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Critical success factors in barbecue restaurants: Do operators and patrons agree?

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CRITICAL SUCCESS FACTORS IN BARBECUE RESTAURANTS:

DO OPERATORS AND PATRONS AGREE?

by

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A dissertation submitted in partial fulfillment of
the requirements for the

Doctor of Philosophy in Hospitality Administration
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THE GRADUATE COLLEGE

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ABSTRACT

Critical Success Factors In Barbecue Restaurants: Do Operators And Patrons Agree?

by

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The research addresses a gap in the literature regarding the barbecue restaurant industry. Specifically, it examines whether barbecue restaurant operators have a thorough understanding of customer preferences. The research was a mixed methods study: four separate case studies were conducted of barbecue restaurants in specific areas of the United States, each of which represented one of the four major barbecue traditions. The case studies were used to create a model of success factor peculiar to barbecue restaurants.

The qualitative model was then tested by administering a survey to regular patrons of barbecue restaurants. Principal component analysis yielded a six-factor model explaining 68% of the variance. Patrons identified barbecue quality, convenience, side dishes, pork, alcoholic beverages, and tea as being important factors in restaurant selection. The model was further tested to determine whether customer attitudes differed in states with strong barbecue traditions and states without such a tradition. No significant differences were found.

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CHAPTER I

INTRODUCTION

Barbecue may very well be the single most popular food in America. It is certainly one of the few that has native origins (Warnes, 2008). Americans love barbecue like nothing else; no other cuisine is taken as personally. People from different areas of the country are fiercely loyal to their particular styles of cooking (Mills & Tunnicliffe, 2005). There are over ten thousand barbecue restaurants throughout the United States (National Barbecue Association (NBBQA), 2008) and two major organizations, the Kansas City Barbecue Society (KCBS, 2010) and the Memphis Barbecue Network (MBN, 2010), sponsor literally hundreds of barbecue competitions throughout the United States and Canada.

Barbecue societies enjoy widespread support within the United States. The KCBS has over 10,000 members (KCBS, 2010) while the MBN, National Barbecue Association, and regional barbecue societies like the New England Barbecue Association have many thousands more (NBBQA, 2010). The Food Network, an American cable television network specializing in shows about cooking and cuisine, has produced a number of programs centered on barbecue (Food Network, 2010).

This interest in barbecue has translated into a great deal of interest in and patronage of barbecue restaurants nationwide. Barbecue restaurants have exploded as a phenomenon in recent years; they have even increased in urban centers like New York City, where local ordinances make opening barbecue restaurants problematic (Meyer, 2008). Annual food sales of barbecue restaurants are measured in the billions of dollars; best estimates are the 10,000 – 12,000 currently in operation produce revenues of over

\$15 billion annually (Frumkin, 2007). Sales of barbecue equipment, supplies, and meats account for hundreds of millions more (NBBQA, 2008).

Barbecue restaurants range from major chain operations like Famous Dave's – with nearly 200 locations in 36 states (Famous Dave's, 2010) – and Dickie's – with over 175 locations in 34 states (Dickey's, 2010) – to small “mom and pop” operations scattered throughout the United States. This popularity has translated into a great deal of sales. Famous Dave's alone reported gross sales of over \$32 million in the first quarter of 2010 (Famous Dave's, 2010). While these chain operations are important to the barbecue restaurant industry, they comprise only about 6% of all barbecue restaurants in the United States (Frumkin, 2007).

Further, barbecue restaurants present a special case for a number of reasons. First, they run the gamut from simple countertop service restaurants to fine dining establishments (Meyer, 2005). Second, they require a great deal of expensive, specialized equipment and supplies, like smokers and specific types of wood (Griffith, 2002). Third, there is a culture surrounding barbecue unlike that surrounding any other type of food in America (Mills & Tunnicliffe, 2005). Barbecue is also booming across the United States with the number of barbecue restaurants increasing seven-fold nationwide in the past twenty years (Davis & Kirk, 2009). A recent study has determined that BBQ represented a discreet segment of the restaurant industry (1 of 33 segments) based upon a menu analysis of the top 400 restaurant chains in the country (using the R & I Top 400) (Barrows & Vieira, 2010).

Purpose of the Study

As a result of this success, barbecue restaurateurs maintain that barbecue restaurants deserve to be considered as a single segment of the restaurant industry. In particular, barbecue restaurateurs believe there are considerations like cooking style, the type of wood used for smoking, and particular beverage offerings, that make barbecue restaurants distinct from any other kind of restaurant and that their customers appreciate and look for these distinct things when choosing a barbecue restaurant (Elie & Stewart, 2005; Meyer, 2008; Mills & Tunnicliffe, 2005).

The purpose of this dissertation was to test the assertion there exists a set of factors unique to barbecue restaurants that operators and customers alike agree are important in their choice of a barbecue restaurant. This research employed mixed methods; the initial qualitative research utilized case studies centered on restaurants representing each of the four major styles of barbecue cooking: Memphis style, Kansas City style, Carolina style, and Texas style. The reason for collecting qualitative data initially was no model existed in the literature to describe the success factors barbecue restaurateurs believe are peculiar to barbecue restaurants. The second, quantitative phase of the research followed up on the qualitative phase by testing whether barbecue restaurant customers agreed with operators on that set of factors. The goal was to determine whether barbecue restaurateurs have a true understanding of what their customers value in choosing a barbecue restaurant.

Research Questions

Being a mixed methods study, the initial research focused on building a model and subsequent questions were framed to test the resultant model.

1. What are the factors barbecue restaurant owners identify as being of particular importance to their customers that are specific to barbecue restaurants?
2. Does the model of success factors as described by owners of barbecue restaurants actually reflect their customers' beliefs? Specifically:
 - a. Is the style of barbecue cooking important to customers in selecting a barbecue restaurant?
 - b. Are food offerings important to customers in selecting a barbecue restaurant?
 - c. Are beverage offerings important to customers in selecting a barbecue restaurant?
 - d. Are specific service options important to customers in selecting a barbecue restaurant?
3. Do residents of states with strong barbecue traditions hold dissimilar views on barbecue than residents of other states?

The literature review will start by looking at barbecue as a cuisine and what makes it unique among the cuisines of America. Why should barbecue restaurants be considered a separate segment of the restaurant industry? An examination of the current literature regarding best practices, also known as critical success factors (CSF), in the restaurant industry (and in other industries) will follow. A discussion of mixed methods

research will ensue, as well as a discussion of qualitative methodologies, especially case studies.

The methodology section of the paper will then discuss how the qualitative model being used was created and why grounded theory and case studies in particular were well suited to this particular application. The paper will report the results of case studies involving four different barbecue restaurants and describe a CSF model that is representative of the whole.

After demonstrating how the qualitative model was created, the paper will report the result of a quantitative study undertaken to confirm which aspects of the qualitative model are shared by customers of barbecue restaurants. The survey will also test whether the more traditional critical success factors are as important to barbecue restaurant customers as they are to customers of other types of restaurants. By comparing the results of the quantitative and qualitative studies, we will be able to determine whether restaurateurs have a good understanding of what their customers actually want.

CHAPTER II

REVIEW OF RELATED LITERATURE

Barbecue as an Academic Study

Since a thorough review of a number of hospitality and business databases revealed no academic studies of barbecue as a business a review of the literature on barbecue must necessarily also rely on the popular media for source material. There exists a rather large set of publications in the popular press regarding barbecue; typing “barbecue” into the subject line for a search for books through Amazon.com yields over 3,100 results. These publications represent a rich source of information about barbecue; many of them are scholarly in nature being extensively footnoted and, in some cases, peer reviewed.

Part of the reason for this lack of academic interest in barbecue restaurants stems from the fact that barbecue restaurants are generally not considered a separate segment of the restaurant industry. Of the major food service industry journals, only *Restaurants and Institutions* (now no longer being published) considers barbecue restaurants at all in its segmentation studies, but that publication cited barbecue only as part of a group that includes steakhouses (Restaurants & Institutions, 2009). There is evidence to suggest, however, that barbecue restaurant should be considered a distinct market segment. A recent market segmentation study based on menu analysis identified thirty-three distinct market segments, one of which is barbecue restaurants (Barrows & Vieira, 2010).

Origins of Barbecue

Warnes (2008), in his book *Savage Barbecue*, traces the origins of barbecue to the Native American cooking techniques Europeans found when they first arrived in the New World. The smoking techniques developed by Native Americans allowed them to preserve meats so they could be eaten safely past their normal life (Warnes, 2008). These techniques were adopted by Europeans who introduced sauces to the cooking process. Further, the slave trade brought an African influence to the cooking process through the use of seasonings (Warnes, 2008) and more importantly, slaves created the barbecue of today through the use of cuts of meat that more affluent people disdained (Griffith, 2002). Slaves were given meat to eat only when their masters had no use for it, so they were relegated to using cuts like back ribs, spare ribs, and ham hocks, as these constituted the throw-aways of the more genteel classes (Griffith, 2002). Through the development of creative cooking techniques slaves were able to fashion the refuse that was the rib bones and hocks of the pig into something truly delicious. They were so successful that today baby back ribs are one of the most expensive cuts of pork.

Immigrants of German heritage brought mustard-based sauces with them, while French and Spanish settlers in the American South brought tomato and vinegar-based sauces (Elie & Stewart, 2005). These different sauces followed settlers into distinct areas of the country where these styles of cooking hold sway to this day.

Regional Sauce Styles

While these sauces and cooking styles have found their way into all parts of the country, we can pinpoint where they arose and, for the most part, predominate. Mustard-

based sauces hold sway in South Carolina and Georgia, while vinegar-based sauces are preferred in North Carolina (Elie & Stewart, 2005). Tomato-based sauces are most popular in the Deep South of Alabama and Mississippi and in Kansas City, while in Texas sauces are eschewed (Elie & Stewart, 2005). In some areas the sauce is applied to the meats during cooking while in others the sauce is applied only at the end of the cooking process or not at all (Mills & Tunnicliffe, 2005). Barbecue restaurateurs and aficionados believe that residents of each of these regions are fiercely loyal to their local style of cooking, even going so far as to deny that other styles can even be called barbecue (Davis & Kirk, 2010; Jamison & Jamison, 2003; Lilly, 2009; Mills & Tunnicliffe, 2005).

What all of these techniques have in common, and what separates true barbecue from simply grilling meats and other cooking techniques that purport to be barbecue, is that the meats are cooked for long periods of time at very low temperatures (usually about 225° to 250° Fahrenheit) using wood smoke to flavor the meat (Mills & Tunnicliffe, 2005). True barbecue is never boiled. Mills put it best, saying “You can put all the sauce on it you want, but you still have to master the art of cooking the meat. (Mills & Tunnicliffe, 2005)”

Regional Styles of Barbecue

There are probably as many different opinions about barbecue cooking styles as there are barbecuers. However, there is general consensus within the barbecue community that four different styles exist: the Carolina style, the Memphis style, the Kansas City Style, and the Texas style.

The easiest to define are the Kansas City and the Memphis styles of cooking. The reason for this is that both are represented by major organizations which sponsor a multitude of cooking contests throughout the United States: the Kansas City Barbecue Society (KCBS) and the Memphis Barbecue Network (MBN). The KCBS, the larger of the two, organizes its cooking competitions into four categories that include chicken, beef brisket, pork shoulder, and pork ribs (KCBS). The MBN competitions are for pork only, being divided into whole hog, ribs, and shoulder divisions (MBN).

This highlights the primary difference between the Memphis and Kansas City styles. For Memphis-style cooks, barbecue is pork and pork alone. For Kansas City-style cooks there is much greater latitude. Both styles involve dry rubs (seasoning of the meat before cooking), although the Kansas City style may also involve wet rubs, or marinades (Davis & Kirk, 2009). Further, Kansas City-style sauces are likely to be thicker and use more tomato than Memphis-style sauces (Mills & Tunnicliffe, 2005).

The Carolina style is harder to define because there are three different sub-regions within the Carolinas, and the residents of each hold very strong opinions about what constitutes barbecue. What they all hold in common is that barbecue is pork, and only pork, and that it should be dry-rubbed before cooking (Garner, 1996). All three regions use sauces that have vinegar as a base, but two of the three add ingredients to them, altering the flavor profiles of the sauces fairly dramatically. In eastern North Carolina the favored sauce – which is never added until cooking is complete – is primarily vinegar and spices (Garner, 1996). In the western part of the state, the Piedmont, or Lexington style, prevails (Elie & Stewart, 2005). In this style, tomato is added to the vinegar base (Raichlen, 2008).

In South Carolina, the vinegar-based sauce has mustard added to it (Elie, 2004). All three of these styles are considered to be part of the larger Carolina style of barbecuing in large part because the differences among the styles – although of great importance in the region - are of little import to those outside of the Carolinas (Garner, 1996).

It is important to note that the Carolina and Memphis styles, while similar, have key differences. Memphis-style sauces are generally thicker than Carolina sauces (Mills & Tunnicliffe, 2005), and with Memphis-style barbecue the sauce is always applied to the meat during the cooking process (although many cooks apply it at the end of the process) (Mills & Tunnicliffe, 2005), while with Carolina-style cooking the sauce is either served on the side or added only after the meat has been portioned (Garner, 1996). Further, Carolina barbecue consists primarily of either whole hogs or pork shoulders, while Memphis barbecue is primarily ribs or shoulder (Elie, 2004). Finally, a Memphis-style barbecue sandwich will be served with cole slaw on top, while a Carolina-style sandwich will not (Mills & Tunnicliffe, 2005).

