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## **LOCAL FOODS PURCHASING IN THE FARMERS' MARKET CHANNEL: VALUE-ATTITUDE-BEHAVIOR THEORY**

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I am submitting herewith a dissertation written by Christopher Thomas Sneed entitled "LOCAL FOODS PURCHASING IN THE FARMERS' MARKET CHANNEL: VALUE-ATTITUDE-BEHAVIOR THEORY." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Retail, Hospitality, and Tourism Management.

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(Original signatures are on file with official student records.)

**LOCAL FOODS PURCHASING IN THE  
FARMERS' MARKET CHANNEL: VALUE-ATTITUDE-BEHAVIOR  
THEORY**

A Dissertation Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Christopher Thomas Sneed  
December 2014

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## DEDICATION

*"And when in scenes of glory I sing [a] new, new song  
'Twill be the old, old story that I have loved so long"*  
Katherine Hankey, 1834 - 1911

### In Loving Memory

Signor Jones Mattson  
*Great Grandfather*  
(1903 – 1978)

Mary Louise "Molly" Lawson  
*Great Grandmother*  
(1887 – 1979)

William Thomas Sneed  
*"Papaw"*  
(1921 – 1981)

Katherine Elizabeth Frazier  
*"Granny Frazier"*  
(1915 – 1986)

Sandra Louise Gunter  
*"Aunt Sandra"*  
(1948 – 1993)

Ollie Mae Mattson  
*"Granny Mattson"*  
(1907 – 1995)

Harry Frazier Jr.  
*"Papaw"*  
(1918 – 1999)

Florence Mildred Burns  
*"Aunt Florence"*  
(1918 – 2002)

## ABSTRACT

From farmers' market booths to kitchen tables, demand for locally-produced foods has increased significantly over the last decade. Yet, despite increasing popularity of local foods, theoretically-based research of this topic has just begun.

This study fills this gap in literature and broadens the current research base by utilizing Value-Attitude-Behavior Theory to explore local foods purchasing in the farmers' market channel. The impact of four values (food novelty, food safety, civic engagement, and environmental concern) on consumers' attitudes regarding farmers' market design perceptions, farmers' market social perceptions, and local foods quality perceptions are examined. In turn, the impact of these attitudes on purchase intention and word-of-mouth communications is explored.

A web-based, self-administered survey was used in collecting data from a consumer panel of 485 respondents. Through statistical testing using SPSS, a demographic overview of the sample is provided. Additionally, through the use of AMOS and structural equation modeling, research hypotheses are tested.

Data analysis reveals all values significantly impact at least one attitudinal construct. The values of food novelty and food safety had the greatest influence positively impacting attitudes toward farmers' market design perceptions and local foods quality perceptions. All three attitudinal constructs positively impacted consumers' word-of-mouth communications regarding the farmers' market. Additionally, attitudes toward farmers' market social perceptions and local foods quality perceptions positively impacted consumers' purchase intention. Consumers' attitudes toward the quality of

the local foods offered at the farmers' market had the greatest influence on purchase intention and word-of-mouth communications.

The study concludes with a discussion of limitations as well as the potential of the limitations to serve as springboards for future research. Implications for local foods producers, farmers' market managers, and Extension educators working with local foods producers and consumers are presented.

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## CHAPTER I INTRODUCTION

From farmers' market booths to kitchen tables, the demand for locally-produced foods has increased significantly over the last decade (Adams & Salois, 2010).

Attributed to larger social concerns over food security and safety, diminishing small- and medium-size farm production, bioregionalism, and corporate activism, local foods have become a popular staple among a growing segment of today's consumers who seek improved quality, healthiness, and variety in their food purchases (Verbeke, 2005; Guptill & Wilkins, 2002). What began as an alternative to "big agriculture" and conventional food supply chains has escalated into a local foods movement of mounting proportion.

Despite the increasing popularity of local foods, theoretically-based research studies of this topic have just begun. Of the existing studies most are qualitative, descriptive in nature, or lacking in their ability to test simultaneous relationships (Campbell, 2011). Furthermore and perhaps most germane to this study is the paucity of theoretically-based research which exists exploring local foods purchasing in the farmers' market channel. This study seeks to fill these gaps in the literature and broaden the current research base by utilizing Value-Attitude-Behavior theory to better understand the drivers of local foods purchasing among farmers' market consumers.

### **Evolution of the Local Foods Movement**

The term "local" has become entangled in the foods lexicon often used interchangeably and incorrectly with such terms as organic and sustainable. By tracing the chronology of organic and local foods, Trivette (2012), is able to situate local foods in a historical context offering insight as to how local foods evolved to become part of

the sustainable foods movement. A brief overview of sustainable, organic, and local foods, outlined below, sheds light on the distinct nature of these related concepts.

Sustainable food represents less of a foods movement and more of a general descriptor indicative of the means by which consumers believe organic and local foods are produced. According to Trivette (2012), sustainable food is best conceptualized as an overarching concept. As such, this concept couches a variety of food movements including the organic foods movement and local foods movement.

Organic food, introduced in the late 1940s, has the designation of being first in the line of sustainable foods movement (Duram, 2010). Beginning with the introduction of the first organic brand in 1946, organic foods received increasing attention among a small, yet growing consumer group. This attention reached a precipice with the United States Department of Agriculture (USDA) publishing its first organic federal report in the 1980s. This was quickly followed by the establishment of the Organic Trade Association in 1985 and the enactment of the Organic Foods Production Act (OFPA) in 1990. (The OFPA served to establish uniform national standards for the production and handling of foods labeled as organic.) Fueled in part by the commercialization of the organic “brand”, the momentum of the organic foods movement continued to grow resulting in \$1 billion in organic sales in the 1990s and over \$23 billion in organic product sales in 2008 (Duram, 2010).

As the organic foods movement grew, a grassroots focus on local foods (facilitated in part by the increasing commercialization of organic foods and industrialization of the organic foods process) began to emerge (Zepeda & Deal, 2009). No specific date marks the official introduction of the term local into the foods

lexicon. Yet, a year frequently referenced as noteworthy is 1994. This is the year the USDA Agricultural Marketing Service gave attention (alibet indirectly) to local foods with their initial data collection on operating farmers' markets in the United States. This focus on local foods has continued with the USDA documenting steady growth in farmers' markets - a growth estimated at 7864 operational farmers' markets in 2012 (USDA, 2012).

While there exists no single statistic fully capturing the increase in local foods consumption, the popularity surge associated with purchasing locally is readily evident in the increased number of farmers' markets, community supported agriculture (CSA) programs, and grocery store chains offering locally-grown products (Halweil, 2002). The number of farmers' markets (a primary purvey of local foods) dotting the food landscape has increased substantially from 1,755 in 1994 to 8,268 in 2014 (USDA, 2014). Additionally, Community Supported Agriculture (CSA)'s, an unmistakable outlet for local foods purchasing, have increased dramatically over the past 20 years from fewer than five in the 1980's to over 3,200 in 2010 (Lass, Stevenson, Hendrickson, & Ruhf, 2003; LocalHarvest, Inc., 2011). Began in the 1980's, CSA's are an alternative form of food distribution. At the onset of the growing season, the consumer purchases a share of a producer's anticipated harvest. In exchange for their share purchase, consumers are provided weekly boxes of vegetables and fruits harvested by the producer.

Finally, the substantial value of local foods in the US market has caught the attention of grocery store chains who have sought to capitalize on the local foods momentum through marketing programs and supply arrangements with local producers. The emergent importance of local foods to the grocery industry is echoed by the

National Association of Specialty Food Trade who assert “local” as being the most influential product claim in 2012 (Voight, 2012).

### **Local Foods Definitions**

A precise, commonly agreed upon definition of local does not exist.

Consequently, the definition of local is “fluid” - open to variance amongst regions, companies, and even consumers (Hinrichs, 2003). The lack of a clear definition presents a stumbling block in the analysis of local foods demand (Zepeda & Li, 2006), leading to diverse operationalizations of the term local within the research literature: *Government Definition.* According to the US Congress, in order for an agricultural product to be considered local, the total distance the product travels from origin to market must be less than 400 miles or within the state of production (HR 2419, 2008). However, unlike other food labels (e.g. - organic - standardized under the Organic Foods Production Act of 1990) a universally enforced rubric designating a product as local does not exist.

*Geographic Definition.* While the very nature of local foods almost necessitates a connotation based on geographic distance, such distance is not easy to conceptualize or define (Hand, Martinez, Da Pra, Pollack, Ralston, Smith, Vogel, Clark, Lohr, Low, & Newman, 2010). The two predominate means of conceptualizing geographic distance include the use of geo-political boundaries (city, community, county) and driving distance (50 miles, 100 miles). The use of one conceptualization over another varies across studies and consumer groups. According to Harris, Burrell, Mercer, Oslund, & Rose (2000), consumers within their study opted to define local foods as that food grown within their county or neighboring county. In a later study, Zepeda and Leviten-



Reid (2004) found that many African American food shoppers and some organic food shoppers preferred this same means of defining local. However, for the majority of consumers in their study, local was best conceptualized based on driving distance and not geographic boundaries.

*Credence Definition.* As a final note, the complexity in defining local foods is compounded by the additional attributes consumers ascribe to the term local.

According to Darby, Batte, Ernst, & Roe (2006) such attributes include freshness, quality, healthiness, and variety. In spite of consumers' inability to definitively verify such attributes, they have been found to impact purchasing intention (Schroeder, Tonsor, Pennings, & Mintert, 2007). Under these circumstances, verification of these attributes becomes a matter of credibility and trust between the consumer and the vendor of the local foods item (Brunsø, Fjord, & Grunert, 2002).

For this study, consumers are given a specific definition of local foods with local foods being defined as those food items produced within 100 miles of the consumers' residence. This means of defining local is in keeping with previous research works (Hartman Group, 2008; Campbell, 2011; and Wise, Sneed, Velandia, Berry, Rhea, & Fairhurst, 2013) and offers a standard point of reference for respondents as they complete the survey.

### **Farmers' Markets**

Consumer research in the farmers' market channel is still in its infancy. Of the research literature available, most track demographically the number of farmers' markets in operation, identify vendor composition, or describe the organizational structures responsible for the management of the markets (Byker, Shanks, Misyak, &

Serrano, 2012; Payne, 2002). Though initial attempts have been made to study farmers' markets and farmers' market consumers in greater detail (Andreatta & Wickliffe, 2002; Stephenson, Lev, & Brewer, 2008), these efforts are often challenged by the wide variance of size, scope, and format across the farmers' markets in operation as well as the fluctuating nature of market operational structures (Palma, Morgan, Woods, & McCoy, 2013).

The need for additional farmers' market research, specifically as it relates to fostering the competitive advantages of these markets, becomes even more apparent when one considers the economic contribution farmers' markets make to both the producers who sell their goods at the market and the communities that support the farmers' market venues (Sneed & Fairhurst, 2010). As one of the fastest growing forms of farm marketing in the nation, farmers' markets help account for a sizeable portion of the nearly seven billion dollars in direct sales of food products from farmers to consumers (USDA, 2013).

While farmers' markets serve as valuable and viable means of offering local foods, it is important to realize at their very core, farmers' markets are still in the business of food retailing, with consumers seeking to obtain a sense of value for the dollars they spend and producers seeking to maximize profits for the items they sell. This view was first supported by Lyson, Gillespie, and Hilchey (1995), who in a study of farmers' markets in New York state found economic motivations, especially those of wanting additional income, for farmers to be only slightly less important than the enjoyment farmers obtained from connecting with customers through participation in the farmers' market. In referring to local foods systems, of which she includes farmers'

markets, Hinrichs summarizes her research by stating, “social ties, community, and good will [at farmers’ markets] are often appropriately seasoned by self-interest and a clear view of prices” (2000, p. 301). In their 2008 study of 49 Indiana farmers’ markets and the factors that influence customer and vendor participation in these markets, Hoffmann, Dennis, and Marshall (2008) found two variables significant in predicting vendor participation in the markets studied. These variables included the number of customers and whether a vendor had to pay to sell at the market. Both variables, number of customers and vendor fees, directly deal with revenue and directly influence the amount of money vendors stand to make by participating in the market. It would seem the instrumental role farmers’ markets play in providing an outlet for connecting producer and consumer and consumer with local foods products cannot be negated, nor can the importance of cash flow and profitability be minimized (Gillespie, Hilchey, Hinrichs, & Feenstra, 2007).

