used other major fast food chains to inspire vegan options like a vegan Cane's sauce served with their vegan chicken sandwich. All of these strategies have given the Beet Box more exposure as a brand. In addition to building their brand exposure and target market, they have also used social media to bring exposure to vegan options in Oklahoma, even other vegan

restaurants. After they established this social media platform, they were then able to share about their product and brand as a new additional vegan option.

Vision. The participants started this business on a college campus in a small town and developed into an operating food truck that is looking to expand. They have set goals for themselves along the way and have pushed one another as business partners to be successful in the business and in their personal life. The vision they have for the Beet Box is for it to be popular amongst meat eaters so that they can encourage a decrease in meat consumption and provide a desirable option for vegans and carnivores to enjoy.

Table 2: Themes and Selected Quotes

Interview Categories	Themes Emerged	Selected quotes
Customers	Knowing customers and interacting	We know their cars, we know their names, we know their outfit. Sometimes they add us on our personal social media because they like us so much.
	Recognizing customer needs	Most of our money comes during the dinner rush because there are no vegan dinner options.
Product	Following trends and encouraging experimentation	We always want to have something new for people to try.
	Making products how they would want to eat them	Everything comes out hot, fresh, toasted, toppings are always very generous.
	Perfecting the recipe and process	The biggest thing is obviously the taste. Each patty is handmade and goes through a whole process.

Table 2 (continued): Themes and Selected Quotes

Marketing	Target market	As far as getting carnivores to try it out, marketing is everything.
	Partnerships and creativity	We do whatever we can to get in front of the spotlight because we know what we have.
Vision	Opportunity to be the food for everyone	Everyone can eat something that's vegan. Everyone cannot eat something that is not vegan.
	Continuous improvement and goal setting	Your vision board should be larger than your TV. If not, then you aren't working hard enough.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

The conclusions of the study's findings are included in this chapter. Also included in this chapter is a summary of the study, implications drawn from the findings of this study, limitations, and suggestions for future research about how to sell plant-based proteins in a carnivore-based area.

Summary of the Study

The purpose of this study was to evaluate how a business can successfully sell plant-based proteins in a carnivore state. We wanted to analyze how a business can overcome the consumer attitude about plant-based foods and create and sell a product that is appealing to a carnivore market. The findings of this study provide a direction to consider when evaluating other plant-based businesses and how they can be successful in their surrounding environment. Plant-based proteins are growing in popularity and have the potential to break the barrier that many carnivores have established to veganism and vegetarian based diets. As businesses learn how to strategically sell plant-based foods to carnivores these diets will continue to become more popular even in areas that are heavily carnivore concentrated. The data was collected through an in-depth interview with a successful plant-based food truck. The participants' response to the interview questions shed light on areas of a plant-based business to focus on to appeal to a larger market that include carnivores. This information can be used by other operations selling plant-based proteins.

Implications

Based on the previous literature about plant-based proteins, this study is consistent with the findings of consumer attitude towards plant-based products (Kaczmarska et al., 2021). There is a hesitation to overcome as a business that is marketing and selling these products. The previous literature also spoke about the evolution of plant-based proteins which is consistent with our sample and the way they have developed their product and marketed it towards carnivores (He et al., 2020). In contrast to the previous literature (Djekic, 2015; Godfray et al., 2018), this study focuses more on marketing than it does on the health concerns or environmental concerns. The Beet Box has a goal to make the food that carnivores crave but to make it plant-based because of these health and environmental benefits. The participants became vegan for health and environmental reasons but they recognize that what other people need in order to consider veganism is the food that they love and crave.

The responses to the interview questions helped answer the research question of how the participants are successfully selling plant-based proteins in a carnivore dense market. The amount of time the participants spent discussing the different aspects of the business gave us better insight to the importance of each aspect for them as it relates to their success as a business. They strive to create an appealing product to vegans and non-vegans that will help break the barrier of consumer attitudes in the surrounding environment. There were certain topics that came up repeatedly in the interview that highlighted the importance of that attribute to their success. For example, the participants continued bringing up their vision behind the products and business and how they set goals and push one another. They also spoke intensively about marketing methods and how they used collaborations and trends to market their products in order to reach a wider audience. From the responses during the interview it is clear that these two

things are important driving factors to the success of the business and of the participants as business owners in addition to the food product itself.