Texas barbecue is the most distinct of the four styles. In Texas beef brisket and sausages are the primary meats used for barbecue (Permenter & Bigley, 1992). The beef brisket, if it is seasoned at all, is dry-rubbed prior to cooking, and the sausages contain only the seasoning that the maker puts in the meat mix before casing (Engelhardt, 2009). Texas barbecue is generally served with no sauce whatsoever or with sauce in the side; it never has sauce applied during the cooking process or any other time before serving (Engelhardt, 2009).

Defining Success

In undertaking a study of what makes barbecue restaurants successful, it is necessary to define what is meant by success. Restaurants have a notoriously high rate of failure. Parsa, Self, Njite, and King (2005) found the failure rate to be slightly less than 30% in the first year of operation. The same study further estimated that by the third year of operation, the number of failed restaurants is close to 60%. (Parsa, et al. 2005). The failure rate for restaurants that survive their first three years of operation decreases dramatically (Parsa, et al., 2005).

The question of what constitutes success in the restaurant business is complicated by the fact the National Restaurant Association, the industry's leading trade association, does not track restaurant failures, and most of the available data are either incomplete, anecdotal, or superficial (English, Josiam, Upchurch, & Willems, 1996; Martin, 2003). Camillo, Connolly, and Kim (2005) consider a successful restaurant to be one that is "viable;" in other words an on-going operation. Parsa, et al. examined restaurant failures and therefore did not find it necessary to define success.

With a dearth of definitions for success – at least in the restaurant literature - it would therefore make sense to define success as the absence of failure. The widely accepted Dunn and Bradstreet definition of failure is, "termination of a business with losses to creditors and shareholders" (Dun and Bradstreet Reports, 1996). Since the overwhelming majority of restaurant failures that do occur take place within the first three years, the definition of a successful barbecue restaurant, for the purposes of this research, is one that has been in continuous operation for a minimum of three years.

A General Discussion of Critical Success Factors

At this point it is necessary to spend some time discussing critical success factors (CSFs). Using CSFs as an approach to management is not a new idea; its earliest expressions date back to the 1960's (Daniel, 1961). Very little research has been done, however, regarding the use of CSFs as a way to improve restaurant operations. Research has shown that CSFs can also be context-specific or generic to a broader range of industrial conditions (Geller, 1985). Certainly for the purposes of this study CSFs must be context specific, the context being a barbecue restaurant.

There is very little in the literature discussing CSFs per se. Generally discussions of CSFs take place within the context of a particular industry or organization. A number of researchers have defined CSFs. Rockart (1979) defined them as a "limited number of dimensions that ensure successful competitive performance for an organization (p. 82)." Brotherton (2004b) defined CSFs as "the factors that are to be achieved if a company's overall goals are to be met. " Engle (2008) devised an excellent definition, calling CSFs "the most efficient and effective methods of accomplishing a task or achieving a goal, based on repeatable procedures that have proven themselves over time for large numbers of organizations (p. 20)." This is the definition that was used for the purposes of this research.

CSFs have two dimensions to them: internal and external (Duchessi, Schaninger & Hobbs, 1989). Internal CSFs emphasize a company's core competencies that directly influence its likelihood of survival in the marketplace. These competencies include hiring and training (people), product quality, process perfection, etc (Berry, Seiders, and Greshan, 1997). External dimensions, like market conditions and competition, are

generally beyond the control of the business owner (Boardman & Vining, 1996; Brotherton & Shaw, 1996). External dimensions of CSFs will therefore be of little concern for the purposes of this study. They will be considered only insofar as they may have influenced a particular case.

Johnson and Friesen (1995) put CSFs into the context of an organization's mission statement, saying that CSFs must be factors that contribute to an organization's overall goals, and not simply departmental performance standards or targets. CSFs have been applied to business management for over thirty years. Their primary use has been in the field of information systems management. Brotherton and Leslie (1991) demonstrated that applying CSFs to information systems management could further a company's strategic goals. Davis (1979) demonstrated that CSFs could be used to identify information systems requirements more accurately than other methods then in use. Hicks (1993) expanded upon Davis' work to demonstrate how CSFs can be used not only to identify current information systems needs, but to accurately forecast requirements as well.

Robson (1994) combined both Hicks's and Brotherton and Leslie's approaches to demonstrate how CSFs could be used to integrate information systems management with strategic management. Rockart (1979) showed how CSFs could be used for high level decision-making about information systems requirements.

Critical Success Factors in the Hospitality and Restaurant Industries

There has been a multitude of publications that examine individual factors that contribute to the success or failure of businesses but do not propose overall CSF models.

Strategic choices have been discussed. Kotler, Bowen, and Makens (1996) discussed the importance of location, of proper concept definition, and a differentiation strategy. Perry (2001) examined the importance of having a cogent business plan.

Competitive factors have also been examined as factors in determining the viability of restaurants. West and Olsen (1980) examined product relevance. Olsen, Tse, and West (1998) discussed the importance of knowledge of competitive forces.

Marketing is also seen to be important; community involvement, customer relationship management, public relations, advertising (Hambrick & Crozier, 1985), and pricing (Parsa, et al., 2005) have all been mentioned as contributing to the success of restaurant operations. Firm resources have been shown to be important, as well. These resources include firm size (Blue, Cheatham & Rushing, (1989); Gaskill, Van Auken & Manning, 1993), financial resources (Romanelli, 1989), effective training programs and employee competence (Enz, 2004), as well as employee turnover (Enz, 2004) and business agility and responsiveness to change (Williams, 1997).

Finally, the traits of owners and managers have been examined as factors contributing to the success of restaurants. These traits include leadership and values (Kouzes & Posner, 2006), business acumen and experience (Haswell and Holmes, 1989; Sharlit, 1990), and balance of work and family (Parsa, et al., 2005).

In the hospitality field a number of researchers have carried out studies to identify CSFs in particular market segments. Goldman and Eyster (1992), for instance, applied CSF theory to the negotiation of hotel food and beverage leases. Croston (1995) investigated using CSFs to identify ways to make hotels more profitable. Peacock (1995) applied CSF theory in order to define the attributes of successful hospitality managers.

Hinkin and Tracey (1998) studied the critical physical and service factors for effective meetings. Brotherton (2004a and 2004b) identified and categorized CSFs in both budget and corporate hotel operations in the United Kingdom. Hua, Chan and Mao (2009) did the same for budget hotels in China.

Table 1

Critical Success Factors

Critical Success Factors	Supporting Literature
Strategic choices	
<ul style="list-style-type: none"> • Restaurant Location • Cogent business plan 	Kotler, Bowen, and Makens (1996) Perry, 2001
Competitive factors	
<ul style="list-style-type: none"> • Product relevance • Knowledge of competitive forces • Product quality 	West and Olsen (1990) Olsen, Tse, and West (1998) Lee (1987)
Marketing	
<ul style="list-style-type: none"> • Community involvement • Customer relationship management • Public relations • Advertising • Pricing • Franchising 	Kotler, Bowen, and Makens (1996) Kotler, Bowen, and Makens (1996) Kotler, Bowen, and Makens (1996) Kotler, Bowen, and Makens (1996) Parsa, Self, Njite, and King (2005) Lee (1987)
Resources	
<ul style="list-style-type: none"> • Firm size • Financial resources • Training/employee competence • Employee turnover • Business agility/responsiveness to change 	Gaskill, Van Auken, and Manning (1993) Blue, Cheatham, and Rushing (1989) Romanelli (1989) Enz (2004) Enz (2004) Williams (1997)
Owner/Manager	
<ul style="list-style-type: none"> • Leadership/values • Experience/business acumen • Emotional (creative/destructive) 	Kouzes and Posner (2006) Sharlit (1990) Holmes (1989) Camillo, Connoly, and Kim (2008)

Camillo, et al. (2008) studied success factors for independent restaurants operating in Northern California. They concluded that emotional factors among managers

– both destructive and creative - are “a considerable influence in the viability of restaurants” and added those factors to the 2005 model proposed by Parsa, et al.

Lee (1987) identified seven key areas for industry-wide growth: product quality, franchising, adaptability, management quality, marketing, population growth, and the growth of disposable personal income. The last two factors constitute external CSFs, but the first five were included as areas for exploration in developing the model for this study. Table 1 below summarizes these success factors.

Mixed Methods Research

Mixed methods research involves the collection and analysis of both qualitative and quantitative data (Creswell & Plano Clark, 2007). The advantage of mixed methods research is it provides strengths that offset the weaknesses of both quantitative and qualitative research (Creswell & Plano Clark, 2007; Jick, 1979). The model used in this study was to explore how individuals describe a topic – in this case the set of factors critical to the success of barbecue restaurants that are peculiar to barbecue restaurants – and then to use an analysis of that information to develop a survey instrument that was later administered to a sample population, as was done by Tashiro (2002) and Ely (1995).

Mixed methods research is a relatively recent phenomenon, starting in the late 1950's (Creswell & Plano Clark, 2007). Campbell and Fiske (1959) developed a multimethod matrix to measure personality scale scores. Its use became more prominent in the 1970's as other researchers combined both qualitative and quantitative data (Jick, 1979; Sieber, 1973).

During the 1970's and 1980's the debate over the efficacy of mixed methods research centered on what Creswell and Plano Clark (2007) refer to as the "paradigm debate." Simply put, certain researchers argued that different assumptions provided the basis for qualitative and quantitative research and the data gathered could therefore not be combined (Guba & Lincoln, 1988; Smith, 1983).

A 1989 article by Greene, Caracelli, and Graham is widely considered the seminal work in laying the groundwork for mixed methods research. In it they developed a classification system of six types of mixed methods research and discussed the design decisions peculiar to each. Since then a number of researchers have created mixed methods designs, including Creswell (1994), Morgan (1998), Newman and Benz (1998), and Tashakori and Teddlie (1998). Mixed methods research has gained widespread acceptance; the National Institutes of Health (1999), for instance, have published guidelines for mixed methods research.

Creswell and Plano Clark (2007) identified four major mixed methods design templates. The first is the triangulation design, in which the purpose is to obtain "different but complementary data on the same topic." The triangulation design is a one-phase design in which the qualitative and quantitative phases are implemented at the same time and are given equal weight. Creswell and Plano Clark also identified four variants of the triangulation design: the convergence model, the data transformation model, the validating quantitative data model, and the multilevel model.

The second design template is the embedded design template in which one data set serves a supportive, secondary role in a study based primarily on the other data type. The embedded design combines the two differing data sets at the design level with one

type of data being embedded within a methodology framed by the other data type (Caracelli & Greene, 1997).

The third design template is the explanatory design, a two-phase model whose purpose is to use qualitative data in a way that builds on or explains initial quantitative results (Creswell, Plano Clark, Gutmann, & Hanson, 2003). The qualitative phase is designed so that it connects to the results of the quantitative phase.

The final template – and the one used in conducting this study – is the exploratory design. Like the explanatory design, the exploratory is a two-phase process, except in this case the qualitative methods are used to develop or inform the quantitative study (Greene, Caracelli, & Graham, 1989). Because this design begins with a qualitative study, it is best utilized as a way for exploring a particular phenomenon (Creswell, et al., 2003). This method is employed in certain circumstances where a test instrument is not available (Creswell, 1999) or to identify important variables to study quantitatively when the variables are unknown (Creswell, et al., 2003). It is also of use when researchers wish to generalize results to different groups (Morse, 1991) or to test aspects of an emergent theory (Morgan, 1998).

There exists a variant of the exploratory design known as the instrument development model (Creswell & Plano Clark, 2007). In this design the researcher uses a qualitative model to guide the development of items and scales for a quantitative survey instrument (Mak & Marshall, 2004). In the second phase the researcher implements and validates the instrument through quantitative means.

This exploratory design has a number of advantages for researchers. First, the separate, sequential phases make the design straightforward to describe, implement, and

report (Creswell & Plano Clark, 2007). Second, using quantitative methods to validate the qualitative model makes the results more acceptable to both quantitative and qualitative researchers (Morse, 1991). Finally, the design is easily applied to multiphase research (Creswell & Plano Clark, 2007).

Grounded Theory and Case Studies

Grounded theory is an approach to research that stands the traditional scientific method on its head. Rather than formulate a hypothesis to be tested by experiment or observation, grounded theory seeks data first and formulates hypotheses based on observations grounded in reality, hence the term “grounded theory” (Bogdan & Biklin, 2007). The very purpose of a grounded study is to “generate or discover a theory, an abstract analytical schema of a phenomenon that relates to a particular situation” (Glaser, 1992, p. 112). For the purposes of grounded research a theory is described as “a plausible relationship among concepts and sets of concepts” (Strauss & Corbin, 1994, p. 278). Weick (1989) draws a distinction between a theory and a good theory, saying that, “a good theory is a plausible theory, and a theory is judged to be more plausible and of higher quality if it is interesting rather than obvious, irrelevant, or absurd, obvious in novel ways, a source of unexpected connections, high in narrative rationality, aesthetically pleasing, or correspondent with presumed realities. (p. 518)”

Creswell (1998) takes a more restrictive view of what constitutes grounded theory research than do Bogdan and Biklin and Glaser. Creswell identifies five specific research traditions in qualitative research: biography, phenomenology, grounded theory, ethnography, and case study. Each of these five involves interviews and/or observations

so they all fulfill the requirements of grounded theory as Bogdan and Biklin and Glaser define it. This paper, however, will rely on Creswell's definition of a case study, so before proceeding further it is important to note that Creswell would object to the classification of case study research as an instance of grounded theory.