### **SIGNIFICANCE OF THE STUDY**

While locally-produced foods have become of increased interest among consumers, methodical research into this topic has only begun (Wise, et al., 2013). This study seeks to expand the current body of literature to include the application of a new theoretical lens to better understand the impact of consumers’ values and attitudes on local foods consumption. The proposed study expands our understanding of local foods and farmers’ markets through the following:

### **Consumers' Values of Food Novelty**

Food novelty as a consumer value and the relationship of this value to local foods purchasing has yet to be examined. However, existing research does offer clues and insight to the importance food novelty may play in local foods purchasing. For example, according to Zepeda and Li (2006), one factor believed to have an impact on local foods consumption - but one that has been all but overlooked in the local foods research - is consumers' interest in food preparation. In their 2006 study, Zepeda and Li found consumers' interest in cooking to have an impact on their local foods purchases. While Zepeda and Li found a positive relationship between interest in cooking and local foods purchasing, the authors only utilized one survey question with three Likert responses to measure interest in cooking.

The current study seeks to build upon and expand this initial work by examining the interplay between food novelty as a consumer value and the consumer's local foods purchasing. Rigor is added to Zepeda and Li's investigation through the application of a multiple item, validated measure of food novelty. This measure of food novelty is taken from the Food-Related Lifestyles Instrument (Scholderer, Brunsø, Bredahl, Grunert, 2004)

### **Consumers' Values of Food Safety**

The United States food supply is increasingly becoming more globalized with food typically traveling 1500 to 2500 miles between farm and plate (Halweil, 2002). This increased globalization of the United States food supply combined with a heightened awareness of food safety concerns, has led to more consumers taking a pronounced interest in where their food comes from. Given the above, it should come as no surprise

that concern for the safety of the foods they consume is one of the primary reasons consumers cite for purchasing local foods (Halweil, 2002).

While the value of food safety for the local foods consumer has been well documented in the literature (Duram, 2010), there is justification for the continued examination of this concept in the context of local foods purchasing. The present study does more than simply examine the importance of food safety for local foods consumers and its impact on their purchasing. Instead, the present study seeks to understand how the value of food safety influences consumers' food quality perceptions which in turn influence their purchase behavior and word-of-mouth intentions. Such an integrated investigation has yet to be undertaken in the local foods literature. The results gleaned from this examination will be useful in increasing agricultural producers' and farmers' market managers' understanding of the value of food safety to their local foods consumers.

### **Consumers' Values of Civic Engagement**

The value consumer's place on civic engagement and the role this value plays in influencing attitudes and purchasing behavior related to local foods has been overlooked in the research literature. While the concept of civic engagement has not been studied by researchers in the local foods setting, a form of civic engagement - civic agriculture - has received substantial attention. As introduced by Lyson (2004), civic agriculture is a concept used to refer to a socially derived and directed agricultural process that is rooted in the concept of civic engagement. According to Lyson, civic agriculture as a term captures the unique interactions and connections that occur between producer and consumer in the selling of local food items. These interactions

and connections in turn create a sense of civic engagement with this engagement leading to a more localized food economy.

Utilizing the principles of Lyson's civic agriculture, this current study seeks to empirically examine the impact of consumers' value of civic engagement on their attitudes and purchase behavior in the local foods context. This will represent the first time empirical examination of this term has taken place in the local foods context.

### **Consumers' Values of Environmental Concern**

As the food system has increased in global scope and food production intensified to meet the needs of a growing population, numerous environmental concerns have surfaced. These concerns include a diversity of environmentally-based issues such as natural resource depletion, air/ water pollution, and pronounced energy demands (Halweil, 2002). In response to these issues, many consumers have begun to think critically about their purchasing decisions and actions particularly the impact these decisions and actions have on mitigating environmental challenges (Laroche, Bergeron, & Barbaro-Forleo, 2001). For some consumers, the decision and action to purchase locally-produced foods represents an attempt to lessen the environmental impact of the current foods system. For these consumers purchasing foods which are locally-produced helps the environment by reducing food miles, decreasing product packaging, lessening emissions associated with increased transportation distances, and fostering environmental stewardship through a reduction in monocropped farm production (Bloom, 2010).

Across the local foods research, one of the factors consistently cited for motivating consumers to source local is their value of the environment (Dimitri &

Greene, 2002; Zepeda & Deal, 2009; Zepeda & Leviten-Reid, 2004). While value for the environment has been found to be of influence to the local foods consumer, no local foods studies have conceptualized environmental concern as an overarching consumer value - a value which influences not only consumers' purchasing decisions and behavior but their attitudes as well. The present study offers this understanding and seeks to test the extent to which consumers' value of environmental concern influences their attitudes regarding food quality and ultimately their purchasing behavior and word-of-mouth intentions. The inclusion of this construct in the research model provides for a broader understanding of local foods and the local foods consumer. This understanding, in turn, becomes instrumental in fostering additional research and developing better insight for agricultural producers and local foods practitioners.

### **Attitudes toward Farmers' Market Environment**

In addition to the above contributions, this study represents a first attempt to apply the work of Baker, Parasuraman, Grewal, & Voss, 2002 and their research on store environmental perceptions to local foods consumption. Of particular note is the application of the store environmental and store social measures to the farmers' market setting. While other research studies have sought to describe the unique socially-engaging environment of the farmers' market setting (Sherry, 1990 and Sherman, McCrohan, and Smith, 1985), no research data has sought to bring understanding to this environment through the use of empirically validated scales; the current study seeks to do so. It is hoped that doing so will lead to a better understanding of the unique shopping environment and producer-to-consumer interactions which characterize farmers' markets.

### **Value-Attitude-Behavior Theory**

In this study the variables above are framed by the lens of Value-Attitude-Behavior Theory. Though this theory has been extensively used in consumer research, researchers (Homer & Kahle, 1998; Tan, 2011) contend that additional inquiry utilizing the Value-Attitude-Behavior theory is warranted. Particularly needed, according to Homer and Kahle (1998), is an expansion of the Value-Attitude-Behavior theory beyond its initial application in the study of natural foods. While the theory of Value-Attitude-Behavior has since been expanded and applied to other food topics including green buying behavior (Aoyagi-Usui, Vinken, & Kuribayashi, 2003; Kim & Choi, 2003) and organic food purchasing (Grunert & Juhl, 1995), this theory has yet to be applied to local foods consumption, a void this study fills.

While research studies have sought to better understand the unique atmosphere of farmers' markets (Hunt, 2007), needs of market managers (Berry, Moyer, & Oberholtzer, 2013), as well as consumers' attitudes toward products offered at the markets (Murphy, 2011), a majority of these studies have failed to utilize theory as a foundation for their research. The present study seeks to address this lack of theoretically-based research in the farmers' market setting by utilizing Value-Attitude-Behavior Theory to examine consumers' local foods purchasing in the farmers' market channel. This use will be the first time that Value-Attitude-Behavior Theory has been applied in the farmers' market setting.

### **Farmers' Market Research**

According to Palma, et al. (2013) a majority of the research surrounding local foods in general and farmers' markets in particular has been localized in focus thus



making it difficult to extrapolate the findings to broader geographies and markets. While national-level research in this area is important, the authors are quick to point out that this national research must hold implications for developing a better understanding of the localized needs of producers and consumers. This study responds to the above opportunities through the use of a national sample of respondents. The use of this national sample helps to move the farmers' market research beyond its limited geographic focus and scope. Implications drawn from the research will be useful for the development of Extension educational programming designed to aid local agricultural producers engaged in direct-marketing as well as the local market-managers who oversee the day-to-day operations of the markets.

## **RESEARCH PURPOSE AND OBJECTIVES**

This study attempts to provide a better understanding of the consumers who source locally-produced foods from farmers' markets. In the context of this retail channel, this study examines the impact of four values (food novelty, value of food safety, civic engagement, and environmental concern) on consumers' attitudes regarding design perceptions, social perceptions, and local foods quality perceptions. The impact of these attitudes on purchase behavior and word-of-mouth intentions is explored.

Specifically, this study is driven by the following research objectives:

- Test Homer and Kahle's (1998) Value-Attitude-Behavior Theory in the context of locally-produced foods in the farmers' market setting.
- Assess the variations by which consumers purchasing local foods through farmers' market channels define "local foods".

- Examine the relationship between consumers' values of food novelty and their attitudes toward design perceptions and food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of food safety and their attitudes toward food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of civic engagement and their attitudes toward social perceptions and food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of environmental concern and their attitudes toward food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of food novelty, consumers' attitudes toward design perceptions, and consumers' purchase intention and word-of-mouth intention in the farmers' market channel.
- Examine the relationship between consumers' values of civic engagement, consumers' attitudes toward social perceptions, and consumers' purchase intention and word-of-mouth intention in the farmers' market channel.
- Examine the relationship between consumers' values of food novelty, food safety, civic engagement, and environmental concern, consumers' attitudes toward food quality perceptions, and consumers' purchase intention and word-of-mouth intention in the farmers' market channel.

## **DISSERTATION ORGANIZATION**

This dissertation is comprised of five sections:

Chapter I - Introduction

Chapter II - Review of Literature

Chapter III - Research Methods

Chapter IV - Data Analysis and Results

Chapter V - Discussion, Implications, and Future Research

In Chapter I, the research objectives guiding this study as well as the significance of the study are outlined. In addition, the concept of locally-produced food is discussed. Included in this discussion is the variety of means by which locally-produced food has been defined within the literature. In Chapter II, a review of the literature supportive of the study's theoretical lens and concepts is undertaken. Following this review of literature, the hypotheses of the study are presented. Chapter III includes a discussion of the research methodology used for this study. As part of this discussion, the research model is introduced, sampling and data collection methods are outlined, and measures of the research model's constructs are presented. Results of the data analysis are included in Chapter IV. An overview of the descriptive statistics necessary to characterize the sample are presented. In addition, results from the Confirmatory Factor Analysis (CFA) as well as the Structural Equation Model (SEM) are presented. In Chapter V, results of the study are revisited and discussed. As part of this discussion, attention is given to the limitations of the study and implications of the findings for practice and research.

## CHAPTER II REVIEW OF LITERATURE

This chapter begins with an introduction of the theoretical lens to be utilized in the current study. Following an introduction of the theoretical lens, the component parts of the theory are discussed. After this discussion, the research stream surrounding the use of this theoretical lens is explored. Following these sections, a literature review of the key components of the research model is presented. Lastly, the research hypotheses are developed from this review of literature.

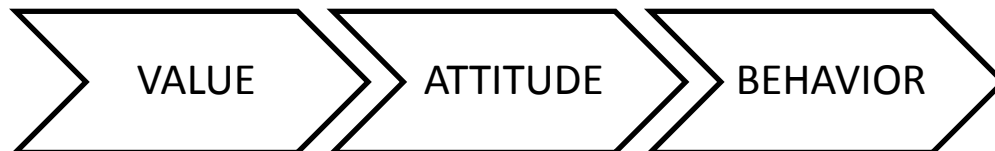
### THEORETICAL FRAMEWORKS

In the following section, the theoretical lens utilized for this study - Value-Attitude-Behavior Theory – is introduced. An explanation of the major tenets comprising Value-Attitude-Behavior Theory is offered. Following this explanation, the research stream leading to the development of Value-Attitude-Behavior Theory is explored. This section includes a discussion of the application of this theory in food-related research studies including studies germane to local foods consumption. Justification for the utilization of this theoretical lens in this current study is also included. This section concludes with a discussion of a second theory - Theory of Planned Behavior. The importance of this theory as a justification for the relationships between the attitudinal constructs and outcome variables is discussed.