The other thing mentioned multiple times was the product itself and how much thought and practice went into the recipe development. The participants made a point to recognize and strive for consistency with their products and making the menu items substantial enough to fill their customers up. From the data collected the product itself is clearly important, but marketing was a large factor in getting the product to consumers who are in an environment where it is common to have reservations towards plant-based foods. This research successfully shortened the gap of the previous research regarding plant-based protein sales to a carnivore population. The participants are marketing specifically to reach the meat-eating demographic and creating products that will be desirable to everyone, vegan or non-vegan.

Limitations

There were limitations during this study due to time and resource availability. There were only a limited number of fully plant-based food options in the location of Northern Oklahoma to study, and many of the other establishments were much less popular among carnivores. With only one business being observed, it was more challenging to compare the strategic business methods and isolate what factors were attributing directly to the success of the business. Therefore, the study results may not be generalized beyond the research context. Even so, this was the best and feasible decision for our research because of the limited number of plant-based foodservice venues in the study area. The overall success of the business itself is complex to evaluate because of the time frame of the study and the access we have to common measures of success such as the financial information. Business success is commonly measured by financial health, and most small business and food trucks do not have financial information that is publicly

available. In the future, additional measures of success and comparison with other plant-based restaurants would help to evaluate more objectively on how the Beet Box is successfully selling plant-based proteins in a carnivore saturated environment.

Suggestions for Future Research

Selling plant-based products would be a more successful industry if businesses can overcome the barrier of consumer attitudes to plant-based proteins. This study provides practical insights to how a business might overcome that barrier. Due to limitations that influenced this study, there is room for further research. Future research is encouraged be done to survey customers at plant-based establishments and better understand the demographic of the consumers and their thoughts or hesitations to eating plant-based. This would allow researchers to understand how the marketing and product development is reaching other demographics. Future research should also measure the success of a plant-based operation in comparison to the success of plant-based operations in geographic areas that are more open to vegan diets and evaluate whether marketing and brand image is as important for them or not because they do not have the same barrier. In addition, future studies could evaluate the influence that being a food truck has on the success of the business and if the success varies from the levels of service and types of establishments that are selling plant-based protein options.

REFERENCES

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
 - https://doi.org/http://dx.doi.org/10.1191/1478088706qp063oaDjekic, I. (2015).
- Environmental impact of Meat Industry current status and future perspectives. *Procedia Food Science*, *5*, 61–64. https://doi.org/10.1016/j.profoo.2015.09.025
- Godfray, H. C., Aveyard, P., Garnett, T., Hall, J. W., Key, T. J., Lorimer, J., Pierrehumbert, R. T., Scarborough, P., Springmann, M., & Jebb, S. A. (2018). Meat Consumption, health, and the environment. *Science*, *361*(6399), 1-5. https://doi.org/10.1126/science.aam5324
- Godoy, M. (2021, November 16). *How to get meat eaters to eat more plant-based foods? make their mouths water*. KRWG. Retrieved May 5, 2022, from https://www.krwg.org/business/2019-02-10/how-to-get-meat-eaters-to-eat-more-plant-based-foods-make-their-mouths-water
- González, N., Marquès, M., Nadal, M., & Domingo, J. L. (2020). Meat consumption: Which are the current global risks? A review of recent (2010–2020) evidences. *Food Research International*, *137*, 109341. https://doi.org/10.1016/j.foodres.2020.109341
- He, J., Evans, N. M., Liu, H., & Shao, S. (2020). A review of research on plant-based meat alternatives: Driving forces, history, manufacturing, and consumer attitudes.