Creswell (1998) defines five dimensions of case study research. The first is its focus, which is to develop an in-depth analysis of a single case or multiple cases. The second is its discipline of origin, in this instance sociology and other social sciences. This makes perfect sense for this particular study, as sociology attempts to understand human behavior in the context of society, and to then generalize and predict that behavior. A restaurant is nothing if not an example of humans interacting in the context of their society, and barbecue, in particular, is a reflection of a particular society. A sociological study, therefore, is exactly what is called for when attempting to create a plausible explanation for how a barbecue restaurant would best operate.

Creswell's third dimension is that of data collection. With a case study, data is gathered from multiple sources: documents, archival records, interviews, observations, and physical artifacts. In looking at a barbecue restaurant, documents could include menus, newspaper reviews and advertisements. Archival records would be sales and attendance figures. Interviews would be conducted with operators. Observations would take place on site, and physical artifacts will be photographic evidence of décor, the neighborhood in which the restaurant is located, and the like.

This wide array of data is intended to create a very much in-depth description of the restaurant being researched. Since the goal of the research is to create a workable theory, and the elements of a good theory are that it be interesting and of high narrative

rationality, a simple survey or some other type of large scale study would not provide the depth of understanding required to make the resultant theory interesting or obvious in any novel way. It is only through the collection of this rich data that a novel, interesting, worthwhile picture of a barbecue operation can emerge.

Creswell's final dimension of case study research is that of the narrative form. Of course, the narrative form will be an in-depth study of a case or cases. If the narrative fails to go into enough depth the resultant theory will be lacking. The story told needs to be compelling enough to convince a reader that the author's conclusions have merit.

One of the drawbacks to this form of research is that, because only a few cases are investigated, it lacks generalizability (Marshall & Rossman, 2006). Further, for the same reason, qualitative research of any sort – not just case studies – has problems with reliability. We cannot be even remotely certain that a similar observation will yield similar results based on the outcome of a single observation. These concerns can be mitigated through, for instance, the use of multiple, independent observations of the same process or event. In the case of this particular research, this generalizability problem will be addressed by studying four different restaurants in four distinctly different barbecue regions. By studying a number of different restaurants, each of which adheres to a different style of barbecue, the study mitigates much of the reliability and generalizability issues associated with qualitative research.

Using Case Studies to Generate a Theory of Best Practices in Barbecue Restaurants

Certainly a compelling case can be made for using qualitative methods, rather than quantitative, for conducting business research. Once spurned by more traditional

researchers, qualitative research genres have gained increasing importance in the social sciences and in applied fields like education, nursing, community development, and management (Marshall & Rossman, 2006). Further, in this instance it is hard to imagine a quantitative technique that could provide us with even a reasonable approximation of the theory we wish to generate. The drawbacks to survey research for this purpose have already been discussed.

A good theory will attempt to answer the “journalistic” questions, and a case study, in particular, serves best to generate a good theory when no experimental control can be used in the process of data collection and when the questions of “what,” “how,” and especially “why” of a phenomenon are of most interest (Yin, 2003). The “what” of this study is already known: barbecue restaurants. The “how” and they “why” remain to be developed, and they represent the model and theory of successful operations.

Without doubt, quantitative methods will never truly be able to answer the “why” question of a good theory when it comes to the successful operation of barbecue restaurants. Only open-ended questions can allow the respondent the latitude to provide the in-depth information the researcher needs to understand why a particular business or management practice works, and once an open-ended question is introduced a qualitative judgment is necessary to interpret the response (Bogdan & Biklin, 2007). Quantitative methods can, at best, describe a model for best practices by listing those traits that successful restaurants have in common. They cannot, however, answer the more important question of why this particular list creates success. Quantitative methods can provide us with a model; qualitative methods can provide us with both a model and a theory that explains it (Creswell, 1998).

Ethnography attempts to describe and interpret the actions and motivations of a cultural or social group (Creswell, 1998). What Creswell (1998) calls grounded theory research involves the generation of theory that is grounded in data from the field. This approach involves interviews with 20 – 30 individuals to saturate categories and detail the theory being generated.

Case studies rely on interviews, but also look closely at documents and physical settings (Creswell, 1994). Further, they rely on the observations of the researcher in the environment being studied (Creswell, 1998). Each of these aspects lends greater depth to the data and makes it far more likely that the researcher will locate that novel outlook (Glaser, 1992).

Summary

To summarize, critical success factor theory is relevant to the restaurant industry, and may be used to explain the success or failure of individual restaurants. Further, no CSF model has yet been created for barbecue restaurants. Exploratory mixed-methods research is an appropriate vehicle for determining whether such a model exists. Case studies are the proper method for creating the theoretical CSF model, and quantitative methods are appropriate for testing the validity of that model.

The exploratory mixed methods template was the appropriate template for this research as it sought to not only create a test instrument where none was available, it also had to identify the variables that made up that test instrument.

CHAPTER III

QUALITATIVE METHODOLOGY

Before beginning a description of the qualitative methodology, a set of definitions will prove useful. For the purposes of this research a barbecue restaurant is defined as a restaurant where the meats are prepared under low heat for extended periods of time using wood smoke as a flavoring and curing agent. Restaurants that par boil their meats before smoking were not considered barbecue restaurants. While the overwhelming majority of barbecue cooks apply only indirect heat, the application of direct heat to the meats will not be a disqualifying factor, as a significant minority of barbecue restaurants cooks use direct heat (Mills & Tunnicliffe, 2005).

Research Design

This mixed methods study consisted of a qualitative phase followed by quantitative phase. This is known as an exploratory design; a two-phase process in which the qualitative methods are used to develop or inform the quantitative study (Greene, et al., 1989). Because this design begins with a qualitative study, it is best utilized as a way for exploring a particular phenomenon, (Creswell, et al., 2003). This method is employed in certain circumstances where a test instrument is not available (Creswell, 1999) or to identify important variables to study quantitatively when the variables are unknown (Creswell, et al., 2003). It is also of use when researchers wish to generalize results to different groups (Morse, 1991) or to test aspects of an emergent theory (Morgan, 1998).

The first part of the study, the qualitative phase, involved determining just what CSFs barbecue restaurateurs feel are peculiar to barbecue restaurants. In order to do that a

qualitative study was undertaken. The second phase, the quantitative phase, a survey was designed to test the factors identified in the qualitative phase which was then administered to patrons of barbecue restaurants and analyzed.

The Qualitative Phase

The qualitative phase was comprised of two parts. The first was a pilot study used to generate ideas regarding the key factors to look for in the more in-depth case studies that were subsequently conducted. Five case studies were then carried out at different barbecue restaurants throughout the Southeastern United States. These four restaurants were a purposive sample; they were chosen because they represented each of the major styles of cooking (Carolina, Memphis, Kansas City, and Texas), and they had all met with a good deal of success. Four of the five restaurants chosen had multiple units in various parts of the country, and the fifth, while only one unit, had met with great success marketing its sauces and dry rubs in grocery stores throughout the country. All five met the definition of success as outlined earlier; they had all been in business for a minimum of three years and were operating at a profit.

The selected definition of CSFs as the basis of the research (the most efficient and effective methods of accomplishing a task or achieving a goal, based on repeatable procedures that have proven themselves over time for a large number of organizations) highlights both the strengths and weaknesses of the methodology utilized to create the qualitative model being tested. First, the advantage of applying case study methodology to an organization is that it requires an in-depth study, using a variety of data sources, as noted above. This allowed a far greater understanding of the business processes that

constitute best practices than other types of research methodology. A simple survey, for instance, would only cite the processes and practices that the researcher already believes to be important. Even open-ended questions that allow operators latitude in responding might very well miss key aspects of organizational behavior that direct observation would note.

One key disadvantage for using case studies with this particular definition of best practices is that the definition requires that a best practice be valid across a large number of organizations. Since case studies necessarily take place one at a time, and the qualitative model included only four case studies, a survey of a large number of customers was deemed necessary to satisfy this generalizeability requirement.

Pilot Study

In order to determine just what aspects of a barbecue restaurant should be observed in order to generate a plausible qualitative model, a pilot study was conducted utilizing the services of Mike Mills, a very successful operator of barbecue restaurants; he owns four restaurants in Southern Illinois, three in Las Vegas, and is partnered with the Union Square Hospitality Group on a restaurant in New York City. He is also an accomplished competition barbecue chef, having won the grand champion award at the prestigious Memphis in May competition three times as well as both the Jack Daniels “best sauce” and “judges’ choice” awards, among many others.

An interview was conducted with Mills on October 11, 2008 at one of his restaurants in Las Vegas, located on South Rainbow Boulevard from 9:00 a.m. to 11:00 a.m. The restaurant was not open for business at the time. The format followed, first of

all, Rubin and Rubin's (2005) description of a topical interview, in that it was intended to explore the repeatable procedures Mills has developed. The goal, of course, was not to create a completed model of CSFs; but to provide insight into the sorts of question to be asked of participants in the upcoming case studies as well as an indication of the sorts of processes to be looked for in the subject restaurants of the case studies. In other words, this was an exploratory interview intended to describe one person's experience, and that one person's experience would be used as a guide for future research.

The results of this pilot study were used to create a framework for the case studies. Each of the restaurants that were subjects of the case studies was examined for the elements that Mills mentioned as being important. The operators of the case study restaurants were also asked to name factors of importance that Mills had not. Observation of operating procedures also yielded factors of significance not identified in the pilot study.

Case Studies

After completing the pilot study a series of case studies was conducted examining four different successful barbecue restaurants, each of which represented one of the four major styles of barbecue. The purpose of the case studies was to create a model describing the unique characteristics of barbecue restaurants that owners and operators believe are essential to attracting customers. This model was subsequently tested through a questionnaire administered to barbecue restaurant patrons that is the focus of this research. Hence, a description of the case studies and the model they yielded is in order.

Each case study was carried out following Creswell's (1998) methodology in which interviews, artifacts, and observations are used to define the phenomenon under consideration. Each of the case studies was conducted in the same fashion. An interview with the owner/operator of each restaurant was conducted, followed by two days of observations of each restaurant's operations. These observations included menu analysis as well as inspections of food production processes and service provision.

The interviews were semi-structured, following the model provided by Bogdan and Biklin (2007), in that the focus of the interview was on each restaurateur's individual experience, leaving as much latitude as possible in answering questions. This latitude was given because the factors identified in the pilot study might not be the only factors relevant to the interviewees and if the conversation was unnecessarily limited certain success factors might be missed.

The coding of the interviews was completed using Creswell's (1998) method of looking for meaning in each of the salient comments. Atlas TI software was used to facilitate the coding of the interviews. Each of the four interviews was coded separately and the resultant qualitative model was based on the areas of agreement among the four participants. The success factors identified in the pilot study were used as a basis for the interviews, but the interviews were not limited to those particular factors.

CHAPTER IV
QUALITATIVE RESULTS

Pilot Study

The coding of the Mills interview identified six separate codes bearing on what Mills sees as the principal components of customer satisfaction, in other words, the drivers of repeat visits. Each of the codes was identified using Creswell's (1998) method of looking for meaning in each of the salient comments. The codes identified were:

1. Regional Differences. Mills was certain that regional styles of cooking were very important within the regions themselves. He felt strongly that Texas-style barbecue, for instance, would not be successful in the Carolinas. Mr. Mills believed regional styles could be successful outside their own regions, but only in areas where barbecue is not a tradition.
2. Equipment. Mills spent much effort in evaluating different types of barbecue cooking equipment. Using a barbecue smoker that can maintain a constant temperature for an extended period of time is extremely important. Mills also identified a rotisserie feature as being important as it ensures that large quantities of product can be prepared uniformly.
3. Beverages. Mills believes that sweet tea and beer are two essential beverages for barbecue. It is his considered opinion that a barbecue restaurant cannot be successful without both. An assortment of sodas is also a requirement.
4. Competition/Organized Competition. Formal, organized competitions are an important part of Mills' world of barbecue. He is adamant that success in competition is an essential element of successful restaurant operation. Mr. Mills

believes that competition causes barbecuers to hone their skills beyond what they could achieve with only customer feedback. Further, competition allows barbecuers to create and find their best product before entering the restaurant business.

5. Awards. Taking part in organized competitions also means the possibility of winning awards, something competitive barbecue cooks take very seriously. “In that contest we took all three categories, ribs, shoulder, whole hog.” Awards also provide positive publicity. The research should determine whether the winning of awards both in competition and from other outlets (e.g., the media) aid in the creation of a successful business.
6. Side Dishes. Mills felt that certain side dishes were essential elements of a successful barbecue restaurant. In particular, he felt that no barbecue restaurant could be successful without offering baked beans, cole slaw, and potato salad.

In the interview, Mills did not touch most of the five factors noted by Lee (1987): product quality, franchising, adaptability, management quality, and marketing. Of the five it would seem, first of all, that product quality would be assumed by a restaurateur and it would be a waste of time for an interviewer to ask respondents whether they thought they served a quality product or whether their customer demanded a quality product. Still, although it seems obvious, it would not be wise to simply accept product quality as a given. Case study interviews, therefore, asked respondents about the importance of providing a quality product.

Of adaptability, Lee (1987) states that, “American tastes are fickle, and no restaurant concept remains popular on its own for very long without adapting. (p.33)”

Barbecue would seem to fly in the face of this notion. For Mills, at least, it is barbecue's long tradition that makes it appealing. It will therefore be important to ask case study participants whether they have had to modify their food or their practices to keep up with changing customer tastes.

As for franchising, the barbecue restaurant business might also run contrary to Lee's notions. Franchising could be anathema to many barbecue restaurateurs because of the highly personal nature and interest that the barbecue cooks take in their food. Barbecue cooking is an art that is not easily mastered. Many of the best barbecue cooks do not take temperatures of their meats or cooking chambers (Elie & Stewart, 2005). Teaching others to master their techniques – especially the high number of people required to franchise successfully – might prove problematic. It will therefore be interesting to determine whether franchising aids in or inhibits creation of a successful barbecue restaurant business.