#### **Value-Attitude-Behavior Theory - Defined**

Values, attitudes, and behaviors remain among the most important and most studied constructs in social psychology (Maio, Olson, Allen, & Benard, 2000). First tested causally by Homer and Kahle (1988) in their *Journal of Personality and Social Psychology* Article, Value-Attitude-Behavior Theory represents an attempt to integrate

these three constructs into a single model. At its most basic level, Value-Attitude-Behavior Theory can be understood as a cognitive hierarchy representing the relationship between values, attitudes, and behaviors. Value-Attitude-Behavior theory proposes that consumers' values indirectly influence behavior through the mediating role of attitudes. Values, according to this theory, help to shape and form attitudes with attitudes in turn influencing behavior. According to Milfont, Duckitt, and Wagner (2010), this model is designed in such a way that it theoretically flows from more abstract cognitions to specific behaviors. Values, the most abstract cognitions, give way to mid-range cognitions (attitudes) which in turn influence and lead to specific behaviors. Support for the hierarchical representation of values, attitudes, and behaviors is further offered by Batra, Homer, and Kahle (2001), who assert that values, being general and enduring forms of cognition, should logically precede the constructs of attitudes and behaviors because values emerge early often formed based upon early life experiences. A graphical representation of this theory follows:



**Figure 1: Value-Attitude-Behavior Theory**

Listed and defined below are the three foundational constructs which comprise Value-Attitude-Behavior Theory:

## *Values*

A variety of definitions have been operationalized to define values. As defined by Gutman (1982), values can be conceptualized as specific modes of conduct or end stages of existence that are believed to be personally or socially preferable. Values play a fundamental role in guiding consumer choice and consumption behavior and serve as a “powerful force(s) in governing the behavior of individuals in all aspects of their lives” (Gutman, 1982, p. 60). This definition is supportive of one offered by Kahle (1983), who asserts values to be a type of social cognitions that aid individuals in adapting to their environments. Values, as defined by Kahle, serve as the most abstract form of social cognitions from which attitudes and subsequently behaviors are formed.

The most widely utilized method of measuring values was established by Rokeach (1973) who developed the Rokeach Value Survey (RVS) as means of classifying and measuring values. According to the RVS, values can be conceptualized as two types - Terminal Values and Instrumental Values. These two types of values are in turn comprised of 18 individual value items. While the RVS represents a first attempt at systemically measuring values, this instrument has been criticized by researchers due to its length, difficulty of implementation, and propensity toward information loss. In response to these criticisms, additional value instruments have been developed and implemented. Among these instruments is the List of Values (LOV) measure (Kahle, 1996). This measure shortens Rokeach’s list of values from 36 to 9 values many of which align closely with the individual value items contained in the RVS.

From these 9 values, researchers have been able to identify - through the use of factor analysis - three underlying dimensions (external, internal, and fun/excitement).

Two of these dimensions - external values and internal values - will be utilized in the current study. The use of external and internal values is supported by Grunert & Juhl (1995) who conceptualize values to be both self and social centered serving as the “crossroads between the individual and society” (p.40).

### *Attitudes*

Survey research often makes the mistake of offering little distinction between values and attitudes (Davidov, Schmidt, & Schwartz, 2008). However, establishing such a distinction is imperative as values and attitudes represent two related yet conceptually distinct concepts. Unlike values which are broad abstract conceptualizations, attitudes represent “a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” (Fishbein & Ajzen, 1975, p. 6). The distinction between values and attitudes is echoed by Allen, Ng, and Wilson (2002), who posit that attitudes are associated with particular objects (persons, things, or issues) to which the attitudes make reference while values lack such objects of reference serving instead as abstract guides leading to the development of object evaluation and attitude formation.

A variety of intellections have been utilized by researchers in the study of attitudes. According to Lutz (1980) two of the primary understandings include the tripartite view of attitudes and the unidimensionalist view of attitudes. The tripartite view of attitudes conceptualizes attitudes as being comprised of three related components - cognition, affect, and conation. The unidimensionalist view of attitudes, however, holds that attitudes are developed through a casual flow of beliefs, affect, intentions, and

behavior. This unidimensionalist view of attitudes has become the foundation for most attitude research (Lutz, 1980).

Working from a unidimensionalist perspective, Fishbein (1963) formulated a theory of attitude that has significantly impacted attitudinal research. According to Fishbein, attitudes are the product of two components - importance and beliefs. For a given attribute, *importance* represents an evaluation of the attribute in the mind of the consumer while *beliefs* represent the extent to which an object embodies the given attribute.

This model of attitudes as put forth by Fishbein is still widely accepted and utilized today. Yet, researchers have taken liberties with this model often measuring attitudes using only one of Fishbein's original dimensions. For example, in their 2010 study of green hotel selection, Han, Hsu, and Sheu, discuss Fishbein's two attitudinal dimensions as part of the conceptual framework for the study. Yet, the authors only utilize a single dimension in measuring attitudes. Additionally, a unidimensional measurement of attitudes has been utilized in a host of studies examining the role of attitudes and local foods (Rainbolt, Onozaka, & McFadden, 2012), attitudes and organic, local, US grown, and GM - free foods (Bellows, Alcaraz V., & Hallman, 2010), attitudes and organic foods (Chen, 2007), and attitudes and on-line grocery shopping (Hansen, 2008).

### *Behavior*

In terms of the Value-Attitude-Behavior framework, behaviors can be conceptualized as the outcome variable or expected result based upon the influence of the value-attitude hierarchy. A variety of outcome behaviors have been studied utilizing



the Value-Attitude-Behavior framework. Such behaviors include food buying behavior (Grunert and Juhl, 1995), green buying behavior (Kim and Choi, 2005), and willingness to purchase groceries on-line (Hanson, 2008). It is worth noting that many studies, in the absence of measures capturing actual human behavior, have relied on behavior intention to serve as a proxy indicator of the behavior under examination. This use of behavior intention has been found to be an acceptable indicator of the actual behavior in question (Tan & Yeap, 2011).

### **Value-Attitude-Behavior Theory - Research Stream**

Credit is typically given to Homer and Kahle (1988) for their work in causally testing (via structural equation analysis) the relationships comprising the value-attitude-behavior framework. However, in order to fully understand the foundation upon which this framework rests, it is necessary to go back to the seminal work of Milton Rokeach (1973) who was among the first to emphasize the importance of values in understanding human behavior. According to Rokeach, values are the building blocks from which the rest of human behaviors as well as the social sciences expand. Building upon this assertion, Pitts, Canty, and Tsaliks (1985), were able to prove via their research with value consistent versus value inconsistent advertising that a link does exist between personal values and consumer choice selection. While not all human consumption behavior can be related to values, it does appear that, as stated by Kahle and Xie (2008), understanding a consumer's values can help researchers understand a consumer's propensity for selecting a particular brand or product "above and beyond what can be learned from other demographic and lifestyle information" (p. 575).

While the relationship between values and behavior was proving evident, questions still remained among researchers as to the exact means by which values ultimately influenced human behavior. Certain researchers such as Williams (1979) were quick to contend that values have a causal influence on subsequent human behaviors. Whether the values were explicitly or implicitly defined, Williams saw behavior as being determined in large parts by prior beliefs and values of the individual. Interestingly, Williams understanding of values and their influence on human behavior did not include any reference to the impact of attitudes and the role attitudes may play in the value - behavior hierarchy.

Introduction of attitudes in the value-attitude-behavior hierarchy was offered by Carman who in 1977 developed a model of value-attitude-behavior which proposed a causal relationship between attitudes and human behavior. According to Carman's model, values did influence human behavior. However, unlike the Williams model, this influence was not direct but instead was manifested through the mediating role of attitudes. Support for the Carman model has been offered by correlational as well as causal research including the seminal research of Homer and Kahle (Homer & Kahle, 2001).

Even after the introduction of the Carman model, a number of researchers questioned the extent to which attitudes influence human behavior. As a result of the debate surrounding the influence of attitudes on behavior, three basic "camps" emerged. One position regarding attitude and behavior is held by the behaviorist camp. According to this camp, attitudes have little to no influence on human behavior or the way individuals perform actions. This group argues in favor of abandoning the attitude-

behavior relationship. Instead of viewing attitudes as a separate concept, the behaviorist camp argues that attitudes should best be understood as simply another type or class of human behavior. Proponents of this position see attitudes as behavior themselves or at least surrogates or precursors of behavior (Kim & Hunter, 1993).

While the behaviorist camp may discount the concept of attitudes, a second group of scholars recognize attitudes as having some influence on human behavior albeit a weak and inconsistent one. According to this group, the influence of other variables such as involvement, individual characteristics, self-awareness as well as various qualities of the attitudes themselves must be taken into account if the influence of attitudes on behavior is to be fully understood. For many researchers in this camp, these other variables and conditions are as valid means and determinants of human behavior as the attitudes with which they correspond. A final group of researchers in the attitude-behavior debate argues that construct-valid attitudes are closely related to their corresponding behavior tendencies. From this camp comes the most commonly evoked directional influence, that of the influence of values on attitudes and attitudes on behavior. It is this influence that has promoted several causal models (Theory of Reasoned Action, Schwartz's Norm Activation Model, Value-Belief-Norm Theory) including the model of value-attitude-behavior that is being used as the theoretical lens in this present study (Tan & Yeap, 2011).

### **Value-Attitude-Behavior Theory - Application**

The Value-Attitude-Behavior model was introduced and tested by Homer and Kahle in their 1998 study regarding the influence of consumer values and attitudes on natural food shopping. Through a series of multivariate and structural equation

analyses of the Value-Attitude-Behavior model, the researchers found that people who hold internally-oriented value structures regarding natural foods tend to like natural foods more. These values influence respondents' attitudes toward nutrition with positive attitudes toward nutrition translating into an increase in the dollar amount spent on natural foods and an increase in shopping frequency for natural foods. Since this initial work, which should be noted was the first causal test of the Value-Attitude-Behavior framework, Homer and Kahle's model has been applied in numerous contexts. Such contexts include the application of Value-Attitude-Behavior theory in the study of recycling behavior (McCarty & Shrum, 1994), mall shopping behavior (Shim & Eastlick, 1998), e-shopping behavior (Jayawardhena, 2004), pro-environmental behavior (Kim, 2002), and even retail career choice (Shim, Warrington, & Goldsberry, 1999). The following table highlights a list of key studies which have utilized the Value-Attitude-Behavior theoretical lens. Included in this table is a summary of the major findings reported for each study.

**Table 1: Value-Attitude-Behavior Theory:  
Pro-environmental Behaviors and Food Shopping Behaviors**

Study	Domains Researched	Findings
McCarty & Shrum, 1994	Recycling behavior	Values did not have a direct influence on recycling behavior. However, values did have a direct impact on attitudes about the inconveniences of recycling and the importance of recycling. Attitudes regarding the inconvenience of recycling negatively influenced recycling behavior.
Grob, 1995	Environmental behavior	Personal values and emotions had the strongest effect on environmental behavior. Attitude was able to explain 39% of the variance in environmental behavior.
Grunert & Juhl, 1995	Organic food purchasing	Using a sample of Danish school teachers, the researchers were able to determine that the more environmentally concerned an individual was the more likely he/she was to purchase organic foods.

**Table 1. Continued.**

Study	Domains Researched	Findings
Goldsmith, Frieden, & Henderson, 1997	Food shopping behavior	Using a sample of 323 adult women shoppers, the authors found that food attitudes influenced food purchases. Findings also indicate that social values influence purchasing behavior for low (snack and convenience foods) and high involvement products.
Kim & Choi, 2003	Pro-environmental behavior	Values orientation was found to exert an indirect influence through perceived consumer effectiveness thus subsequently influencing environmental attitudes and behaviors.
Kim & Choi, 2005	Green buying behavior	Collectivistic value orientations were found to influence the belief about consumer effectiveness. This in turn influenced green buying behavior. Of particular interest, the variable of environmental concern was found to have a direct relationship on green buying behavior.

**Table 1. Continued.**

Study	Domains Researched	Findings
Schultz, Gouveia, Cameron, Tankha, Schmuck, Franěk, 2005	Conservation behavior	Studying the values and environmental attitudes relationship in six countries, the researchers demonstrate strong support for the relationship between values and attitudes across cultures.
Hansen, 2008	On-line grocery shopping	Using a survey of 1058 Swedish consumers, the researchers offer support for the link between values, attitudes, and on-line grocery purchasing. Additionally, the researchers find that the value-attitude-purchasing relationship may be moderated by consumers previous on-line purchasing experiences.