 Comprehensive Reviews in Food Science and Food Safety, 19(5), 2639–2656.

 https://doi.org/10.1111/1541-4337.12610
- Kaczmarska, K., Taylor, M., Piyasiri, U., & Frank, D. (2021). Flavor and metabolite profiles of

- meat, meat substitutes, and traditional plant-based high-protein food products available in Australia. *Foods*, *10*(4), 801. https://doi.org/10.3390/foods10040801
- Lee, H. J., Yong, H. I., Kim, M., Choi, Y.-S., & Jo, C. (2020). Status of meat alternatives and their potential role in the future meat market a review. *Asian-Australasian Journal of Animal Sciences*, *33*(10), 1533–1543. https://doi.org/10.5713/ajas.20.0419
- McClements, D. J., & Grossmann, L. (2021). A brief review of the science behind the design of healthy and Sustainable Plant-based foods. *Npj Science of Food*, *5*(1), 1-6. https://doi.org/10.1038/s41538-021-00099-y
- Merriam-Webster. (n.d.). *Food truck definition & meaning*. Merriam-Webster. Retrieved May 5, 2022, from https://www.merriam-webster.com/dictionary/food%20truck
- Yoon, B., & Chung, Y. (2017). Consumer attitude and visit intention toward food-trucks:

 Targeting millennials. *Journal of Foodservice Business Research*, *21*(2), 187–199.

 https://doi.org/10.1080/15378020.2017.1368807

APPENDIX A: IRB APPROVAL



Oklahoma State University Institutional Review Board

Date: 01/31/2022 Application Number: IRB-22-39

Proposal Title: How to successfully sell plant based food in a carnivore state

Principal Investigator: Erica Besch
Co-Investigator(s): Lisa Slevitch
Faculty Adviser: Willie Tao

Project Coordinator: Research Assistant(s):

Processed as: Exempt

Exempt Category:

Status Recommended by Reviewer(s): Approved

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in 45CFR46.

This study meets criteria in the Revised Common Rule, as well as, one or more of the circumstances for which <u>continuing review is not required</u>. As Principal Investigator of this research, you will be required to submit a status report to the IRB triennially.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are available for download from IRBManager. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

- Conduct this study exactly as it has been approved. Any modifications to the research protocol
 must be approved by the IRB. Protocol modifications requiring approval may include changes to
 the title, PI, adviser, other research personnel, funding status or sponsor, subject population
 composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures
 and consent/assent process or forms.
- Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
- Report any unanticipated and/or adverse events to the IRB Office promptly.
- Notify the IRB office when your research project is complete or when you are no longer affiliated with Oklahoma State University.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact the IRB Office at 405-744-3377 or irb@okstate.edu.

Sincerely,

Oklahoma State University IRB

APPENDIX B: PARTICIPANT CONSENT FORM

CONSENT FORM

Title: How to Successfully Sell Plant Based Protein in a Carnivore State

Investigator(s): Erica Besch, undergraduate student, Oklahoma State University Willie Tao, Ph.D., Oklahoma State University Lisa Slevitch, Ph.D., Oklahoma State University

Purpose: The purpose of this research is to observe how to successfully sell plant based proteins in an area that is not known to be receptive to plant based alternatives by interviewing successful business owners that sell plant based products and observing the customer base.

What to Expect: This research will take place in person in the form of an interview. Various topics will be discussed including the interviewees backgrounds and methods of success that they have found. The topics discussed will be transcribed in order to further analyze the data to achieve the research purpose. It may take up to one hour and be audio recorded.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

Benefits: There are no direct benefits to you. However, you will help researchers and business owners better understand how to sell plant based proteins successfully.

Compensation: There is no compensation for your participation in the interview.

Your Rights: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.

Confidentiality: The data will be transcribed from an audio recording and used as a reference for a thesis project.

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Erica Besch, Undergraduate Student, School of Hospitality and Tourism Management, Oklahoma State University, Stillwater, OK 74078, 580-745-4600; Willie Tao, Ph.D., School of Hospitality and Tourism Management, Oklahoma State University, Stillwater, OK 74078; Lisa Slevitch, Ph.D., Oklahoma State University, Stillwater, OK 74078. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irradiance.new irradiance.

By signing below you are consenting to participate

Participant signature :	Date:	
Interviewer signature:	Date:	