Case Studies

Four restaurants were studied, and they are identified as restaurants A, B, C, and D. Restaurant A is located in a large Missouri city and serves Kansas City style barbecue. Restaurant B is in south central Virginia and serves Carolina style. Restaurant C is in northern Alabama and serves Memphis style, and Restaurant D is located in Dallas and serves Texas style barbecue.

The intent of the case studies was to follow Creswell's model to create a theory that is both interesting and of high narrative rationality. In order to do so it was necessary to find the commonalities in each of the restaurants; there are a number of common

themes running through all of them. There are also a number of themes common to three of the four. Finally, there is one common to only two, but the owners of those restaurants were adamant that this particular item (desserts) was so important to their customers that it will warrant further investigation.

Case Study Number One – Restaurant A

Restaurant specifics and service.

The Restaurant A case study centered on a barbecue restaurant company in St. Louis, Missouri that uses the Kansas City style of cooking. The company has been in business for four years and now consists of two restaurants in St. Louis along with an extensive catering operation. Company-wide sales total nearly \$10 million annually. The style of service at the restaurant is fast casual. In other words customers place orders at a counter, seat themselves at a table, and a restaurant employee delivers their meals to them. The particular restaurant studied is on a busy street in west central St. Louis and has ample parking both on the street and in a parking lot directly behind the restaurant. It shares a large brick building with one other business. There is take-out available, but no drive-through. The restaurant has a seating capacity of 80 at a combination of counter seats, individual tables, and communal seating picnic tables. Weekdays are busiest; the restaurant serves an average of 280 people per day. On weekends cover counts are down as lunch business is greatly diminished; the average is 175 per day.



Figure 1. Interior of Restaurant A.

Menu analysis.

The restaurant uses commercial smokers designed and built by Ole Hickory Pits of Cape Girardeau, Missouri, one of the leading manufacturers of commercial smokers. The restaurant offers baby back pork ribs, pulled pork, pulled chicken, beef brisket, turkey breast, and spicy sausage. No other meats or main dishes are offered, with the exception of salads, and the entrée salads are served with barbecue meats. For side dishes the restaurant offers baked beans, cole slaw, corn on the cob, sweet potato fries, green beans, apple sauce, and baked potatoes. The restaurant offers soft drinks including an array of sodas, iced tea, sweet tea, and a selection of beers. Dessert is not offered.

The restaurant offered beer as well as soft drinks. The owner stated that offering a variety of sodas – including at least one diet soda – both plain and sweet iced teas, and beer was essential to success. Bottled water was not offered.

Cooking procedures.

The meats are smoked using a mixture of hickory and apple wood at temperatures ranging from 210° f to 225° f. The meats are seasoned before being placed in the smoker and the beef and pork are covered in a thick tomato sauce ten to fifteen minutes before cooking is complete. The poultry and the sausages are not sauced during the cooking process. Ribs are smoked from four to five hours, turkey breast and chicken for approximately two hours, sausage for less than one hour, and beef briskets and pork butts for 12 – 14 hours. The tomato-based barbecue sauce is served on all tables in the restaurant.

The owner maintained that specialized commercial smokers were a necessity, but it did not matter which brand was used as long as a constant, low temperature could be maintained. The most important thing, he said, was that the temperature within the cooking chamber must remain uniform throughout and that a rotisserie style oven was best. The owner stated that cooking with a combination of hickory and apple wood was best because hickory was pungent and flavorful while fruit woods – apple wood in particular – were milder. The smoke, he felt, should be present in the meat, but should not overwhelm the flavor. Hickory alone would do that, in his opinion. A good balance of smoke is important to customers, but most important are tenderness, flavor, and moistness.

Perceptions of customers.

During the interview, the owner of the establishment stated that because St. Louis is almost equidistant from both Memphis and Kansas City, and because Memphis and Kansas City styles of cooking are so similar, he did not feel as though the style of cooking was terribly important to his customers. He did say, however, that the style had to be either Kansas City or Memphis; he did not believe his customers would want either Texas or Carolina-style barbecue.

The owner also believed the side dishes he offered were absolutely essential and that customers expected all of them when entering any barbecue restaurant. He did say that sweet potato fries were not essential, but French fried potatoes of some sort were absolutely necessary. The owner believed quite strongly that many of his customers were drawn to the restaurant because they felt the side dishes set the restaurant apart from the competition; in particular the baked beans.

Competition.

The owner himself had never been the leader of his own competition barbecue team, but he had taken part in a number of competitions as a member of teams run by other barbequers. He felt that his experience in competition was “extremely important” to his success as a restaurateur because he was able to view up close the cooking techniques of the best barbequers and learn their secrets. He was certain the barbecue produced at competitions was better than what could be produced in restaurants because competition cooks did not have to produce large quantities of food; they could pay much closer attention to the individual pieces of meat. Further, the owner stated that competitions and

catered events helped draw customers by exposing the restaurant name to a larger audience.

The proprietor did employ as pitmaster (the lead cook) a man who had been the leader of his own team and who was currently cooking in competitions under the name of the restaurant. As a competition cook this pitmaster had won a great number of awards both before and since joining this particular restaurant. The awards the owner and the pitmaster had won under various team names were displayed around the restaurant. The owner stated that customers were not attracted to the restaurant because of the awards, but the trophies and plaques displayed about the restaurant added to the atmosphere and raised the restaurant's image in the guests' eyes. The owner did not identify any factors he saw as critical to drawing customers that Mike Mills did not identify in the pilot interview.

Case Study Number Two – Restaurant B

Restaurant specifics and service.

The Restaurant B case study focused on a restaurant located in south central Virginia, less than 20 miles from the North Carolina border. This restaurant serves a Carolina style barbecue. It is one of two restaurants in the company and has been in business since 2002. The restaurant is a full service restaurant with guests being waited on at their tables by servers who take their orders, bring their food, and act as the guests' cashier. The company has a very large catering operation and the two restaurants plus catering gross over \$8 million per year. The restaurant is free-standing and has a large

parking lot directly in front of the building. There is take-out available, but no drive-through. The restaurant has a seating capacity of 92 and averages 225 covers per day.

Menu analysis.

The restaurant uses commercial smokers manufactured by Southern Pride of Marion, Illinois which, along with Ole Hickory, is one of the two leading manufacturers of commercial smokers. The restaurant offers baby back ribs, pulled chicken, and pulled pork; that is the entire selection of barbecued meats. Hamburgers and chicken fingers are also offered, as are green salads. Side dish offerings include: French fries, baked potatoes, onion rings, hushpuppies, potato salad, cole slaw, and baked beans. Desserts include fruit cobbler (one type per day) and a brownie pie.

Beer and iced tea, both plain and sweet, are essential beverage offerings, according to the owner, who believes that failure to offer any of those beverages would result in a serious loss of business.

Cooking procedures.

The meats are smoked using hickory wood only at a temperature of 225° f. The ribs are smoked for five hours, the chicken for two hours, and the pork shoulders for 16 hours. The cooking style used is Carolina style; the meats are dry rubbed 24 hours before smoking and sauce is not applied at any time during the cooking process, except for on the ribs immediately before they are removed from the smoker. The sauce itself is vinegar-based sauce just a hint of tomato. The sauce is applied to the meats just prior to serving; it also is placed on all tables in the dining room. A spicy version of the sauce is also offered.



Figure 2. Commercial smoker at Restaurant B.

Perceptions of customers.

During the interview the owner stated that his customers were very particular about the type of barbecue they were served. He did not believe his customers would respond well to other styles of barbecue. He did state that he had had success bringing his Carolina style barbecue to other parts of the country for competitions, most notably in Nevada and California. The owner stated that he viewed attending competitions as opportunities to sell barbecue rather than as opportunities to compete and/or learn. He therefore did not attend competitions that did not allow competitors to vend. The owner did state that awards from competitions were very important to attracting customers, especially at competitions and other events where he was allowed to sell; the trophies seem to pique people's interest. Added to that, he said, competitions and catered events

were outstanding advertising. Many customers were first exposed to the restaurant's products at such events.

The owner further stated that the use of commercial smokers was very important; but did not believe that customers thought so as they never see the smokers themselves. The proper equipment, he said, was far more important to producing a quality product than it was something that would draw customers in and of itself. What concerned his customers most was receiving a moist, tender barbecue.

The owner stated that this particular restaurant was a full service operation, but his second restaurant was fast casual and that all future restaurants would be fast casual. He believed that customers did not demand a full service dining experience from a barbecue restaurant; they were far more concerned with food quality, speed of service, ease of access, availability of take-out and drive-through, and comfortable surroundings.

Competition.

The owner stated that he did take part in competition, but that each competition must also provide him with an opportunity to sell barbecue in order to defray expenses. The awards he won at competition were important to him, but only insofar as his ability to display trophies at competitions would enable him to sell more product. The owner stated his reputation in the area surrounding his restaurant had been made before he got involved in competitions, so the awards he won did not help draw local customers to his restaurants. They did, however, attract attention at competitions and special events and increased his sales there. The owner also stated his success in competition and its attendant positive media coverage brought people to his restaurants from outside his local area.

Case Study Number Three – Restaurant C

Restaurant specifics and service.

Restaurant C is located in northern Alabama and is a free standing restaurant that has been in business for over seventy-five years. A second restaurant was added in Alabama in 2002 and a third was opened in North Carolina in 2008. The company also has a large catering operation. All told, annual revenues are approximately \$11 million. The restaurant itself is located on one of the busiest streets in its town and has ample parking on either side of the building. There is take-out available, but no drive-through. The seating capacity of the restaurant is 210 and averages 375 covers per day.

Menu analysis.

The restaurant offers both baby back and spare ribs, pulled pork, chicken, and beef brisket. The restaurant also offers sandwiches and steaks, although they make up a small portion of the sales. For side dishes the restaurant offers baked beans, potato salad, onion rings, three kinds of cole slaw, corn on the cob, French fries, a vegetable medley, and Brunswick stew. Beverage options include sodas, plain and sweet tea, and a variety of beers. The restaurant offers an assortment of pies and ice cream for dessert.

Cooking procedures.

The barbecue is Memphis style in that the meats are dry-rubbed, the sauce is tomato based but not thick, and the sauce is applied at the end of the cooking process before the meats are removed from the smoker. There is one important exception, however. The sauce for the chicken is a white sauce with a light cream base. The chicken is dunked in the sauce as it is removed from the smoking pit. The chicken halves are smoked in a traditional brick pit, with wood stacked and burning at one end and the meat

at the other so the application of heat is indirect. The chickens cook at about 275-300° f, depending upon how close they are to the heat source, for about one and one half hours.

The other meats on the menu – pork spare ribs, beef brisket, smoked turkey, and pork shoulder – are smoked in commercial smokers. Restaurant C uses both Ole Hickory and Southern Pride smokers. Unlike other restaurants, however, Restaurant Three does not use gas to provide heat with their commercial smokers; they use wood and only wood for both heat and flavor. As a result they use a tremendous amount of wood and require a large area behind the restaurant to store it. The restaurant uses only hickory and fruit woods – preferably apple or cherry – to smoke with. Restaurant C does control cooking temperature carefully, however, maintaining a cooking temperature of 225-230° for all its meats besides chicken.



Figure 3. Chickens cooking over indirect heat at Restaurant C.



Figure 4. Wood piles at Restaurant C.

Perceptions of customers.

The owner of Restaurant C believes that, because his restaurant is a local institution (he is the third generation of his family to operate it) it is largely immune from pressure to conform to some regional standard of cooking. The white sauce for chicken, in particular, is so well known locally that it does not matter that it will not fit into any definition of regional barbecue. The owner was concerned that the chicken, especially, would not be well received when he took his restaurant concept to North Carolina and, while initial chicken sales there were not good, it is starting to gain popularity. The other barbecued meats have been well accepted despite the sauce being somewhat thicker and higher in tomato content than what Carolina style enthusiasts are used to. Most important

to customers at all three restaurants is that the meats are moist and tender. A mustard sauce is offered at all restaurants on the table, but is not applied to any of the meats as a standard.

The owner also stated that dessert offerings were extremely important in bringing customers into his restaurant. His restaurant is famous locally for its pies; he has two employees whose only job is to make pies each day. The restaurant offers three varieties daily and about one third of all lunch customers and over half of all dinner customers order pie. They represent a significant draw.

The owner is adamant in believing the quality of the side dishes is nearly as important as the quality of meats when it comes to attracting customers. In particular, he believes that failing to offer baked beans, cole slaw, French fries, and potato salad would doom any barbecue restaurant. He also believes that offering tea, sweet tea, and beer is essential.

Competition.

A member of the owner's family (who operates the second Alabama store) competes in Memphis Barbecue Network competitions and has had a great deal of success, winning a number of national titles. This success in competition has led to a great deal of national exposure in the media, including many appearances on the Food Network. That, along with a best-selling cookbook, has helped generate a great deal of business. The owner said that he has had a large number of customers who have come to his restaurant after having seen it featured in Food Network programs; many of them come from great distances.

Many of the trophies the restaurant's competition team has won are displayed in the front of the restaurant. The owner believes that success at competitions does not act as a driver of business in and of itself, but it does contribute to a general belief among the public – and especially the media – that the product they offer is the best. This, in turn, has led to great deal of media exposure and free publicity. Taking part in competition, therefore, is seen as part of a larger marketing effort rather than as a precursor for success.

Service style and standards.