Of most importance to this current study is the application of Value-Attitude-Behavior Theory by various researchers to better understand consumer decision making in the context of food purchasing. For example, Grtunert and Juhl (1995) used Value-Attitude-Behavior theory to investigate the influence of Danish school teachers' values and attitudes on the purchasing of organic foods. In their study, the researchers utilized the Schwartz Value Inventory (SVI) to assess the potential of values to explain consumers' pro-environmental attitudes. An evaluation of the data revealed that the 56

values from the SVI could be clustered into ten domains. From these ten domains, it was found that 3 motivational values (Universalism, Benevolence, and Spirituality) were positively associated with pro-environmental attitudes. Additionally, the researchers found that those respondents who held strong pro-environmental attitudes were more likely to report an increased frequency of purchasing organic foods.

Using the framework of Value-Attitude-Behavior Theory as well as the theoretical lens of the Theory of Planned Behavior, Hansen (2008), sought to examine the relationships between consumers' values, attitudes, social norms, and perceived behavioral control and consumers' willingness to purchase groceries through the on-line shopping channel. Data was collected from 1058 Swedish shoppers using a self-administered questionnaire. From the data set, shoppers were grouped into three categories based on the previous usage of the internet for shopping (those who had never purchased an item on the internet, those who had purchased an item on the internet but not groceries, and those who had purchased items including groceries on the internet). The results of the study offered support for the notion that personal values as measured by a sub-set of the Swartz Value Inventory affected consumers' attitudes toward on-line grocery shopping with these attitudes in turn influencing behavioral intention. In addition to this finding, this study offers support for the Value-Attitude-Behavior framework. First, the study found that none of the value dimensions investigated had a direct influence on willingness to buy groceries on-line (the outcome behavior under investigation). Instead, the study found that attitudes were the most important predictor of consumers' behavioral intention. These results are in keeping with



the Value-Attitude-Behavior framework and its fundamental assertion that attitude mediate the influence of values on behavior.

Finally, in their study of 323 adult females, Goldsmith, Frieden, and Henderson (1997), sought to examine the impact of respondents' values and attitudes on food-purchasing behavior - specifically convenience foods, "junk" foods, and snack foods. Using the List of Values (LOV) instrument as well as attitudinal measures related to food, food additives, and snack foods, the researchers found a consistent relationship between food attitudes and shopping behavior. Specifically, the researcher found that pro-snacking attitudes correlated highly with the purchase of "junk" foods, correlated negatively with the purchase of nutritious snacks, and correlated positively with the use of convenience foods. Additionally, respondents' positive attitudes toward convenience shopping positively correlated with the use of convenience foods, and respondents positive attitudes toward cooking negatively correlated with the purchase of "junk" and convenience foods. Finally and perhaps most germane to this current study, overall correlations were generally greater between attitudes and behavior than between values and behavior. Thus, this finding is supportive of the Value-Attitude-Behavior framework.

### **Value-Attitude-Behavior Theory - Justification for Use in Current Study**

As outlined above, the use of Value-Attitude-Behavior theory for studying consumers' food and grocery shopping behavior has a long history in the research literature. In fact, the first causal test of the Value-Attitude-Behavior theory occurred in the context of natural foods purchasing (Homer & Kahle, 1988). Thus, the utilization of this theory in this current study appears to be a natural outgrowth of its previous usage.

Furthermore, the use of Value-Attitude-Behavior theory in this current study addresses one of the implications for future research from the seminal Value-Attitude-Behavior theory article of Homer and Kahle (1988). According to Homer and Kahle, the expansion of Value-Attitude-Behavior Theory beyond the context of natural foods to additional products and industrial situations is necessary. The application of Value-Attitude-Behavior theory in the current study to local foods in the farmers' market channel addresses this necessity.

While Value-Attitude-Behavior theory has enjoyed a long and prolific history in the consumer behavior research literature, there still remains further need for investigation. According to Batra, Homer, and Kahle (2001), while significant progress has been made in terms of utilizing and testing the Value-Attitude-Behavior theory, more research is needed. Such research according to the authors must seek to examine the relationship between individuals' values and more specific attitudes. This need to utilize more relevant and product specific attitudes has been echoed by other researchers who emphasize the importance of employing attitudinal measures specific to the context under investigation (Tan, 2011). It is believed that the use of more specified and focused attitudinal measures should lead to stronger correlations with the outcome behaviors in question. This utilization of more specified measures of attitude is seen as the "next step" in the Value-Attitude-Behavior research. This study, with its focus on attitudes specifically related to local foods purchasing, responds to these needs outlined by researchers thus moving Value-Attitude-Behavior theory toward this "next step" in the research.

While Value-Attitude-Behavior theory has been employed in the investigation of food and grocery purchasing, all of this investigation has occurred in European research settings. This limitation of Value-Attitude-Behavior Theory to a European context provides a sizeable gap in the research literature and raises opportunities for exploring the use of Value-Attitude-Behavior Theory in countries outside of a European setting such as the United States. Finally, other research studies which have Value-Attitude-Behavior Theory as their theoretical framework have successfully employed other research methodologies and modes of statistical analysis including on-line solicitation of responses and Structural Equation Modeling. (Homer and Kahle, 1988; Park and Yang, 2006; and Davidov, Schmidt, and Schwartz, 2008). Using such methodologies in concert with Value-Attitude-Behavior Theory provides justification for their place in the current study.

### **Theory of Planned Behavior**

In addition to Value-Attitude-Behavior Theory, a second theory - The Theory of Planned Behavior offers support for the relationships proposed in the research model. Specifically, the Theory of Planned Behavior helps to justify the relationships proposed between the attitudinal variables (design perceptions, social perceptions, food quality perceptions) and the outcome variables (purchase behavior and word-of-mouth intentions). The following paragraphs offer a brief description of The Theory of Planned Behavior and its application in food-related research studies including the present study.

From adolescent food choices (Denninson & Shepherd, 2008) to beliefs regarding organic products (Sparks & Shepherd, 1992), dairy consumption by older adults (Kim, Reicks, Sjoberg, 2003), and local foods purchasing (Campbell, 2011),

Theory of Planned Behavior (Ajzen, 1985) has been utilized in a number of studies. Certainly, a central strength of the Theory of Planned Behavior lies in its ability to explain a wide cross-section of behavioral intentions.

As an outgrowth of the Theory of Reasoned Action, the Theory of Planned Behavior outlines three independent determinants of behavioral intention (Ajzen, 1985). These determinants include an individual's attitude toward the behavior under investigation, subjective norms (the social pressures influencing an individual's behavior intention), and perceived behavior control (the ease or difficulty one perceives in performing the behavior). It is this third determinant - perceived behavioral control - that distinguishes the Theory of Planned Behavior from its predecessor - the Theory of Reasoned Action. Generally speaking behavioral intention is positively related to each of the three factors such that favorable attitudes combined with favorable subjective norms and increased perceived behavioral control results in increased behavioral intention. Behavioral intention according to Bagozzi, Baumgartner, and Yi (1989) is seen as an immediate antecedent to performing a behavior.

According to Moons and De Pelsmacker (2012), the Theory of Planned Behavior has obtained the status of a general model of consumer behavior that is relevant for predicting behaviors in a variety of contexts. In 2002, Cook, Kerr, & Moore used a modified version of Theory of Planned Behavior (adding the construct of self-identity) to gauge consumers' intention to purchase genetically modified (GM) products. Cook, et al. (2002) found intention to purchase GM products to be positively influenced by attitude, subjective norm, self-identity, and perceived behavioral control. In terms of local and sustainable foods, Vermeir and Verbeke (2007) used the Theory of Planned

Behavior to investigate determinants of sustainable dairy food consumption among young adults in Belgium. Through attitudes, subjective norms, perceived consumer effectiveness, and perceived availability, Vermeir and Verbeke were able to explain 50% of the variance in respondents' intention to consume sustainable dairy foods. Building upon this work, Campbell (2011) employed the Theory of Planned Behavior in investigating local foods purchasing in the context of grocery store channels finding significant relationships between attitudes, subjective norms, and intention to purchase.

As evident in the above studies, The Theory of Planned Behavior establishes a clear conceptual link between the constructs of attitude and behavior providing a needed context within which one can fully understand the relationships between these two constructs (Campbell, 2011). The conceptual links between attitude and behavior inherent in the Theory of Planned Behavior offer affirming and additional support for the relationships between the attitudes (design perceptions, social perceptions, food quality perceptions) and the outcome behaviors (purchase behavior and word-of-mouth intentions) proposed in the current study.

## **PROPOSED RESEARCH MODEL**

At its most fundamental level, Value-Attitude-Behavior Theory serves as a tool for understanding how consumers' values are translated into behavior through the mediating role of attitudes (Homer and Kahle, 1988). Utilizing this fundamental assumption, this research model (Appendix A) seeks to examine the influence of four values on consumers' attitudes regarding environment and food quality perceptions. Furthermore, the influence of these attitudes on purchase behavior and word-of-mouth

intention is examined. The above examination will occur in the context of local foods purchasing in the farmers' market channel.

The model proposed is in keeping with the use of a similar model for understanding consumer behavior as introduced in the agricultural economics literature by Lancaster (1966). According to the Lancaster model, in order to more fully understand consumption behavior, multiple variables must be examined. This focus on the need to examine the interplay of multiple variables and the role those variables play in influencing consumption behavior represents a departure from more traditional, neo-classical models of understanding consumption. According to the neo-classical models of consumption, the dependent variable of interest (almost always amount spent) was seen as a function of a limited number of explanatory variables - variables which often included only price, income, and demographic variables characterizing the consumer (Zepeda & Li, 2006).

This limited use of the above explanatory variables in neo-classical models is troubling especially given the fact that other variables including values and attitudinal variables are much better predictors of general consumer behavior (Kahle & Xie, 2008) as well as food buying behavior (Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G., 2009 and Zepeda & Li, 2006). Since the introduction of the Lancaster model and its broadened focus on additional variables worthy of investigation, researchers including Fischer (2005) and Variyam, Blaylock and Smallwood (2002) have used the model to examine a wider range of variables (including consumers' health, socioeconomic status, environment, convenience, and

nutrition) all of which have been found to play a role in influencing food consumption behavior.

Definitions of study constructs can be found in Table 2. Utilizing these constructs, this study seeks to establish a “snapshot” of consumers who predominately source local food products from a farmers’ market. This examination will provide a better understanding of the local foods movement including the values and attitudes significant for these consumer groups. Implications from this study will be used to support local foods producers, farmers’ market vendors, and farmers’ market managers. Support for the inclusion of the research concepts contained in this model is offered from the extant research literature. The following section introduces the research model to be tested.

**Table 2: Definition of Constructs used in Research Study**

Construct	Definition	Source
Local foods	According to Congress, local foods are defined as those agricultural products traveling a total distance of less than 400 miles from origin to market or agricultural products sold within the state of production. For this study, local foods will be defined as those foods produced within 100 miles of the consumers’ residence.	Food Conservation and Energy Act of 2008

**Table 2. Continued.**

Construct	Definition	Source
Farmers' market	Farmers' markets are a form of direct-to-consumer retailing where agricultural producers bring products to a centralized location at which consumers can browse and purchase the products directly from the producer.	Bloom, 2010
Food quality	The term food quality includes all attributes (excluding safety attributes) associated with a product that can influence the value of that product in the mind of the consumer including spoilage, contamination with filth, discoloration, off-odors and positive attributes such as the origin, color, flavor, texture and processing method of the food.	FAO/WHO, 2003



**Table 2. Continued.**

Construct	Definition	Source
Food quality perceptions	<p>Consumers' evaluation of a product's overall quality based on the use of quality cues. Cues utilized include but are not limited to filth, discoloration, off-odors, origin, color, and processing methods. Perceptions of food quality can also include flavor and texture evaluations inferred from the above attributes and/or consumers' previous product experience and extant product knowledge.</p>	Author
Food safety	<p>Food safety is a non-negotiable term referring to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer.</p>	FAO/WHO, 2003

**Table 2. Continued.**

Construct	Definition	Source
Perceptions of food safety	<p>Consumers' evaluation of the overall extent to which a food product will or will not cause harm to the consumer when prepared and/ or eaten. Perceptions of food safety can be based upon product knowledge as well as previous product experience. Perceptions of food safety may or may not be congruent with definitions and acceptable food safety standards as outlined by regulatory agencies including the USDA and FDA.</p>	Author
Civic agriculture	<p>Civic agriculture is a term used to describe a socially derived and directed agricultural process that is rooted in community networks and social ties. The interactions that occur between producer and consumer in the selling of local foods items create a sense of engagement leading to a more localized food economy.</p>	Lyson, 2004

## Food Novelty

Food novelty is conceptualized by Brunsø, Scholderer, & Grunert (2004) to represent the importance a consumer places on food preparation, food experimentation, and the trying of new recipes and culinary techniques. Food novelty is one of the six factors used to measure the life domain of “cooking methods”. This domain along with four other domains (ways of shopping, quality aspects, consumption situations, and purchasing motives) comprises Brunsø and Grunert’s food-related lifestyles instrument.