As with Restaurant B, the owner stated that he believes the future of barbecue restaurants is with the fast casual concept. His second restaurant in Alabama and the restaurant in North Carolina both utilize that concept. He believes that customers more and more require speed of service, the availability of drive-through, and a comfortable, clean dining room should they choose to dine in the restaurant. Much as he believes that barbecue is deserving of consideration as fine cuisine, he also believes the great majority of Americans will never see it as such and consequently will want a less formal environment when choosing barbecue.



Figure 5. Competition awards on display at Restaurant C.

Case Study Four – Restaurant D

Restaurant specifics and service.

Restaurant D is located in a major eastern Texas metropolitan area. It is a free standing restaurant and is one of ten in the company, nine of which are in Texas and one of which is located in Minnesota. Restaurant D itself is located on a freeway access road and is easily accessible from both the freeway on/off ramp and the major street feeding it. The restaurant sits in the front of a shopping mall parking lot; parking is ample. Annual sales for Restaurant D are just above \$2 million and company wide sales are approximately \$25 million. The total sales figure includes catering sales. All ten restaurants are fast casual in concept and all ten offer both take-out and drive-through service. The first of these restaurants opened in 1996; Restaurant D itself was opened in

2004. The seating capacity of Restaurant D is 124 and 250 covers per day are served on average.

Menu analysis.

The restaurants produce Texas style barbecue which is primarily beef brisket, although pork spare ribs figure prominently as well. The restaurant also offers pulled pork, hot link sausages, smoked ham, smoked turkey, and smoked chicken. Side dishes offered include cole slaw, baked beans, pasta salad, potato salad, black bean and corn salad, potato chips, and marinated tomatoes. Beverage service includes sodas, regular and sweet teas, and an assortment of beers. The restaurant offers “homemade” fried pies as a dessert offering in 16 different varieties, including sugar-free.

Cooking procedures.

The meats are all cooked in smokers designed and built by the owner himself. The owner maintains that by building his own smokers he meets his own specifications better than a mass manufacturer could while saving a great deal of money. The meats are cooked at 240-250° f. Briskets are cooked for 8-10 hours, ribs for 4-5 hours, poultry for about 2 hours, and hams for 3-4 hours. The smokers are heated with wood and charcoal only; no gas is used for heat. The wood used to smoke meats is mesquite in all instances. The meats themselves are not dry rubbed, except for the spare ribs and pork shoulder, and sauce is not applied at any time during the cooking process. The sauce is served as an accompaniment and is never served directly on the meats.



Figure 6. Smokers at Restaurant D.

The owner of Restaurant D (who owns all ten outlets) believes Texas barbecue customers demand beef brisket and heavier smoke than customers in other parts of the country. As a result he uses mesquite, which is more pungent than fruit woods or even hickory. He also believes that Texas barbecue customers demand sausages of some sort, preferably spicy. He further stated that he was not concerned about whether Minnesota customers would receive Texas style barbecue well as opposed to some other style as Minnesota has no tradition of barbecue.

Competition.

The owner did not have any experience with competition barbecue; before opening a restaurant barbecue was a hobby and nothing more. Obviously the owner feels that success in competition is not essential for success. He does, however, look to bring

catering trucks to large competitions and other major events as both a way to generate sales and to increase exposure.

Perceptions of customers.

The owner of Restaurant D has always believed that barbecue restaurants are best served by the fast casual concept. Drive-through and take-out services, in particular, are very important to his business. He tries to locate restaurants close to freeways and major thoroughfares in an effort to capitalize on people's desire for convenient meals that do not have to be cooked at home.

The owner stated that customers demanded meats that are both moist and tender and his cooking process provided such a product and that product was a major driver of sales. He also believes that baked beans, cole slaw, and potato salad are givens at any barbecue restaurant and the quality of each of those items will not bring in customers although he believes that poor quality side dishes will drive customers away. He did state that a unique side dish would help create business and that his black bean and corn salad generated a great deal of business for him.

The owner also stated that sodas, regular and sweet tea, and beer were all essential offerings but that they did not bring customers into the restaurants in and of themselves. Not having them, however, would keep customers away. The owner believes that a significant portion of his customers come to the restaurant primarily for the dessert offering.



Figure 7. Dining room at Restaurant D.

Common Factors Among the Case Studies

First, all four restaurant owners were adamant that above all else, barbecued meats must be moist and tender. Anything less would keep customers away. Second, they were all in agreement that the meats must be smoked and the smoke flavor must be present, but not overwhelming. Three of the four owners used either all fruit wood or a combination of hickory and fruit wood. All four were in agreement that the particular type of wood used was important to their customers.

Despite the fact that Memphis and Carolina styles are not generally associated with beef (Warnes, 2008), both the Memphis style and Carolina style restaurants studied offered beef brisket. Similarly, the Texas style restaurant offered pork and pork ribs despite the fact the Texas barbecue is more commonly associated with beef and sausage.

It would seem, therefore, that barbecue restaurants of all types must offer pork ribs, pulled pork, and beef brisket. Certainly that became part of the model to be tested. All four offered chicken while three of the four offered sausages and two offered turkey.

All were in agreement that barbecue restaurants must offer cole slaw, potato salad, baked beans, and some sort of fried potato, although there was disagreement about whether the side dishes would generate business in and of themselves or drive away business if they were not present. The same is true of beverages. All four restaurants offered a selection of sodas, plain iced tea, sweet tea, and an assortment of beers.

There was consensus that the style of cooking was important to customers, although Restaurant A believed its customers were flexible given the fact that it is equidistant from Memphis and Kansas City. Only Restaurant C had tried taking its barbecue to a different part of the country where another type of cooking held sway; they had taken Memphis style barbecue to North Carolina. Restaurant D had taken Texas barbecue to Minnesota where there was no barbecue tradition. Restaurant B had taken Carolina style barbecue to special events outside the region, but mostly in the west where no barbecue tradition exists.

All four owners were agreed that customers are more and more demanding quick service along with take-out and drive-through options. While two of the four restaurants studied were full service restaurants, all four companies had fast casual concepts and all four were in agreement that any future expansion would be in the fast casual realm.

All four owners were in agreement that the proper equipment was important to creating a quality product, but it did not contribute to customer intent to patronize as customers only saw the end product.

Three of the four owners believed awards won at competitions helped drive customers in the doors, but were not unanimous that success at competition was a precursor to success. Two of the four also believed that competitions helped them improve their products, but that customers would not see taking part in competitions per se as a reason to patronize. Of the three restaurant owners who took an active part in competition (Restaurants A, B, and C), only restaurant A had used competitions as a springboard to the restaurant business. Restaurants B and C used competitions to hone their skills and to market their restaurants. All four agreed that catering, both for private functions and at large public events, generated positive publicity and word-of mouth, and ultimately led to customer patronage. Two of the four owners believed very strongly that their dessert offerings brought customers to their restaurants.

Qualitative Success Factors Model

Based on the outcome of these case studies, a qualitative model emerged describing the factors barbecue restaurant owners believe drive customers to their restaurants. The model appears in Figure 8.

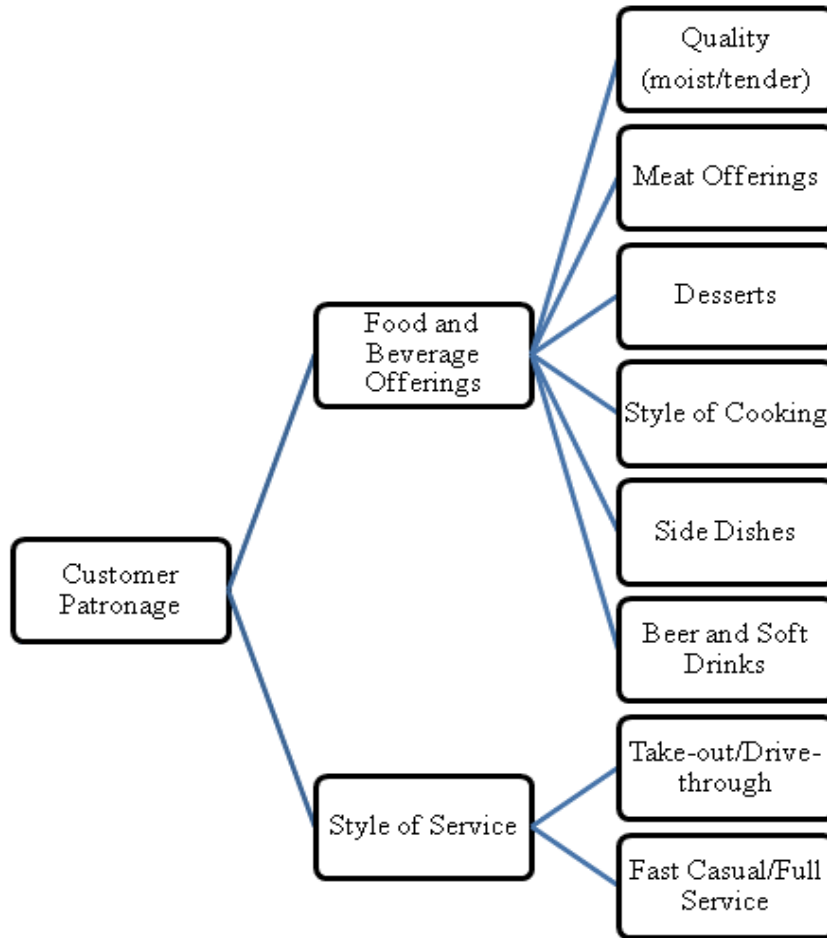


Figure 8. Qualitative model of success factors.

The model was generated by using Creswell's (1998) methodology for case studies in that it relied not only on interview data, it also utilized observations of the operation itself as well as artifacts from the locations themselves. In the case of the four restaurants studied this included photographic evidence of smoking, kitchen, and dining room facilities, menu analysis, and site inspections including evaluations of location and parking facilities. Once all four case studies were completed an analysis of the

commonalities among the four was undertaken. The model represents those factors found to be common to at least two of the four restaurants studied.

CHAPTER V

QUANTITATIVE METHODOLOGY

Survey Sample, Demographic Data, and Analysis

The quantitative analysis based on the qualitative model centered on a questionnaire administered to 469 participants, of whom 291 submitted completed responses (62.0%). For the purposes of this study a regular patron was defined as someone who had dined at a barbecue restaurant at least twice in the previous year. The survey was administered to random respondents via e-mail through Qualtrics, a commercial survey administration specialist. The respondents all belong to a group identified by Qualtrics as being willing to complete such surveys. The respondents are offered compensation to participate in the form of points which may be redeemed for merchandise and other considerations through the Qualtrics company. Being an e-mail survey, the expected response rate was low. However, since respondents had expressed an interest in taking part in Qualtrics surveys, response rates are higher than for traditional e-mail surveys which send questionnaires to purely random addresses.

Two screening questions were asked before respondents were allowed to complete the survey. The first asked if the respondent had dined at a barbecue restaurant at least twice during the previous year, and the second asked the respondent's state of residence. The actual survey questions appear in Appendix A.

The survey was designed to test each of the elements of the qualitative model created by this study (see Figure 8). Questions were asked of respondents regarding each of the elements of the qualitative model in order to measure their importance to customers. The intent was to determine whether restaurateurs agreed with their patrons

regarding the importance of the elements in the qualitative model. Prior to administration, the survey was pilot tested by giving it to a group of 20 undergraduate students at a major Southwestern state university. Pilot study participants were asked to complete the entire survey even if they had not patronized barbecue restaurants. The intent of the pilot test was to determine whether the questions were easily understood and flowed logically, not to yield any actual results. No need for clarification was found.

Demographic data were gathered including age, gender, state of residence, education, income, and number of visits to barbecue restaurants in the past year. Since the patrons of barbecue restaurants are assumed to be very loyal to local styles of cooking (Elie & Stewart, 2005; Garner, 1996; Mills & Tunnicliffe, 2005), and since residents of states with long traditions in particular cooking styles are thought to place high importance on their particular barbecue traditions (Davis & Kirk, 2010; Griffith, 2002; Warnes, 2008), the analysis considered two different survey samples: those customers in states where a particular style of cooking holds sway (North Carolina, South Carolina, Tennessee, Texas, Missouri, and Kansas) – called the barbecue states -and all other states. The survey asked questions regarding customer attitudes about the assumed success factors identified in the qualitative model.

The demographic data were examined to classify respondents not only on the region of the country they reside in, but on age, gender, and income levels. Significant differences in responses were tested for based on those criteria. Incomplete surveys were not included in the data analysis; only surveys that had all questions completed were considered, hence there were no missing values with which to contend. The survey was

designed so that no respondent could proceed to the next page in the survey without first answering all the questions on the current page.

Principal Component Analysis

Principal component analysis (PCA) is an interdependence technique, whose primary purpose is to define the underlying structure among the variables in the analysis (Hair, Black, Babin, Anderson & Tatham, 2006). PCA analysis was conducted on the entire survey sample; it was not divided into two parts (barbecue states vs. non-barbecue states) for the simple reason that if the two samples did not factor in the same way it would be impossible to compare the two groups. Comparison of the two groups was carried out through analysis of variance.

Since there were twenty-nine distinct factors being measured, the survey required 290 total responses for the strongest possible results, although a sample size of 145 would suffice. Hair, et al. (2006) state that ten responses per factor are required for strong conclusions to be drawn from factor analysis with five being minimally acceptable. Further, there should be at least five variables for each proposed factor (Hair, et al., 2006). A principle component analysis was conducted with a varimax rotation to find underlying constructs and to classify the large number of CSFs into a smaller number of dimensions. Hair, et al. (2006) suggest the use of eigenvalues of 1.00 and factor loading values of 0.4 as criteria to include factors and individual items. The CSFs to be investigated appear in Table 2.