Support for the inclusion of constructs such as food novelty has been alluded to by researchers Zepeda and Li (2006). According to the researchers, one of the individual values which does have an impact on local foods consumption but which has been all but overlooked in the local foods research is the influence of consumers’ value of food preparation and cooking. In their survey of 900 households who had purchased foods through direct-to-consumer selling channels (farmers’ markets, CSA’s, and on-farm purchasing), the authors found individuals’ regard for food preparation to be significantly associated with purchasing locally grown foods. For those who indicated that they valued cooking “somewhat” their probability of purchasing local foods increased 17% while for those respondents who indicated they value cooking “very much” their probability of purchasing local foods increased 32% (Zepeda & Li, 2006). The significance of this attribute is even more profound given the fact that the authors found that attributes traditionally mentioned as important drivers of local foods consumption (views toward nutrition/health, energy conservation, and farmers receiving an adequate price) had no significance on local foods purchasing.

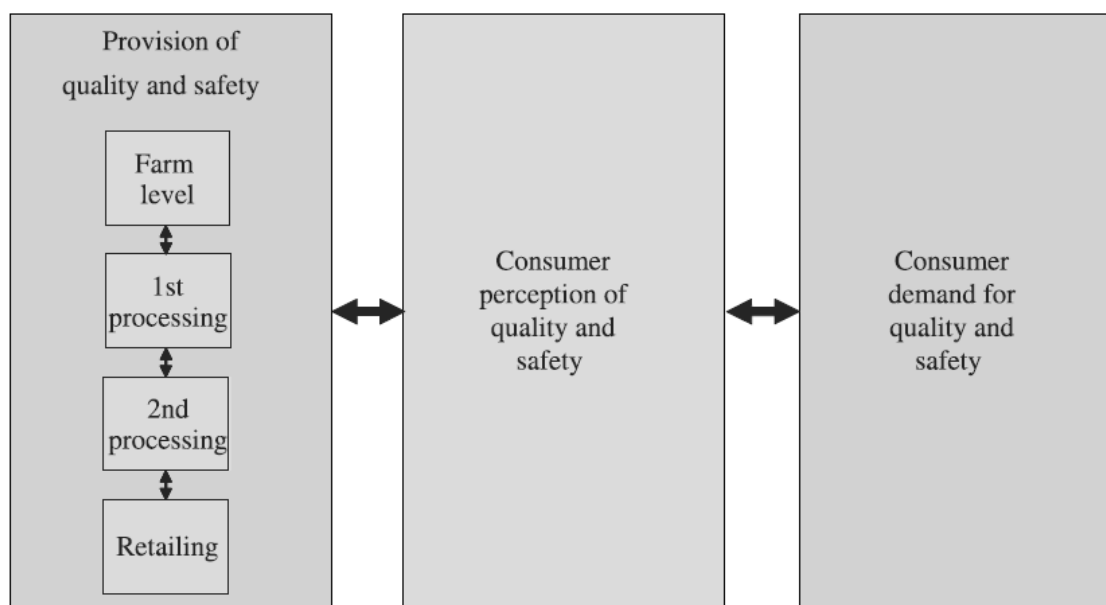
Given the research above, why should a measure such as food novelty be included in the present research model? First, in measuring “interest in food preparation” Zepeda & Li (2006) only utilize one survey question with three Likert responses. The use of only one measure to examine interest in food preparation is troubling especially given the fact that other measures consisting of multiple scale items and a greater number of Likert responses are available. Additionally, previous research has focused solely on measuring consumers’ interest in food preparation. Utilizing the measure of food novelty allows for this focus to be expanded beyond measuring value of food preparation to include a broader examination of consumers’ value of experimentation and the trying of new recipes and culinary techniques as well as food preparation.

### **Food Safety**

Throughout the past decade food safety has been a pervasive topic within the media, industry, and environment (Grunert, 2005). The pervasive nature of this topic along with increased consumer attention and interest in food safety issues has prompted numerous research studies examining the means by which safe foods are provided to consumers; consumers’ perceptions of food safety; as well as market demands for safe foods. The topic of food safety takes on even greater importance when one considers the role it plays in the increased consumer demand for and purchasing of local foods (Halweil, 2002). Thus, based upon the importance of food safety within the context of local foods as well as its increased prevalence in the media and industry, this concept has been included as part of the research model.

In this study, food safety is being conceptualized as a distinct concept - separate but related to the concept of food quality. This conceptualization is echoed by researchers who argue that substantial differences exist between the two concepts (Röhr, Lüddecke, Drusch, Müller, Alvensleben, 2005) with consumer's ascribing distinct and different attributes to each. The distinct nature of this concept is further supported by the Food and Agriculture Organization of the United Nations (FAO) & World Health Organization (WHO) (2003) who in their *Guidelines for Strengthening National Food Control Systems* offer distinct definitions for the terms food quality and food safety. Food Safety, according the FAO/WHO, is a non-negotiable term referring to "all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer" p.3.

There are a variety of angles by which one can approach the study of food safety. The diverse ways of approaching, understanding, and studying the topic of food safety has been captured by Grunert (2005) in his model on the research streams surrounding food quality and food safety. (See Figure 2.)



**Figure 2: Grunert Model for Understanding Food Quality and Food Safety**

According to Grunert, the study of food safety can be approached from three different but related perspectives. These perspectives include an examination of food safety from the supply side, from the demand side, as well as a study of food safety from the perspectives of the consumer and his or her perceptions related to food safety. These three perspectives capture the three main streams of research on food quality and food safety (Grunert, 2005).

Until recently, the supply and demand side perspectives were the dominant means by which research in the area of food safety could be understood. However, according to Grunert (2005), an additional research stream in the area of food safety has begun to emerge. The research stream represents a blending of both the supply-side and demand-side modes of understanding and includes the means by which consumers perceive the safety of the food available to them. Inherent in this new mode

of examining food safety is a focus on the value consumers' place on the safety of their food supply.

Local foods consumers clearly place a high value on the safety of the foods they are consuming (Halweil, 2002). In fact, consumers' concern regarding food safety has been cited as one of the primary motivators contributing to the growing demand for local food products (Bloom, 2010; McSwain, 2012). In a national survey of 1,549 primary grocery shoppers, Bond, et al. (2008), found food safety to be one of the primary motivators driving consumers to seek out locally-produced fruit and vegetable products. It is worth noting that this concern for food safety remained of key importance to the consumer regardless of the location from which the consumer primarily purchased their local food items. Food safety remained just as much a concern for those consumers purchasing local produce through a direct marketing channel (such as a farmers' market) as for those purchasing local produce through a grocery store. In addition, for the local foods consumers in Bond's, et al. study, food safety was of greater value than even the support they perceived they were offering to local agriculture when they made local foods purchases (Bond, et. al., 2008).

### **Civic Engagement**

Across the local foods literature, much has been written about the role buying and selling local foods plays in creating social networks between consumers and agricultural producers (Delind & Bingen, 2008; Brehem & Eisenhauer, 2008). In attempts to more fully understand these social networks, local foods researchers have turned their attention to other disciplines, namely the social and political sciences. From these disciplines, local foods researchers have borrowed and modified a variety of

concepts and measures. One such concept which has enjoyed frequent use in the local foods literature is that of civic engagement (Bagdonis, Hinrichs, & Schafft, 2009; Delind, 2001; Lyson, 2004).

As defined by Pattie, Seyd, and Whiteley (2003), civic engagement represents a multi-dimensional concept which explains the trust and commitment that individuals form when they pool together for purposeful, directed work. Using data from the British Citizen's Audit study, Pattie et al., were able to identify three components of civic engagement – these components included individual-based engagement, collective engagement, and engagement with authority. Based on their findings, the authors identified a host of personal variables which influenced the extent to which an individual is civically engaged. These variables included positive evaluation of the benefits of civic engagement, involvement in communal organizations, as well as access to resources.

In the United States, however, studies regarding civic engagement have tended to operationalize the concept as a one-dimensional term often measured by indicators such as civic participation, state spending, and trust. Using measures of wages, race, and birthplace, Coasta and Kahn (2003) compared the levels of civic engagement (as measured by group affiliation and volunteerism) between heterogeneous communities and homogeneous communities in the US. The researchers found that those communities which were more homogeneous in nature were those communities that demonstrated higher levels of civic engagement.

The concept of engagement was moved to the agricultural arena in works by Bagdonis, et al., 2009. In their study of farm-to-school programs, the researchers found the extent to which school administrators were engaged in the community



helped to explain the extent to which these administrators were open to perusing the idea of farm-to-school programming. Additionally, in their research on the importance of “third place”, Tolbert, Lyson, and Irwin (1998), suggest that communal venues such as farmers’ markets serve as excellent opportunities for fostering civic engagement. These venues which afford members of the community opportunities to connect and engage with one another are seen by some researchers to be vital elements necessary in cultivating civic engagement (DeLind, 2001).

A majority of researchers within the local foods literature, have forgone using the term civic engagement opting instead to utilize a new term, the term of civic agriculture. While the nomenclature is different, both terms - civic engagement and civic agriculture - have parallel meanings (Bagdonis, et al., 2009). Some researchers have best described the concept of civic agriculture as a marriage between “American social scholarship on civic engagement and the scholarship on the sociology of agriculture and food systems” (Bagdonis, et al., 2009, p. 108)

As introduced by Lyson (2004), civic agriculture is a concept used to refer to a socially-derived and directed agricultural process that is both rooted in community networks and social ties. According to Lyson, civic agriculture as a term captures the unique interactions and connections that occur between producer and consumer in the selling of local food items. These interactions and connections create a sense of engagement with this engagement leading to a more localized food economy. Farmers’ markets, Community Supported Agriculture (CSA) programs, and on-farm selling are all seen as the key means by which civic agriculture and the engagement of producer and consumer are promoted.

While the term civic agriculture may hold importance in understanding the connections that are formed between producer and consumer in the local foods context, there are many challenges which currently hinder its use by researchers. Chief among these challenges is the fact that this term has yet to be operationalized in a manner that can be investigated by empirical research. Unfortunately, the works of Lyson offer little help in the development of testable measures of civic agriculture. Thus, to find viable measures, it becomes necessary for one to move outside the area of agriculture to the areas of political and social sciences.

### **Environmental Concern**

According to Crosby, Gill, and Taylor (1981), environmental concern can best be defined as a strong, positive predisposition to preserving the environment. This definition has been supported by other researchers who hold that environmental concern represents an over-arching concept that encompasses many different forms of pro-environmental behaviors and labels (Minton & Rose, 1997). These pro-environmental behaviors include a variety of actions ranging from purchasing behaviors (avoiding products from specific companies, buying products made from recycled materials, reading labels) to post-purchase behaviors (returning bottles and cans, recycling,) to financial support of environmental groups (monetary gifts, volunteering, in-kind services).

Environmental concern, as a topic of academic study, entered the realm of research beginning in the 1960's. This topic emerged out of the idea that the field of marketing had failed to focus on the impact individual consumption behavior had on the broader society (Fisk, 1973). With its introduction, a flurry of consumer research

regarding environmental concern followed in the 1970's and 1980's. Unfortunately, a lack of "environmentally friendly" products during the 1970's and 1980's limited researchers during this time to a focus on non-consumption behaviors such as recycling, volunteering, and monetary donations (Follows & Jobber, 2000). Today, environmental concern remains an important topic in both the market place and consumer research. As consumers are encouraged "to do their part" to protect the environment, industry continues to introduce new environmentally sustainable products and researchers continue to refine the best means of operationalizing and measuring pro-environmental behaviors (Seyfang, 2006).