Table 2

Critical Success Factors to be Evaluated

Food and Beverage	Service Style and Convenience
Meats <ul style="list-style-type: none">• Offerings (beef, pork, etc.)	Service style <ul style="list-style-type: none">• Full service
Meat quality <ul style="list-style-type: none">• Wood smoke (hickory, oak, etc.)• Tenderness• Moistness	<ul style="list-style-type: none">• Fast casual• Drive-through• Convenient parking• Convenient access
Desserts <ul style="list-style-type: none">• Types (pies, cakes, etc.)	
Cooking style <ul style="list-style-type: none">• Memphis, Texas, etc.• Cooking temp.	
Side dishes <ul style="list-style-type: none">• Baked beans, cole slaw, etc.	
Soft drinks <ul style="list-style-type: none">• Sodas, teas	
Alcoholic beverages <ul style="list-style-type: none">• Beer, wine, etc.	

Another of the assumptions of PCA is that first, the survey is appropriate for PCA, and second, demonstrate an intercorrelation exists among the variables (Hair, et al., 2006). In order to demonstrate the sample is appropriate for PCA it is first necessary to assess the Kaiser-Meyer-Olkin measure of sampling adequacy. Values approaching 1.0 are considered acceptable, with values greater than 0.6 minimally acceptable (Hair, et al., 2006). If the sample is found to be adequate it is then necessary to administer Bartlett's test of sphericity to determine whether an intercorrelation exists among the variables. Bartlett's test must be found to be significant at the 0.05 level (Hair, et al., 2006).

Analysis of Variance

The data were further analyzed to determine whether significant differences existed between the barbecue and non-barbecue states on each of the resultant factors and on the individual variables as well. The reason for examining these two groups separately is that barbecue restaurateurs and aficionados are of the opinion that the residents of states with barbecue traditions are fiercely loyal to their favored styles and are far more knowledgeable about barbecue than people from other areas of the country (Elie & Stewart, 2005; Englehardt, 2009; Griffith, 2002; Mills & Tunnicliffe, 2005; Warnes, 2008).

The observations were all independent, which met one of the assumptions of analysis of variance (Hair, et al., 2006). Because there are only two groups being tested, Multivariate Analysis of Variance (MANOVA) was conducted with “traditional barbecue state” being the Independent Variable (IV) and the factors identified in the factor analysis as the Dependent Variables (DVs). Significance was tested for at the 0.05 level. The survey samples meet the necessary assumptions in that the two sample groups are independent.

The samples for each group (barbecue states and non-barbecue states) must either be normally distributed or large enough so the central limit theorem holds; at least 50 responses in each group, although 75 will provide stronger results (Norusis, 2006).

CHAPTER VI
QUANTITATIVE RESULTS

Introduction

A two-part approach was taken to the data analysis. The first portion attempted to determine whether identifiable factors existed that defined CSFs for barbecue restaurants. The second portion attempted to identify significant differences in attitudes toward these factors among restaurant customers in traditional barbecue states and states without such strong barbecue traditions.

Participant Demographics

The survey was sent to 1,122 individuals of whom 469 attempted to take the survey, a response rate of 41.8%. Of the 469 who started the survey, 291 completed it, so the actual response rate was 291/1,122, or 25.9%. The 178 who failed to complete the survey were mostly eliminated because they had not patronized barbecue restaurants at least twice in the previous twelve months.

Of the respondents 144 were male (49.5%) and 147 were female (50.5%). Other demographic data appear in the Tables 3, 4, and 5.

Table 3

Respondent Demographic Data

Gender (N=291)	Frequency	Percent
Male	144	49.5
Female	147	50.5
Respondent Educational Level		
Did not complete high school	3	1.0
High school graduate	70	24.1
Some college	106	36.4
College graduate	78	26.8
Graduate degree	34	11.7
Respondent Age		
18 - 30 years	35	12.0
31 - 40 years	37	12.7
41 - 50 years	77	26.5
51 - 60 years	84	28.9
61 - 70 years	45	15.5
Above 70 years	13	4.5
Personal Income		
Under \$25,000	65	22.3
\$25,000 - \$39,999	60	20.6
\$40,000 - \$54,999	57	19.6
\$55,000 - \$69,999	43	14.8
\$70,000 - \$84,999	18	6.2
\$85,000 - \$99,999	21	7.2
\$100,000 and above	27	9.3

Respondents were also asked to report their state of residence. Texas had the highest number of respondents with 61, North Carolina was next with 32, and Tennessee had 21. The number of respondents from traditional barbecue states (Missouri, Kansas, Texas, North Carolina, South Carolina, and Tennessee) totaled 151 while respondents from the other states totaled 140.

Survey Responses

Apart from the demographic data, the survey first asked respondents to answer questions about their barbecue preferences, including how often they dine at barbecue restaurants (those who dined at barbecue restaurants fewer than twice per year were excluded), what their favorite barbecue restaurant is (if any), what their favorite style of barbecue cooking is (if any), and if they had any preference regarding which type of wood was used to smoke their barbecued meats. The results appear in tables 6 and 7.

Table 4

Respondent Barbecue Restaurant Preferences

Dining Frequency (N = 291)	Frequency	Percent
2 - 4 times per year	103	35.4
5 - 7 times per year	67	23.0
8- 10 times per year	52	17.9
More than 10 times per year	69	23.7
Total	291	100.0
Cooking Style Preference		
Kansas City	33	11.3
Texas	95	32.6
Carolina	43	14.8
Memphis	24	8.2
No preference	84	28.9
Other	12	4.1
Wood Preference		
Hickory	88	30.2
Apple / fruit wood	21	7.2
Oak	9	3.1
Mesquite	66	22.7
No preference	103	35.4
Other	4	1.4

Table 5

Responses to Survey Questions Regarding Restaurant Offerings

Statement	n	Mean	SD
BBQ restaurant should offer take-out service	291	4.12	0.91
BBQ restaurant should offer baby back pork ribs	291	4.11	1.11
BBQ restaurant should offer iced tea	291	4.00	1.08
BBQ restaurant should offer chicken	291	3.98	1.01
BBQ restaurant should offer a variety of sodas	291	3.91	1.04
BBQ restaurant should offer pork spare ribs	291	3.90	1.14
BBQ restaurant should offer baked beans	291	3.82	1.05
BBQ restaurant should offer beef brisket	291	3.79	1.11
BBQ restaurant should offer cole slaw	291	3.77	1.14
BBQ restaurant should offer full table service	291	3.75	1.03
BBQ restaurant should offer potato salad	291	3.72	1.07
BBQ restaurant should offer french fries	291	3.65	1.10
BBQ restaurant should offer desserts	291	3.61	1.03
BBQ restaurant should offer sweet tea	291	3.57	1.32
BBQ restaurant should offer beer	291	3.16	1.42
BBQ restaurant should offer pulled pork	291	3.12	1.29
BBQ restaurant should offer hard liquor	291	2.44	1.30

Respondents were also asked to name their favorite barbecue restaurant and half (147, or 50.5%) stated they did not have a favorite and of the half that did state a

preference, no one restaurant was cited more than nine times (Famous Dave's). One was cited six times (Dickey's) and one was cited four times (Corky's). No other restaurant was cited more than twice. Of the 144 responses that cited favorite barbecue restaurants, only five cited restaurants that cannot be properly considered barbecue restaurants based on this study's definition (Applebee's once, Outback Steakhouse twice, and Tony Roma's twice).

The survey asked 29 questions to test each of the elements of the qualitative model. Each of the questions was based on a five point Likert scale. The results appear in tables below. In each instance the higher the score on the 5-point scale, the more importance the respondent placed on the question item.

Principal Component Analysis - Tests of Reliability and Validity

Principal component analysis (PCA) was used on the 29 survey items to identify interpretable components of factors important to customers when choosing a barbecue restaurant. PCA is used to examine the inter-relationships among a large number of variables and then attempts to explain the variables in terms of their common underlying dimensions (Hair, Black, Babin, Anderson & Tatham, 2006). The Kaiser-Meyer-Olkin measure of sampling adequacy (0.734) and Bartlett's test of sphericity (1899.08, $p < 0005$) indicated the correlation matrix of the survey items contained a strong intercorrelation. This, combined with a large sample size ($n > 50$) and many more observations than variables, indicated the use of PCA was appropriate (Hair, et al., 2006). Further, Cronbach's alpha for the 29 survey items was 0.83, indicating the scale had a high measure of internal consistency (reliability).

Table 6

Responses to Survey Questions Regarding Restaurant Selection Criteria

Statement	n	Mean	SD
I choose my restaurant because of the quality of the meats	291	4.57	0.56
I choose my restaurant because the meat is tender	291	4.40	0.57
I choose my restaurant because the meat is moist	291	4.38	0.59
I choose my restaurant because the meats are cooked at low temperatures for a long time	291	4.07	0.85
I choose my restaurant because the meat is smoked using real wood	291	4.06	0.86
I choose my restaurant because of the quality of the side dishes	291	3.91	0.82
I choose my restaurant because of its convenient location	291	3.83	0.93
I choose my restaurant because of the style of cooking	291	3.68	0.96
I choose my restaurant because it offers convenient take-out service	291	3.39	1.14
I choose my restaurant because of convenient parking	291	3.43	0.99
I choose my restaurant because of the quality of the desserts	291	3.03	1.06
I choose my restaurant because it offers drive-through service	291	2.66	1.16

Principal component analysis (PCA) was used on the 29 survey items to identify interpretable components of critical success factors (CSFs) for barbecue restaurants. . PCA is used to examine the inter-relationships among a large number of variables and then attempts to explain the variables in terms of their common underlying dimensions (Hair, et al., 2006). The Kaiser-Meyer-Olkin measure of sampling adequacy (0.734) and Bartlett's test of sphericity (1899.08, $p < 0005$) indicated the correlation matrix of the survey items contained a strong intercorrelation. This, combined with a large sample size ($n > 50$) and many more observations than variables, indicated the use of PCA was appropriate (Hair, et al., 2006). Further, Cronbach's alpha was 0.83, indicating the scale had a high measure of internal consistency (reliability).

A varimax rotation was used to produce orthogonal component scores which minimized multicollinearity in subsequent regression equations (Hair, et al., 2006). A six-component solution explained 67.23% of the total variance and provided interpretable dimensions of customer attitudes toward CSFs in barbecue restaurants. Only 19 of the 29 variable tested loaded into factors; ten were eliminated. Principal loadings for the survey are provided in Table 11.

The first principal component explained 23.23% of the total variance and was labeled "Barbecue Quality" as the elements of the component were those things restaurateurs claimed were the elements of quality barbecue. The second component explained 12.56% of the total variance and was labeled "Convenience" because each of the four elements are convenience factors; in other words they all represent things that make the physical patronizing of the restaurant faster and/or easier. The third component explained 9.67% of the variance and was labeled "Sides" as each element represented a

side dish customers found to be important. The fourth component explained 8.07% of the variance and was labeled “Pork” because each of the elements was a form of pork available at barbecue restaurants. The fifth component explained 7.44% of the total variance and was labeled “Alcohol” because its elements were composed strictly of alcoholic beverages. The sixth, and final component explained 6.26% of the total variance and was labeled “Tea” as both elements were tea drinks.

The individual items that failed to load in any factor included: french fries, chicken, beef brisket, sodas, quality of the side dishes, style of cooking, dessert offerings, quality of desserts, and availability of full table service.

Reliability and Validity

The results of reliability analysis using coefficient alphas for the factors generated by the PCA described above are represented in Table 12. All values of alpha were calculated from the final dataset used in this dissertation with SPSS software, version 16.0. As shown in the table all alpha values for the constructs were above the minimum standard of 0.7 (Hair, et al., 2006) and were therefore suitable for further analysis.

Four of the six constructs had alphas very close to the minimum standard of 0.7, making their acceptance marginal. Still, both Hair, et al. (2006) and Malhotra (1999) find alpha values of greater than 0.7 to be acceptable; Malhotra (1999) identifies an alpha level of 0.6 as being the minimum for survey research. Based on the outcomes outlined in the above table, the reliability of the survey instrument used for this study is considered acceptable.

Content validity focuses on the degree to which an instrument assesses the relevant aspects of the conceptual domain it is intended to measure (Grimm & Yarnold, 2000). This is difficult to support for this dissertation as there are no other studies examining the phenomenon this research purports to explore. The survey instrument was designed to test a model developed for this dissertation and the research is exploratory in nature. It can therefore be said that for the purposes of this dissertation and its exploratory goals the conditions for content validity have been satisfied. The fact that the survey was found to be reliable and that convergent and discriminant validity were also supported (see below) lends credence to the notion that content validity is also present. Convergent and discriminant validity were assessed using the Pearson correlation coefficient. Convergent validity is the extent to which a measurement correlates positively with other measurements of the same construct (Malhotra, 1999). The results of the barbecue restaurant CSF subscales show evidence of intercorrelations ranging from 0.11 to 0.24. Discriminant validity measures the opposite of convergent validity in that it measures the extent to which a measure differs from other constructs from which it is supposed to differ (Malhotra, 1999). To assess discriminant validity the correlation scores from each of the constructs are compared to the alpha values shown in Table 13. The fact that the alpha coefficients are higher than their corresponding correlations provides evidence of discriminant validity (Sharma & Patterson, 1999).