Since the 1960's, consumers' interest in environmental issues has continued to grow with this growth resulting in the development of what Laroche, et al. (2001) term an "environmentally conscious marketplace". As part of this "marketplace" consumers are giving careful attention to the larger impact their purchasing decisions have on their communities and the biosphere. Consumers' purchasing of food products (a large representation of the environmentally conscious marketplace) are also being shaped by environmental concerns specific to the food system.

The complexity of today's food system encompasses a broad array of environmental and social interactions as food moves along the food chain from production ("the field") to consumption ("the table") (Ericksen, 2008). As the food system has increased in global scope and food production intensified through larger farm sizes and higher degrees of control over agricultural inputs, numerous environmental concerns have surfaced. Chief among these concerns include demands for water and natural resources, pollution from agricultural inputs, soil erosion, and

energy demands due to longer shipping distances/ food miles (Pretty, Ball, Lang, & Morison, 2005). In light of these concerns and in response to the environmental challenges they present, consumers have turned their attention to the purchasing of localized food products. Across the local foods research, one of the factors consistently cited for motivating consumers in sourcing local is a concern for the environment (Dimitri & Greene, 2002; Zepeda & Deal, 2009; Zepeda & Leviten-Reid, 2004). By purchasing locally, consumers are able to reduce the food miles by which their food travels, decrease product packaging and emissions that accompany longer transportation routes, and foster the conservation of the natural environment through reduced monocropped farm production (Bloom, 2010).

### **Farmers' Market Environment: Design and Social Perceptions**

Generally speaking, the importance of the store environment as part of the overall shopping experience has a long and well established history in the marketing literature. The history of this research is outlined below. Following this history, the concepts of store design perceptions and store social perceptions are introduced and discussed. The study of these concepts in food retailing concludes the section.

As Turley and Milliman (2000) point out, store environmental research began in the mid-1960's with the works of researchers such as Cox (1964) and Smith and Curnow (1966) and their manipulation of various environmental elements in the retail setting. Research in this domain continued ultimately giving way to the watershed work of Kotler (1973). In this work, a new more encompassing term - the term of atmospherics - was introduced, defined and operationalized.

Atmospherics, according to Kotler, represents the “sensory qualities of space surrounding the purchase of an object” (p. 54). These qualities operate through the buyer’s perceptive lens influencing their informative and affective states and ultimately their purchase probability. While no empirical test of this atmosphere and purchase probability model was included as part of Kotler’s original article, the author did offer various examples across different contexts (antique store, restaurant, physician’s office) to support his model. Because of this study, its operationalization of the term atmospherics, and the propositions it put forth, many researchers point to Kotler (1973) as the seminal researcher in the area of store environment giving him credit for the genesis of the research stream for this topic (Turley & Milliman, 2000).

The initial research by Kotler (1973) purporting the influence of store atmospherics on shopper patronage was expanded by later researchers to include an examination of several independent atmospheric variables and the effect of these variables on numerous outcome measures. According to Berman and Evans (2012), store atmospheric variables studied to date have included: external variables (signs, entrances, landscapes, parking, congestion); interior variables (interior decoration, temperature, music, and cleanliness); store layout variables (merchandise displays, flow of shopper traffic, cash register placement); point-of-purchase variables (point-of-purchase displays, price displays, and usage instructions); and human variables (employee characteristics, crowding, and customer interactions). Researchers have sought to examine the impact of these atmospheric variables on a variety of outcomes including shopper merchandise perceptions (Zeithaml, 1988), service quality (Baker, Grewal, & Parasuraman, 1994), store image (Hu & Jasper, 2006), purchase

behavior (Mattila & Wirtz, 2001), word-of-mouth communications (Hsu, Huang, & Swanson, 2009), and customers' perceptions of sales associates (Sharma & Stafford, 2000).

Across all these works - from the seminal studies of Kotler to contemporary studies of today - research clearly demonstrates both the importance of atmospherics and the pervasive effects of atmospherics in the retail setting (Sharma & Stafford, 2000). In their synthesis of store atmospherics research, Turley and Milliman (2000) provide a summary of some 60 plus studies conducted within the store atmospherics research stream. As the authors point out, what is most interesting regarding the "diverse and eclectic" body of store atmospherics research is the fact that each of the store atmospheric studies conducted have found some type of statistically significant relationship between store atmosphere and consumer behavior (2000, p. 195).

Most recently, researchers have focused on developing a better understanding of the term store atmospherics through a multi-dimensional understanding of this construct. Impetus behind this work can be traced to Bitner (1992). In his research, Bitner added focus to the concept of store atmospherics by confining the concept to the built environment or the space in which consumer and employee interactions occur. Building on the work of Bitner, Baker, Parasuraman, Grewal, and Voss (2002) conceptualized store environment to be a multi-dimensional term comprised of three factors (social factors, design factors, and ambient factors). These factors, according to the authors, have a consistent and significant influence on consumers' perceptions of their shopping experience with this perception ultimately influencing consumers'

patronage intention in a given store environment. Two of the three factors - social factors and design factors - are included as part of this research study.

For farmers' markets, environmental factors are of paramount importance. At their very core, farmers' markets are social events which provide for consumers a retailing experience that incorporates atmosphere, entertainment, and community gathering together with the buying and selling of local foods (Bloom, 2010). The farmers' market environment is a unique atmosphere in which "economic interactions co-exist with social interactions through the contexts of community and place" (Hunt, 2007, p. 55).

This unique atmosphere has been found to be an important element drawing consumers to farmers' markets and influencing consumers' purchasing behavior once there. For example, in his 2007 study of vendors and customers at eight farmers' markets in Maine, Hunt found the farmers' market atmosphere to be the second most important reason consumers cited for shopping at these venues. For consumers, farmers' markets provided fun, event-like atmospheres fostering social interactions with producers as well as fellow consumers. These social interactions with vendors and consumers were found by Hunt to be important factors that influence the consumer's purchasing behavior at the farmers' markets. Consumers' enjoyment of the markets, their interactions with vendors, and the event-like atmosphere of the farmers' markets positively affected the amount consumers spent at the farmer's markets. This effect (of social interactions on amount spent) was even greater than the effect of household income on amount spent (Hunt, 2007).

## Local Foods Quality

Most research concurs that food quality is a distinct and separate concept from food safety (Brunsnø, et al., 2004). Additionally, food quality has been conceptualized as an attitudinal extension utilized by consumers to express the values they hold regarding food as they translate those values into behavioral intentions (Lazarova, 2010).

According to the FAO/WHO, food quality is a much broader term (in comparison to food safety) best defined in terms of the various product attributes that influence the value of a given food product in the mind of the consumer. Product attributes associated with food quality can include negative attributes such as “spoilage, contamination with filth, discoloration, off-odours [as well as] positive attributes such as the origin, colour, flavour, texture and processing method” (2003, p.3).

Furthermore, food quality has been delineated by some researchers into a multi-dimensional concept centered on consumer perceptions. As outlined by Darby and Karni (1973), the dimensions comprising food quality include search dimensions, experience dimensions, and credence dimensions. Search dimensions include those aspects of food quality which can be ascertained by the consumer at the time of purchase, while experience dimensions include those aspects of food quality that the consumer can only evaluate and ascertain post-purchase. In addition, credence attributes represent those quality attributes of which the consumer may never be fully knowledgeable. Unlike search and experience attributes of food quality which can be evaluated by the consumer (though the points of evaluation differ), credence attributes offer no means of absolute verification for the consumer.



Food quality is one of - if not the - most frequent term associated with local foods. Undeniably a number of researchers have pointed to positive food quality perceptions as the primary reason consumers provide for sourcing local food items (Bloom, 2010; Giraud, Bond, & Bond, 2005). For example, in a 2010 study of primary grocery shoppers, Onozaka, Nurse, and McFadden, found that when comparing produce grown locally versus produce grown domestically but not locally, consumers rated the locally-grown produce as superior in terms of freshness and eating quality. Consumer preference for this “superior quality” often translates into a willingness on the part of the consumer to not only purchase local foods but to pay a price-premium for these foods (Darby, et al., 2006).

This association between quality and locally-grown food is instrumental in drawing consumers to farmers’ markets. For example in Michigan, Conner, Colasanti, Ross, and Smalley (2010) found consumers’ desire for top quality products to be the chief factor motivating consumers to shop at a farmers’ market. Additionally, the authors found the quality of the products offered at the markets to have a positive impact on farmers’ market attendance. In their identification of farmers’ market consumers, Elepu and Mazzocco (2010) point to the importance of local foods quality as a key factor for maintaining consumer support of farmers’ markets and for recruiting new consumers to the markets. According to the authors, quality local foods are instrumental in retaining the patronage of two farmers’ market consumer groups - “market enthusiasts” and “serious shoppers”; furthermore, quality local foods are viewed by the authors as necessary in converting a third farmers’ market consumer group, “basic shoppers” into frequent farmers’ market customers.

## **Outcome Variables: Purchase Intention and Word-of-Mouth**

For this study, two outcome (dependent) variables will be investigated. These variables are purchase intention and word-of-mouth intention.

### *Purchase Intention*

Most of the research centered on local foods purchasing has not focused on consumers' intention to purchase. Rather the research has focused on understanding consumers' willingness to pay for local foods. Based on this research, Giraud, Bond, and Bond (2005) have been able to determine that a willingness to pay a price premium exists for local food products. However, while this premium price does exist, there is no exact statistic indicative of how much consumers are willing to pay extra for local food products. Instead, the best researchers can offer is a range with consumers on average expressing a willingness to pay between 23 and 27% extra for local food items (Carpio & Isengildina-Massa, 2009).

The reasons consumers give for their propensity to spend more on local food items varies but almost always includes a desire for quality and safety (Darby, et al., 2006). However, Darby, et al. are quick to point out that in addition to these "product" related factors, consumers also express a willingness to pay a premium price based on ideological functions that have become associated with local food items. Such ideological functions include the perceptions of purchasing local products to be more environmentally friendly and the perceptions that purchasing local food products is supportive of local agriculture and small farm production.

In examining propensity to pay for local foods in a cross channel setting, Darby, et al., 2006 found that grocery store customers as opposed to direct marketing

consumers are more sensitive to changes in price than to any other product attribute factor investigated by the researcher. While the exact reason for this price sensitivity is unknown, the researchers hypothesize that direct marketing consumers are more willing to accept the increase in prices given that they have already encountered larger opportunity costs in the form of extra (special) shopping trips as well as extra time sourcing the local products.

### *Word-of-Mouth Intention*

Word-of-mouth communication can be conceptualized as “informal [positive or negative] communications directed at other consumers about the ownership, usage, or characteristics of particular goods, services, or their sellers” (Westbrook, 1987, p. 261). Word-of-mouth information can be passed through verbal communication channels (as the term implies) as well as through communication technologies such as text messages, emails, and phone calls (Dougherty & Green, 2011). These communications can occur across various types of social networks including those with which the communicator has strong, previously established social connections as well as across those networks with which the communicator has weak social connections. Regardless of the communication channel or social network, positive word-of-mouth communication has been prized by retailers as a valuable means by which retailers can promote their products and services (Gremler, Gwinner, & Brow, 2001). This importance has resulted in a plethora of research studies and journal articles focused on this topic (Brown, Barry, Dacin, & Gunst, 2005).

The exact antecedents influencing word-of-mouth communications are yet to be fully understood. While previous works tended to focus predominately on the influence

of consumer satisfaction on word-of-mouth communication, more recent studies are beginning to question the nature and strength of this relationship (Mazzarol, Sweeney, & Soutar, 2007). Research has pointed to the fact that consumer satisfaction may serve as the primary catalyst for word-of-mouth communication in only 12% of cases (Mangold, Miller, & Brockway, 1999). More recent studies have found that other factors including consumer identification and commitment (Brown, et al., 2005), compensation and bargaining power (Cheung, Anitsal, & Anitsal, 2007), and the recognition of the word-of-mouth receiver's need for information (Mazzarol, et al., 2007) exert an influence on consumers engagement in word-of-mouth communication.

Because word-of-mouth communication is often generated and spread by consumers who have no official "ties" to the retailer or product, word-of-mouth communication is often perceived by consumers as more credible in comparison to paid advertisements. This credibility has made word-of-mouth communication a significant medium for influencing consumers' choices (Cheung, et al., 2007). Seminal research regarding this topic found word-of-mouth communication to be seven-to-nine times more effective than paid advertising in converting unfavorable or neutral consumer attitudes into positive ones (Day, 1971); more recently, work by Hogan, Lemon, and Libai (2004) found word-of-mouth to be three times more effective than company sponsored advertisements.

The importance of word-of-mouth communication is even more pronounced in the context of services and food products. The intangibility of services along with their decreased capacity for pre-purchase examination, compels consumers to rely on the word-of-mouth communications of others who have experienced the service under

consideration (Zeithaml, 1981). In the context of food shopping, positive word-of-mouth has been found to be influential on consumer's selection of a given food brand (East, Hammond, & Lomaz, 2008). In their study of word-of-mouth communications across twenty product and service categories, East, et al. found food product brands to be one of the top categories most influenced by word-of-mouth communications. Among consumers in the study, negative word-of-mouth was influential in detracting from their choice of a particular food brand in the grocery store setting. Conversely, positive word-of-mouth exerted an influence (much stronger than the influence engendered by negative word-of-mouth communications), increasing consumers' likelihood of purchasing a particular food brand in the grocery store setting.

Work regarding word-of-mouth communications and local foods is in its infancy. Emerging empirical work such as that by Dougherty and Green (2011) does offer impetus for the study of this concept in the local foods context. In their qualitative study of agricultural producers, restaurateurs, and tourists in Wisconsin, Dougherty and Green find positive word-of-mouth communications to be key in the establishment and maintenance of local food networks among producers, consumers, and restaurateurs. According to the authors, word-of-mouth is "the most important way that [local foods] producers meet buyers and . . . buyers [meet] producers." This work echoes the earlier work of Brehm and Eisenhauer (2008) who signify word-of-mouth communication to be the binding influence of the local foods system. For these authors, word-of-mouth communications forge the critical links between the supply-side and the demand-side of the local foods system.

## RESEARCH HYPOTHESES

### **Value of Food Novelty and Attitudes toward Food Quality Perceptions and Design Perceptions**

**H1: Consumers' values of food novelty are positively related to consumers' attitudes toward local foods quality perceptions.**

Consumers' value of food preparation is encapsulated in the measurement of food novelty. It is well established that the food preparation process influences an individual's overall assessment of food product quality (Brunsø, Fjord, & Grunert, 2002). According to Brunsø, et al., these "after purchase" experiences (which includes the process of food preparation) are just as important as pre-purchase extrinsic and intrinsic product cues in informing individuals' perceptions of and attitude toward food quality.

Additionally, according to Zepeda and Li (2006) consumers who cook as well as those who cook from scratch frequently place a high degree of importance on the freshness and quality of the food items they purchase. This importance has resulted in consumers with an interest in food preparation holding positive attitudes regarding the quality of local foods. For this group, these positive attitudes toward local food items are namely the result of the quality and freshness local foods are able to provide the consumer due in part to such production factors as reduced harvest and transit time (Zepeda and Li, 2006). Thus, based on the above, a relationship between consumers' value of food novelty and their attitude toward local foods quality appears to be justified.

**H2: Consumers' values of food novelty are positively related to consumers' attitudes toward design perceptions of the farmers' market.**

Consumers who value food novelty have a keen interest in food preparation often putting increased effort into the preparation of meals (Brunsnø, Fjord, & Grunert 2002). These consumers are highly involved in food preparation, food shopping, and take great care in seeking out food products which are fresh and of high quality (Zepeda and Li, 2006). Research has shown that consumer involvement can play a role in consumers' assessment of and engagement with the store environment. For example, uninvolved food shoppers take an uninterested approach to almost all aspects of the food shopping experience (Brunsnø, Fjord, & Grunert, 2002). Conversely, involved food shoppers have a heightened awareness of the store environment around them. Thus, given that consumers' who hold high values of food novelty can be understood as involved food shoppers (Brunsnø, et al., 2002) and that involved food shoppers tend to be more cognizant of store environments, there stands to be a relationship between consumers' value of food novelty and their attitude toward store environment as measured by store design perceptions.

Given their increased interest in food preparation and their focus on seeking out fresh, quality food products, individuals who value food novelty appear to share similar traits to Morschett, Swoboda, and Foscht's (2007) "quality oriented grocery shoppers". Quality oriented shoppers according to Morschett, et al., give increased attention to the quality and freshness of products offered by retailers. As a whole, this group of shoppers tends to demand a high quality product assortment, a high degree of

freshness in the products offered, and, most germane to the current hypothesis, a pleasant store atmosphere.

### **Value of Food Safety and Attitudes toward Food Quality Perceptions**

**H3: Consumers' values of food safety are positively related to consumers' attitudes toward local foods quality perceptions.**

A strong relationship exists between the concepts of food safety and food quality with the two terms often presented and discussed together within the research literature (Röhr, Lüddecke, Drusch, Müller, & Alvensleben, 2004). In many cases the connection between food quality and food safety is so pervasive that it has led some researchers to use the terms interchangeably as synonyms one for the other. Such use is, of course, incorrect as the two concepts are conceptually distinct, yet related (Grunert, 2005).

In the current study, consumers' value of food safety is hypothesized to impact their attitudes toward food quality perceptions. While this exact relationship has yet to be studied in the literature, studies do provide support for the proposal of such a relationship. For example, according to Röhr, et al. (2004), food safety is related to food quality in that food safety perceptions help inform the consumer's overall food quality perceptions. Food safety, as outlined by the authors, is one of at least three attributes the consumer uses in forming an overall evaluation of food quality. In addition, the concept of food quality has been conceptualized to be an attitudinal extension of food safety. In their study of organic foods, Michaelidou and Hassan (2008), found consumers' perceptions of food safety to be one of the most important aspects working to inform consumers' attitude toward overall food quality including the quality and safety of meat products. Finally, placing food quality as an intermediate concept between



consumers' values of food safety and their purchase intention is in keeping with other studies (Grunert, 2005) which have proposed food quality to be an intermediate or bridge concept. As such, food quality serves as a link between consumer values and the food product he/she is intending to purchase.

### **Value of Civic Engagement and Attitudes toward Social Perceptions and Food Quality Perceptions**

**H4: Consumers' values of civic engagement are positively related to consumers' attitudes toward social perceptions of the farmers' market.**

Without socialization, civic engagement cannot be realized. According to DeLind (2001), shared social connections and collective social responsibility serve as fundamental components of civic engagement. In order to be civically engaged, one must be connected with others whether through group participation, shared interactions, or other organized networks (Putman, 1993). For many consumers, the purchasing of local foods serves as one such shared interaction fostering relationships with other local foods consumers and vendors (Brehem & Eisenhauer, 2008). Given the importance of social connections to civic engagement, one would expect local foods consumers who value civic engagement to hold positive attitudes toward environments that allow them the opportunities to interact and form social connections both with other local foods shoppers as well as the store employees/ vendors. Thus a positive relationship is hypothesized between consumers' value of civic engagement and their attitude toward social perceptions of the farmers' market.

**H5: Consumers' values of civic engagement are positively related to consumers' attitudes toward local foods quality perceptions.**

A connection between civic engagement and attitude toward local foods quality is not addressed in the social or political sciences research literature. However, a relationship between these two concepts is alluded to in the local foods literature. Reference to this relationship is contained in those pieces of the local foods literature which relate to localized food production/consumption and the idea of civic agriculture (Lyson & Guptill, 2004). According to this body of work, positive attitudes regarding local foods quality serve as a common ethos among those consumers who are actively engaged in the local foods economy. These positive attitudes toward local foods quality do not simply drive consumers to seek out local products. The positive attitudes sustain consumers as they form social connections and a shared sense of community with other local foods consumers and producers (Lyson & Guptill, 2004).

The relationship between engagement and positive attitudes toward local foods quality is most pronounced in the direct-marketing channels (of which farmers' markets are included) (Lyson & Guptill, 2004). This finding should not be surprising given that direct-marketing channels afford consumers ample opportunities for interacting with other consumers and most importantly local foods producers. As a result of the above, it is hypothesized that a relationship does exist among local foods consumers' values of civic engagement and their attitudes toward local foods quality perceptions.

## **Value of Environmental Concern and Attitudes toward Food Quality Perceptions**

**H6: Consumers' values of environmental concern are positively related to consumers' attitudes toward local foods quality perceptions.**

To date no studies have examined the direct impact of consumers' environmental concern on their attitudes toward local foods quality. Yet, the local foods literature has alluded to a tightly woven connection between consumers' concern for the environment and food quality. Often these two concepts are cited as the primary factors motivating consumers to source food locally (Darby, et al., 2008; Bloom, 2010). According to Edwards-Jones, Milà i Canals, Hounsome, Truninger Koerber, Hounsome, Cross, York, Hospido, Plassmann, Harris, Edwards, Day, Tomos, Cowell, & Jones (2008) the research surrounding local foods not only assumes an association between quality and environmental benefit, it reinforces that association.

Additionally, researchers have pointed out an association existing between the environmental benefits of local foods and the quality of those food items. One of the environmental benefits most frequently cited as influential to the quality of local foods is the environmental benefit of decreased food miles. A reduction in food miles ultimately means that food products spend less time in transit from producer to consumer. This reduction in transit time helps to reduce mechanical damage during transport and reduce microbial spoilage during storage (Hinsch, Slaughter, Craig, & Thompson, 1993).

Thus based upon the above, it is hypothesized that consumers' environmental concern is positively related to consumers' attitude toward local foods quality.

## **Consumers' Attitudes toward Design Perceptions and the Impact on Purchase Intention and Word-of-Mouth Intention**

**H7: Consumers' attitudes toward design perceptions of the farmers' market are positively related to purchase intention.**

**H8: Consumers' attitudes toward design perceptions of the farmers' market are positively related to word-of-mouth intention.**

Research examining the direct impact of consumers' design perceptions on purchase behavior and word-of-mouth intention in the farmers' market channel is sporadic. Yet, store environment research in other contexts, does point to the fact that consumers' perceptions of a store's interior environment influence consumers' approach/avoidance behavior, consumers time spent in the store, and ultimately retail sales (Turley & Milliman, 2000). Additionally, Baker, et al. (2002) found consumers' assessments of store design to have a positive, indirect influence on consumers' store patronage intentions including their recommendation of the store to other consumers.

In the farmers' market channel, consumers' often rank the environment of farmers' markets including the festive atmosphere of the markets to be a key reason driving their patronage of these venues (Bloom, 2010). Numerous studies have found farmers' markets event-like atmosphere, their engaging and fun environment, along with the opportunities they afford for social interactions to be of high importance for consumers (Bloom, 2010; Eastwood,, Brooker, & Gray, 1999; Trivette, 2012). Consumers' positive perceptions of the farmers' market environment has been found to influence consumers' purchase intention specifically amount spent at the market (Hunt, 2007) as well at their overall attitude toward the market (Bloom, 2010).

Thus, based on the above, it is hypothesized that consumers' attitude toward store design perceptions is positively related to purchase behavior and word-of-mouth communications.

### **Consumers' Attitudes toward Social Perceptions and the Impact on Purchase Intention and Word-of-Mouth Intention**

**H9: Consumers' attitudes toward social perceptions of the farmers' market are positively related to purchase intention.**

**H10: Consumers' attitudes toward social perceptions of the farmers' market are positively related to word-of-mouth intention.**

Baker, et al. (2002) found social dimensions of a store's environment to exert a positive, indirect influence on consumers' store patronage intentions. Consumers' perceptions of the store's social atmosphere positively influenced their evaluation of service quality, their willingness to purchase at the store, as well as their propensity to tell others about their experiences with the store.

In the farmers' market context, social interactions are critical components of the overall atmosphere of the market. The opportunities for interactions with fellow shoppers and market vendors are highly valued among those who patronize farmers' markets (Bloom, 2010). Additionally, and of particular importance to this study, is the influence consumers' positive perceptions of the social dimension of farmers' markets have on their purchase intention. According to Hunt (2007), consumers' positive perceptions regarding the social interactions at the farmers' markets had a greater marginal effect on consumer spending than consumer income.