Table 7

Principal Component Analysis Loadings for Barbecue Restaurant Customer Survey

Survey Item	1	2	3	4	5	6
Meat is tender	0.790					
Meat is moist	0.755					
Low temp./Long time	0.729					
Use real wood	0.714					
Quality of meats	0.702					
Convenient take-out		0.814				
Drive-through service		0.802				
Convenient parking		0.687				
Convenient location		0.671				
Cole slaw			0.793			
Baked beans			0.779			
Potato salad			0.748			
Pork spare ribs				0.845		
Baby back pork ribs				0.833		
Pulled pork				0.636		
Beer					0.896	
Liquor					0.875	
Iced tea						0.790
Sweet tea						0.736

Table 8

Descriptive Statistics and Scale Reliabilities

Construct	Mean	SD	Alpha	Number of Items
Barbecue Quality	4.30	0.52	0.81	5
Convenience	3.32	0.82	0.76	4
Sides	3.78	0.91	0.78	3
Pork	3.87	0.95	0.74	3
Alcohol	2.85	1.27	0.80	2
Tea	3.80	1.07	0.73	2

Table 9

Correlations for All Constructs

	Barbecue Quality	Convenience	Sides	Pork	Alcohol	Tea
Barbecue Quality						
Convenience	0.13*					
Sides	0.34**	0.18*				
Pork	0.28**	0.12*	0.25**			
Alcohol	0.09	0.06	0.12*	0.21**		
Tea	0.20**	0.33**	0.35**	0.19**	0.12*	

Note. * $p < .05$. ** $p < .01$.

Multivariate Analysis of Variance

Barbecue restaurateurs and aficionados are of the opinion that the residents of states with barbecue traditions are fiercely loyal to their favored styles and are far more knowledgeable about barbecue than people from other areas of the country (Elie & Stewart, 2005; Englehardt, 2009; Griffith, 2002; Mills & Tunnicliffe, 2005; Warnes, 2008). This assertion was tested by comparing the two groups of respondents via Multivariate Analysis of Variance (MANOVA). MANOVA was appropriate because there were six independent variables identified by PCA (barbecue quality, convenience, sides, pork, tea, and alcohol) and one dependent variable (state of residence – traditional barbecue state) (Hair, et al., 2006).

Data were screened for outliers, missing values, and/or response errors; no problems were found. Sampling was independent and random. The independent variable was categorical in nature; in this case it was dichotomous. A respondent was either a resident of a state with a strong barbecue tradition or was not. Further, there existed a sufficiently large number of independent random responses in each group ($n = 140$, $n = 151$) so the assumption of normality was considered to be robust to violation as dictated by the central limit theorem (Norusis, 2006).

Levene's test for homogeneity of variance was found to be not significant (all p 's > 0.05), so it was assumed the two groups had equal variances across all six factors. Wilks' Lambda was 0.893, meeting the assumption of equality of variance and covariance matrices. The results of MANOVA demonstrated statistically significant differences on two of the six factors; "barbecue quality" and "alcohol." The results appear in Table 14.

Table 10

Tests of Between-Subjects Effects: Barbecue vs. Non-Barbecue States

Factor	df	Mean Square	F	Sig.
Barbecue Quality	1	6.39	6.57	0.01*
Convenience	1	1.28	1.34	0.25
Sides	1	3.19	3.24	0.07
Pork	1	0.66	0.65	0.42
Alcohol	1	18.29	19.50	0.00**
Tea	1	1.29	1.28	0.26

Note. * $p < .05$. ** $p < .01$.

Because statistically significant differences were found it became necessary to examine the data more closely. The mean scores and standard deviations for both the barbecue and non-barbecue states on each of the six factors appear in Table 15.

Table 11

Factor Means and Standard Deviations by BBQ State

Factor	Mean (SD) - BBQ State	Mean (SD) - Non-BBQ State	Mean Difference
Barbecue Quality	4.37 (0.51)	4.21 (0.52)	0.16
Convenience	3.38 (0.86)	3.27 (0.73)	0.09
Sides	3.87 (0.86)	3.66 (0.90)	0.19
Pork	3.85 (0.94)	3.91 (0.94)	-0.06
Alcohol	2.50 (1.23)	3.13 (1.17)	-0.63
Tea	3.87 (1.20)	3.60 (1.06)	0.27

CHAPTER VII

DISCUSSION AND CONCLUSION

Summary of the Study

The purpose of this research was to test the assertion that a set of factors unique to barbecue restaurants exists that operators and customers alike agree are important in their choice of a barbecue restaurant. Specifically, the research created a set of success factors that restaurant owners/operators felt were unique to the barbecue restaurant industry through the use of case studies. It then tested that model by surveying regular customers of barbecue restaurants on each of the factors cited by the owners/operators. Because the owners/operators – as well as the existing literature - contended that residents of states with strong barbecue traditions were more knowledgeable about barbecue and more fiercely loyal to particular styles of cooking than their counterparts in other, less traditional areas, the survey results were tested to explore this notion. The goal of the study was to examine the following research questions:

1. What are the factors barbecue restaurant owners identify as being of particular importance to their customers that are specific to barbecue restaurants?
2. Does the model of success factors as described by owners of barbecue restaurants actually reflect their customers' beliefs? Specifically:
 - a. Is the style of barbecue cooking important to customers in selecting a barbecue restaurant?
 - b. Are food offerings important to customers in selecting a barbecue restaurant?

- c. Are beverage offerings important to customers in selecting a barbecue restaurant?
 - d. Are specific service options important to customers in selecting a barbecue restaurant?
3. Do residents of states with strong barbecue traditions hold dissimilar views on barbecue than residents of other states?

The study was driven by a near-total lack of academic literature on the subject as well as by its practical applications. The growth of barbecue restaurants within the United States has been dramatic and interest in barbecue as cuisine is at an all-time high (Davis & Kirk, 2009; Elie & Stewart, 2005; Mills & Tunnicliffe, 2005; Warnes, 2008). Despite this explosion in interest there has been little or no academic investigation of the barbecue phenomenon.

This study was meant to explore this phenomenon and to lay the groundwork for a more in-depth investigation of barbecue restaurants and their customers. A two-part approach was taken. The first part consisted of a qualitative examination of four barbecue restaurants chosen specifically for a combination of specific qualities. First, they were all successful, having been in business for a minimum specified period of time. Second, each restaurant utilized one of the four distinct styles of barbecue cooking and no two restaurants studied used the same.

Case studies were conducted at each restaurant following Creswell's (1998) model of case study research. This method was chosen because it allowed the overall research design to follow Creswell & Plano Clark's (2007) mixed methods design,

specifically the exploratory design and its concomitant instrument development model. The case study research developed the qualitative model described in Chapter IV.

The quantitative portion of the mixed methods research consisted of a survey built around questions designed to test each of the elements of the qualitative model. The survey was administered to a random sample identified by Qualtrics, a commercial survey and data-gathering firm. The sample was selected from Qualtrics' database of people who had displayed a willingness to complete surveys of this nature. The participants were compensated in the form of points that could be redeemed for merchandise through the Qualtrics company.

The participants in the survey were asked two screening questions. The first was to determine whether they were regular customers of barbecue restaurants. If the participant had not patronized a barbecue restaurant at least twice in the previous year participation in the survey was discontinued. The second screening question was asked to ensure the participant was a resident of the United States. This was done to ensure that each participant could be classified as either a resident of a traditional barbecue state or some other state.

The survey instrument itself was created to test the qualitative model developed specifically for this research. There was no existing survey on which to base the survey utilized for this research. The survey was pilot tested for clarity and found to be easily understood by participants.

Once the survey results were gathered quantitative assessment ensued. The first step was to generate descriptive statistics for the survey elements. A principal component analysis was then conducted to identify interpretable components of critical success

factors (CSFs) for barbecue restaurants. PCA is used to examine the inter-relationships among a large number of variables and then attempts to explain the variables in terms of their common underlying dimensions (Hair, Black, Babin, Anderson, & Tatham, 2006). The factors were named, and the factor scores were used as the dependent variables in the MANOVA analysis which compared residents of states with strong barbecue traditions to residents of states without that tradition on each of the identified factors.

General Discussion

There was fairly broad agreement among participants about the importance of a number of factors, but many of the things on which restaurateurs placed a great deal of importance were either unimportant to respondents or respondents were divided in their loyalties. For instance, while a plurality of respondents expressed a preference for Texas-style barbecue (32.6%), almost as many (28.9%) expressed no preference at all. Of those who did express a preference, however, almost as many chose Texas-style as the other three styles combined (34.3%). This number was affected by the high number of respondents from the state of Texas (61, or 20.9%).

While it is assumed that respondents are aware of the differences among the various styles of barbecue cooking, they were offered the option of “no preference” when answering this particular question. It is assumed that if they were not familiar with the differences among the particular styles they would have selected “no preference.”

Respondents were even more divided on the question of which type of wood should be used for smoking barbecued meats. Hickory and mesquite were clear choices over fruit woods and oak, but neither was identified by respondents more than “no

preference.” This calls into question the notion on the part of restaurateurs that the type of wood used in the cooking process is important to customers.

Demographically, respondents were fairly evenly distributed among age, gender, income, and education strata. While this distribution was not quite a reflection of the American population as a whole, the research was not meant to survey the general American population. Rather, the purpose was to survey regular patrons of barbecue restaurants. The fact that respondents were scattered well across these demographic boundaries demonstrates that barbecue may well have cast off the stigma of being a lower class cuisine (Warnes, 2008).

The sample did, however, seem to be skewed toward the middle-aged; 55.4% of respondents were between the ages of 41 and 60. While this is not an accurate reflection of the population at large, it is impossible to determine whether this sample represents an accurate reflection of barbecue restaurant patrons as not studies have been conducted in this area. Income distribution of respondents seems to mirror the general population more accurately, with 65% of individuals in the United States having personal incomes of less than \$50,000 annually (United States Census Bureau, 2010), and 54.4% of respondents reporting personal incomes of less than \$55,000.

When asked about whether barbecue restaurants should offer certain types of food, beverages, and services, respondents agreed overwhelmingly with owners as to the importance of offering a variety of meats, side dishes, beverages, and services. The only element restaurateurs thought important that respondents did not was hard liquor (mean = 2.44). All other items restaurateurs identified as being important had an average score of higher than 3.0 on a 5-point Likert scale (see Table 9).

When asked the principal reason why they chose a particular barbecue restaurant respondents placed the greatest importance on the quality of the meats, with all five questions regarding quality of meat preparation averaging over 4.0 on a 5-point Likert scale. Convenience factors (except for drive-through service) and food quality factors also rated highly. In particular, the quality of the barbecued meats was rated by respondents as the single most important factor in selecting a barbecue restaurant with an average score of 4.57 on the 5-point Likert scale.

Each of the first six research questions tested whether barbecue restaurant customers agreed with operators regarding the importance of certain factors in customers' choice of barbecue restaurants. While the results of the survey showed there exists broad agreement on almost all of the elements named by restaurateurs as being important, a deeper examination of the data shows some very interesting results. The six factors revealed by the PCA show there is a common underlying dimension to each of the elements of a given factor. The first factor – barbecue quality – was unique in that all survey questions used to measure that particular construct loaded as factors when PCA was complete. Customers and owners alike agree that barbecued meats should be moist, tender, cooked at low temperatures for extended periods, use real wood as a flavoring agent, and be of high quality.

The next-most important factor for respondents in selecting a barbecue restaurant identified by PCA is the convenience factor. In particular, respondents identified convenient take-out service, drive-through service, convenient parking, and a convenient location as being important. It is interesting to note that, of the service factors, offering table service did not load as part of this particular factor.

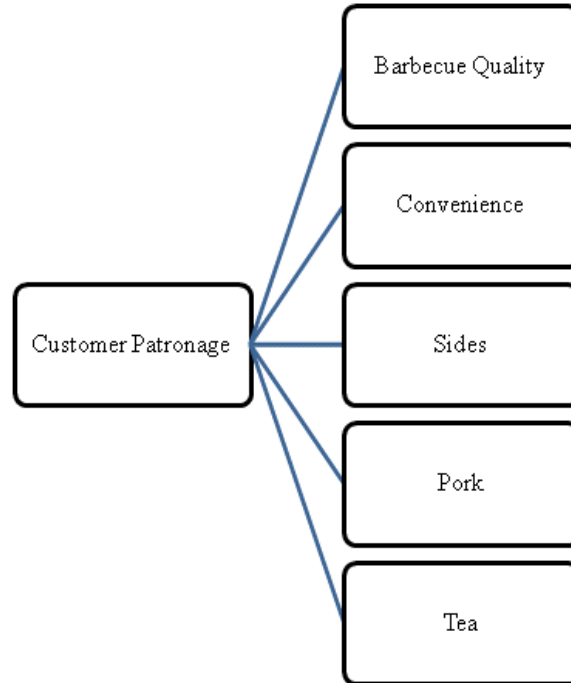


Figure 9: Refined model of success factors

The third factor identified was side dishes, in particular cole slaw, potato salad, and baked beans. French fries failed to load as part of this particular factor as well as the quality of the side dishes. While both french fries and the quality of the side dishes were rated as important by respondents (means of 3.65 and 3.91, respectively), neither was seen as being as important as the three items that loaded in the factor.

The fourth factor identified was pork. Interestingly, while chicken and beef brisket were seen by respondents as being very important offerings at barbecue restaurants (means of 3.98 and 3.79, respectively) they did not load as part of the factor. This would suggest that, while customers feel that chicken and beef are important elements of any barbecue offering, pork is the meat most closely associated with barbecue in their minds. Taken in conjunction with the high importance customers place

on the quality of the barbecued meats and the high mean scores for both baby back and spare ribs, it would seem that the quality of pork ribs is the single most important factor in explaining why customers choose the barbecue restaurants they do.

Alcoholic beverages also factored, but a closer examination of the data would suggest that, although respondents were fairly united in how they think about alcoholic beverages in relation to barbecue restaurants, they do not place much importance on them. The mean scores for beer and hard liquor were 3.16 and 2.44, respectively. A score of 3.16 is only slightly above indifference, while a score of 2.44 demonstrates that customers do not feel it is important for their barbecue restaurants to offer liquor.

Finally, tea drinks also factored, with sweet tea and iced tea being found to be considerations in respondents' choice of barbecue restaurants. While offering soda was seen to be important, it did not load as a factor, suggesting that customers associate tea more closely with barbecue than other soft drinks.

Based on the outcome of the PCA and the subsequent rejection of alcoholic beverages as a factor, the qualitative model that appeared in Figure 8 was amended to more accurately reflect the opinions of barbecue restaurant customers. That new model appears in Figure 9 above.

When comparing the two subsets of customers – those from states with strong barbecue traditions and those from states without such a tradition – there was agreement on four of the six factors. MANOVA revealed statistically significant differences between the two groups on two of the factors, barbecue quality and alcoholic beverages. While these differences may be statistically significant, however, a closer examination of the numbers demonstrates that practically there is little or no difference. For the barbecue

quality factor, the mean score for residents of barbecue states was 4.37 on the 5-point Likert scale, while the mean for residents of non-barbecue states was 4.21. Both groups obviously place a great deal of importance on the quality of the barbecued meats available, so no importance is placed on the statistical difference.

For alcoholic beverages residents of barbecue states place very little importance on their being offered, with a mean score of 2.5 on the 5-point Likert scale. Residents of non-barbecue states do place a bit of importance on alcoholic beverage offerings – the mean score for this group was 3.13 – but that level is only slightly higher than indifference.

Critical success factors for barbecue restaurants differ from those of other restaurants in a number of ways. First the quality of the food offerings is judged by patrons in ways that are distinct to the type of cuisine being offered. Second, while restaurant location is an important element of restaurant success (Kotler, Bowen, & Makens, 2006), the availability of certain convenience factors – specifically take-out and drive-through service – is very important to barbecue restaurant patrons. This distinguishes barbecue restaurants from other types of restaurants because, even though the availability of full table service did not factor during PCA, customers did state its availability is important (mean = 3.75). Barbecue restaurant patrons, therefore, desire a wider variety of service options than patrons of other types of restaurants.

Patrons are also demanding of very particular food and beverage offerings. Iced tea and sweet tea are apparently an integral part of the barbecue experience. Most importantly, however, barbecue is closely identified with pork, particularly pork ribs,

even among those who prefer Texas-style barbecue, which is not usually associated with pork.

Implications of Findings

For barbecue restaurateurs there are a number of findings of interest in this study. First, while restaurateurs already identified the quality of their barbecued meats as being paramount, they do not necessarily place their focus on their pork offerings. Even though Texas-style barbecue was identified by nearly one third of respondents as their favorite type of barbecue, and even though Texas-style barbecue is closely associated with beef brisket (Englehardt, 2009; Griffith, 2002; Raichlen, 2008), beef failed to load as a factor during PCA. Chicken, while important, also did not load as a factor during PCA. This would suggest that pork, in particular, is most closely associated with barbecue in the minds of restaurant customers. Therefore it is with pork – ribs especially and baby back ribs particularly – that restaurateurs should focus their primary efforts.

Restaurateurs must also ensure that available side dishes include baked beans, cole slaw, and potato salad. These are seen by customers as being closely associated with barbecue and therefore, essential offerings. Interestingly, the quality of the side dishes did not load as part of a factor during PCA. Since the mean score for side dish quality (3.91) was rather high, this would suggest that customers feel the quality of these side dishes is a given and that quality does not vary much from restaurant to restaurant. For operators, therefore, if they can ensure that these dishes are of a certain minimal quality that customers receive elsewhere, there does not need to be much emphasis placed on these offerings.

Convenience was the second most important factor loading during PCA. This is of great importance for operators when choosing locations for new restaurants. Customers place higher importance on these convenience factors than even the quality of side dishes and all other non-barbecue foods. A good location with easy access is an essential element of success for operators. While this agrees with previous findings in studies of restaurants in general, the added element of convenient take-out and drive-through service being important to barbecue restaurant patrons distinguishes barbecue restaurants from other types of operations. Barbecue restaurant patrons desire elements of quick service restaurant convenience as well as elements of a full service dining experience.

While it is important for restaurateurs to offer an array of soft drinks that includes iced tea and sweet tea, these beverage offerings are fairly ubiquitous among barbecue restaurants and are probably not drivers of customers' choices. It is enough to offer them.

Perhaps the most important finding for operators is that this research calls into question the notion that residents of traditional barbecue states are more knowledgeable and therefore more discerning about barbecue. The things residents of barbecue states find to be important are the same things residents of non-barbecue states find important. As barbecue restaurants continue to grow in popularity, and as more and more operators move into regions with no barbecue tradition, they will be well advised to remember their customers in these regions are just as discerning as customers in the Carolinas, Texas, or Tennessee.

This finding that customers are just as savvy about barbecue in non-traditional states as they are in traditional barbecue states is of interest to researchers as well, and

supports the notion that barbecue restaurants should be considered a separate segment of the restaurant industry, as barbecue represents more than simply a regional phenomenon. Further, because customers expect foods prepared using very particular methods and very specific food offerings when choosing barbecue restaurants, barbecue restaurants are deserving of consideration as a particular segment of the restaurant industry for research purposes.

Researchers will also want to look more closely at the growth of barbecue from a regional to a national phenomenon. There are a number of regional American cuisines, not to mention a large number of non-native ethnic cuisines, which have achieved a great deal of regional popularity (Cajun, Low Country, Vietnamese, e.g.). Examining how barbecue moved from being a regional to a national phenomenon could help restaurant operators in these other areas achieve success outside their own regions.

Limitations of the Study

This study was exploratory in nature and was only a first attempt at researching the barbecue restaurant as a separate segment of the restaurant industry. It therefore suffered from certain limitations. Principal among these was the limited number of case studies conducted before the generation of the qualitative model. While the survey demonstrated a high level of agreement between restaurateurs and their customers on the specifics of that qualitative model, it is possible that further case studies will reveal success factors not uncovered by the four case studies undertaken for this research. Survey respondents cannot confirm the existence of factors they were never asked about. As an example, there are certain food items – onion straws and macaroni and cheese, for

instance – that to a casual observer seem ubiquitous at barbecue restaurants. These items, however, did not appear on the menus of the majority of restaurants in the case studies. It is quite possible that these items are important to customers in choosing a restaurant.

The survey sample may also have suffered from certain types of bias. The people identified by Qualtrics for the purposes of taking their surveys may not be a representative sample of the general population, as they are people who have displayed not only a willingness to be involved in surveys, but an eagerness to take part. Further, respondents are compensated for their time and may respond to questions in ways to increase the points awarded for their participation. For instance, reasonable people might deduce that a survey of barbecue restaurant patrons that first asks how often the respondent visits barbecue restaurants might not allow them to continue if they respond that they do not patronize such restaurants. Therefore they might say they do when they do not in order to increase their participation rate in Qualtrics surveys and increase their compensation.

The data for the survey responses was self-reported and might be subject to biases like auspices bias (the tendency for respondents to give answers they feel will be pleasing to the survey-taker), but since the topic covered is not sensitive nor does it carry any social stigma, the chance of incurring such bias is limited. The survey was pilot tested to limit the possibility of ambiguous, leading, or double-barreled questions. Some of the survey questions themselves were also found to be somewhat ambiguous. For instance, the questions regarding convenience factors all used the word “convenient” except for the question regarding drive-through service. These questions should have been asked in precisely the same way.

The research was concerned only with traditional barbecue states as a single unit while the popular literature maintains that these states' traditions are unique. While these traditions may be distinct, their most important aspects of barbecue cross the boundaries of all traditional styles (cooking at low temperatures for extended periods, smoking with wood, etc.). It is possible that differences exist among the traditional barbecue states.

Finally, it is important to note the author worked in the barbecue restaurant industry for nearly ten years before leaving to pursue an academic career. This familiarity with the industry may well have influenced his own judgment regarding what is important to barbecue restaurant customers.

Implications for Future Research

The results of this study indicate that barbecue restaurants are a field ripe for study. The study was very limited in its examination of sub-groups within the barbecue culture. Deeper examination of the significant differences – if any – among these traditions that could possibly affect consumer choices may provide results of interest to academicians and operators alike.

Further case study research is clearly called for in order to refine the qualitative model developed in this study. Certainly the qualitative model needs to be amended to more accurately reflect the outcome of the principal component analysis. The qualitative model considered only two factors while PCA revealed six, four of which were of high importance to restaurant customers. Also, because the number of case studies was limited it is possible certain existing success factors were not brought to light; further study may reveal new ones.

Finally, since support exists for consideration of barbecue restaurants a distinct segment of the restaurant industry, the entire realm of restaurant research is now open to a new field. Any of the myriad applications of business research may now be considered for a segment of the restaurant industry that has never before been considered distinct.

Conclusion

The results of this study add to the body of knowledge by extending CSF theory to a new segment of the restaurant industry and identifying CSFs that are unique to that segment. However, due to its exploratory nature and the recent identification of barbecue restaurants as a distinct segment of the industry, this research draws attention to the necessity for further examination of the barbecue restaurant industry. Further studies are clearly called for into this multi-billion dollar industry.

APPENDIX

QUALTRICS SURVEY



INVESTIGATOR(S): Patrick Moreo, Ed.D and John Farrish, MS

CONTACT PHONE NUMBER: (702) 417-4890

Purpose of the Study

You are invited to participate in a research study. The purpose of this study is to determine whether barbecue restaurateurs understand what their customers find important in choosing a barbecue restaurant.

Participants

You are being asked to participate in the study because you fit this criteria: You have patronized barbecue restaurants.

Procedures

If you volunteer to participate in this study, you will be asked to do the following: Complete the following survey.

Benefits of Participation

There will be no direct benefits to you as a participant in this study. However, we hope to learn how to serve you better the next time you choose to dine at a barbecue restaurant.

Risks of Participation

There are risks involved in all research studies. The risks associated with this study are minimal.

If at

any time the questions asked in this survey make you feel uncomfortable you may simply choose not to

continue answering questions.

Cost /Compensation

There is no financial cost to you to participate in this study. The study will take 15 minutes of your time. You will be compensated for your time in the usual manner by your panel provider.

Contact Information

If you have any questions or concerns about the study, you may contact John Farrish at (702) 417-4890. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for five years after completion of the study. After the storage time the information gathered will be destroyed.

Participant Consent:

I have read the above information and agree to participate in this study. I am at least 18 years of age.

A copy of this form has been given to me.

I am at least 18 years of age and agree to participate

No thanks/ I am not over 18



⊗ If No thanks/ I am not over 18 Is Selected, Then Skip To End of BlockEdit

Q1

I dine at barbecue restaurants:

- Less than twice a year
- 2 - 4 times per year
- 5 - 7 times per year
- 8 - 10 times per year
- More than 10 times per year

Q2

My state of residence is:

[Click here to edit choices](#)

My favorite barbecue restaurant is:

I have no favorite

My favorite is:

Q5

My favorite style of barbecue is:

Kansas City style

Memphis style

Texas style

No preference

Carolina style

Other

Q8

I prefer my barbecued meats to be smoked using this type of wood:

- Hickory
- Apple or other fruit woods
- Oak
- Mesquite
- No preference
- Other

Q9

Please rate the following based on how important they are when choosing a barbecue restaurant:

	Not Important	Somewhat Important	Neither Important nor Unimportant	Important	Very Important
The barbecue restaurant should offer pulled pork.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer beef brisket.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer baby back pork ribs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The restaurant should offer pork spare ribs .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer chicken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer baked beans.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not Important	Somewhat Important	Neither Important nor Unimportant	Important	Very Important
The barbecue restaurant should offer cole slaw.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer potato salad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer french fries.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer a variety of sodas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer iced tea.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer sweet tea.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To show you are reading select "Important" as your answer to this statement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer beer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer hard liquor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not Important	Somewhat Important	Neither Important nor Unimportant	Important	Very Important
The barbecue restaurant should offer desserts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer full table service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The barbecue restaurant should offer take-out service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



If To show you are reading sel... Is Not Selected, Then Skip To End of Block

Edit

Q10



Please answer the following questions about why you choose your favorite barbecue restaurant:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I choose my restaurant because the meat is tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because the meat is moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because they smoke the meats using real wood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I choose my restaurant because they cook the meats at low temperatures for a long time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of the quality of the meats.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of the quality of the side dishes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of the quality of the desserts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of the style of cooking (Kansas City, Memphis, Texas, Carolina).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because it offers drive-through service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because it offers convenient take-out service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of its convenient location.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I choose my restaurant because of convenient parking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11

I am in the following age group:

- Under 18 Years
- 18 - 30 years
- 31 - 40 years
- 41 - 50 years
- 51 - 60 years
- 61 -70 years
- Above 70 years

Q12

My education is (check highest level completed):

- Did not complete high school
- High school graduate
- Some college
- College graduate
- Graduate degree (Master's, MD, PhD, etc.)

Q13

I am:

- Male
- Female

Q14

My annual personal income is:

- Under \$25,000
- \$25,000 - \$39,999
- \$40,000 - \$54,999
- \$55,000 - \$69,999
- \$70,000 - \$84,999
- \$85,000 - \$99,999
- \$100,000 and above

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