Thus, based on the above, it is hypothesized that store social perceptions are positively related to purchase behavior and word-of-mouth communications.

### **Consumers' Attitudes toward Food Quality Perceptions and the impact on Purchase Intention and Word-of-Mouth Intention**

**H11: Consumers' attitudes toward local foods quality perceptions are positively related to purchase intention.**

Darby, et al. (2006) were the first to point toward a positive relationship between consumers' favorable perceptions of local foods quality and the influence of those perceptions on purchase behavior. Since this initial work, studies have consistently found positive relationships to exist between perceptions of local foods quality and the purchase of local foods; this relationship has held constant across a variety of local food items (Jekanowski, Williams, & Schiek, 2000).

Furthermore, many studies have demonstrated that not only are consumers motivated to purchase local foods they are willing in many cases to pay an additional price premium for these foods. Many researchers believe this willingness to pay a price premium for local foods is due in part to the increased quality consumers ascribe to local foods (Loureiro & Hine, 2002). For example, in their 2009 study of South Carolina Consumers, Carpio and Isengildina-Massa found a positive relationship to exist between perceptions of product quality and the price premium consumers were willing to pay. In their study, consumers who perceived South Carolina agricultural products to be of higher quality were willing to purchase these products even at price premiums up to 11%.

Based upon the findings outlined above, it is hypothesized that consumers' attitudes toward local foods quality is positively related to purchase behavior.

**H12: Consumers' attitudes toward local foods quality perceptions are positively related to word-of-mouth intention.**

While numerous studies suggest a link between consumers' perceptions of product/ service quality and consumers' engagement in word-of-mouth activity (Cheung, et al., 2007; East, et al., 2008; Mazzarol, et al., 2007), studies examining the specific relationship between consumers' perceptions of local foods quality and consumers' engagement in word-of-mouth activity are almost nonexistent. A review of the literature revealed only one study in which the relationship between local foods and word-of-mouth activity was examined (albeit tangentially). This work by Dougherty and Green (2011) found consumers' perceptions of local food products to be influential in the word-of-mouth messages consumers' communicated about the farmers' market vendors offering the local food products. Consumers' positive evaluation of the local food products offered spurred the consumers to spread positive word-of-mouth messages. Unfortunately, in the study the specific product attributes which influenced consumers' engagement in the word-of-mouth activity were not clearly defined.

In contexts outside of the local foods setting, research has found a positive relationship to exist between consumers' perceptions of food quality and consumers' engagement in word-of-mouth activity. Nowhere is this relationship more evident than in the food service industry, an industry in which food quality perceptions keenly influence the word-of-mouth messages of consumers (Cronin, Brady, & Hult, 2000). For example, in their 2010 study of ethnic restaurant patrons, Ha and Jang, found

consumers' perceptions of food quality to have a positive effect on loyalty. (Two of the three constructs used by Ha and Jang as measures of loyalty focus on consumers' intention to engage in word-of-mouth activity.)

Based upon the findings outlined above, it is hypothesized that consumers' attitudes toward local food quality is positively related to consumers' word-of-mouth intentions.



## **CHAPTER III RESEARCH METHODOLOGY**

### **Sampling Frame, Sample, and Procedures**

The population for this study included all consumers who had purchased local food products at a farmers' market. Since it would be impossible (given limited time and resources) to survey this entire population, a sampling frame of consumers was obtained through a partnership with an on-line marketing research company - Qualtrics. Respondents comprising the sampling frame (n= 500) were solicited by email invitation to participate in the study. The respondents consisted of those consumers who purchased local food items from a farmers' market within the last twelve months. Each respondent who completed the survey received nominal compensation from Qualtrics.

Following paragraphs introducing the study and researcher, respondents were asked three screening questions.

First, respondents were presented the informed consent statement. Having read the statement, respondents were asked if they agreed to participate in the study. Selecting "yes" constituted their consent to participate and allowed the respondents to progress to the next screening question.

For the second screening question, respondents were asked if they had purchased any local food items within the past 12 months. (A definition of local foods items as those items produced within 100 miles of the respondent's residence was provided alongside the question.) Individuals who answered "yes" to this question progressed to the third and final screening question. Individuals who answered "no" to this question were not permitted to progress further into the survey.

A third and final screening question asked respondents if they had purchased local foods at a farmers' market during the previous 12 months. Respondents answering "yes" were allowed to progress to the remainder of the survey. Those answering "no" or "unsure/ not certain" were screened out of the survey<sup>†</sup>.

Participants satisfying the screening questions, were asked to respond to the survey items reflective of the latent constructs (food novelty, food safety, civic engagement, environmental concern, store design perceptions, store social perceptions, purchase intention, and word-of-mouth). A 7-point Likert scale was used for capturing participant responses. Following this were questions regarding participants' definitions of local foods, the distance from their homes to the farmers' market they most often frequent, as well as the frequency with which they visit the farmers' market. Questions soliciting demographic variables (gender, age, ethnicity, household income, highest level of education, number of persons in household, area of residence, zip code, and distance from farmers' market) concluded the survey.

## **Measures**

Existing measures and composite reliability values for each construct are listed in Appendix B. A discussion of the measurement items for each construct is listed below.

### *Food Novelty*

Developed by Brunsø and Grunert (1995), the Food-Related Lifestyles

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<sup>†</sup>In the pilot study, screening question 3 read "Concerning the local food purchases you have made during the past 12 months, where would you say a majority of these purchases have occurred?" Respondents were given 7 choices – "Farmers' Market", "CSA (Community Supported Agriculture) Arrangements", "Grocery Store", "Roadside Stand/ Farm Stand", "U-Pick Operations", "Uncertain/ Not Sure", and "Other". Respondents selecting "Farmers' Market" were allowed to progress to the remainder of the survey. Respondents selecting any other response besides "Farmers' Market" were not allowed to progress further into the survey. Due to high incidence rate (41%) obtained during the pilot study, screening question 3 was changed to its present form.

Instrument is a 69 item questionnaire measuring five major life domains. Given the need to develop a deeper understanding of the role food preparation behaviors play in local foods purchasing, one factor of the Food-Related Lifestyles Scale - Food Novelty - has been adopted for the present study.

The Food-Related Lifestyles Instrument has been shown to demonstrate wide cross-cultural validity as well as intra-cultural stability. Utilizing findings from nine large scale consumer surveys in different European cultures Scholder, et al. (2004) were able to test the cross cultural validity and intra-cultural stability of the Food-Related Lifestyles Scale across time. What the authors found was an instrument that demonstrated “superior performance and [one] that can be judged highly recommendable for all major applications in consumer research” (Scholder, et al., 2004, p. 210).

Slight modifications were made to the original scale items. Based upon feedback from faculty members, the final item reading “Recipes and articles on food from other culinary traditions make me experiment in the kitchen” was changed to read “Recipes on food from other cultures/ regions make me experiment in the kitchen”. This change was deemed necessary to add clarity to the scale item.

### *Food Safety*

Across the literature, a variety of means have been utilized by researchers to measure food safety. Open-ended questions, rating rubrics, and likert scale items have been utilized in attempts to better understand safety expectations before purchase as well as consumers’ experiences regarding food safety post-purchase. In this study, consumers’ value of food safety will be measured by modifying scales developed by Kamenidou, Priporas, Michailidis, & Mamalis (2003) and Michaelidou & Hassan (2008).

According to Kamenidou, et al., consumers' perceptions of product quality and safety can best be explained by three factors. These factors (sensory and price characteristics, safety issues, and ways of production and origin) taken together explain 60.9% of the total variance in consumers' perceptions of quality and safety.

To measure consumers' value of food safety, the second factor consisting of those items that reflect consumers' perceptions of food safety will be utilized with slight modification. First, the last item related to "quality certifications" will be deleted since it may or may not be relevant to all local food items sold at farmers' markets. In addition an extra statement related to "bacteria" and food safety will be added. (This statement was developed in consultation with a Retail, Hospitality, and Tourism Management Professor who has expertise in food safety subject matter.) The inclusion of an item related to "bacteria" is justified when one considers previous research which has demonstrated "bacteria" to be one of the major food safety concerns expressed by consumers (Pirog & Larson, 2007).

In addition to scale items from (Kamenidou, et al., 2003), two scale items were utilized from Michaelidou and Hassan's 2008 study of consumers' attitudes and purchase intentions of organic produce. The two items - "I am very concerned about the amount of artificial additives and preservatives in food" and "The quality and safety of meat nowadays concerns me" were included in this study with slight modifications. The first statement was broken into 2 separate statements, one measuring a concern for artificial additives and the other statement measuring a concern for preservatives. Additionally, the statement regarding meat quality and safety was changed to read "The safety of meat nowadays concerns me". Removing the term "quality" from the original

item measure was necessary since for this study, food “quality” and food “safety” are being conceptualized as separate constructs.

Based on a review of the items by faculty members, three additional item measures were added (“The safety of produce nowadays concerns me.” “The safety of our food is important to me.” “I think about food safety a lot.”) Each of these three items was developed by the author.

### *Civic Engagement*

While the concept of civic engagement has been studied extensively in the social and political sciences literature, there still exist a number of challenges surrounding the measurement of this construct. First, no common measure or standard for assessing civic engagement exists in the literature (Adler & Goggin, 2005). Indeed each researcher and each research article presents a different operationalization. Some researchers have opted to use measures such as church attendance, political involvement, volunteerism, or fraternal/club membership as a means of understanding civic engagement (Pattie et al., 2003; Costa and Kahn, 2003) while others have opted to measure this construct using statements that ask individuals to rate their level of concern in such areas as their community, neighborhood, and place-of-work (Brehm & Eisenhauer, 2008; DeLind & Bingen, 2007). However, if civic engagement is to be applied in the areas of agriculture and food systems, a better measure of this construct must be developed (Bagdonis et al., 2009).

Work by researchers such as Shah (1998) and Shah, Schmierbach, Hawkins, Espino, & Donovan (2002) do offer hope for the development of empirical measures for the concept of civic engagement. Using focus group research, Shah was able to

develop and utilize in structural equation modeling a five item measure of civic engagement. Items comprising this measure of civic engagement were taken from the Needham Life Style Survey and reflect two aspects of civic engagement - formal community group membership as well as participation in social activities. These two dimensions are in alignment with Putman's (1995) original discussion of civic engagement.

Shah's measure of civic engagement will be adopted for the present study. The five item measure is presented in Appendix B. Based on the feedback of faculty and subject matter experts, three changes were made. First, one of the five items - a measure of church attendance - was deleted. Additionally, an item measuring participation in public interest meetings was added. Finally, each of the original items were reworded to include the phrase "it is important that". In order for each item to serve as a measure of importance, the rewording was necessary. The rewording also allowed the original items to be changed from questions to declarative statements.

### *Environmental Concern*

Beginning in the 1970's, a variety of scales were introduced each purporting to measure the concept of environmental concern (Schultz, 2001). Many of these scales exhibited low reliabilities, a lack of theoretical grounding, and measurement inconsistencies (Stern & Dietz, 1994). Instead of advancing research into the topic of environmental concern, this vast number of measurement scales may have actually challenged, and as argued by some scholars, precipitated a decline in the research on environmental concern (Schultz, 2001).

For the present study, a measure of environmental concern developed by Bang, Ellinger, Hadjimarcou, and Traichal (2000) was utilized. This measure was selected in part due to the variety of items which comprise the scale. Items ranging from statements measuring concern for pollution and water usage to those assessing concern for land use are utilized. The inclusion of items representative of multiple environmental issues is common for scales measuring environmental concern and its justification has been supported across numerous previous studies (Follows & Jobber, 2000). Based upon the suggestion of two faculty subject-matter experts, an item specific to the original study for which the scale was developed was deleted. In place of this item, a measure designed to capture respondent's concern for farm-land loss in their community was added. Additionally, each of the items were rephrased from questions to declarative statements.

#### *Farmers' Market Environment*

For this study, scale items developed by Baker, et al. (2002) were utilized to gauge consumers' attitudes toward the environments of the farmers' markets they most frequently visit. In their study on the influence of store environmental cues on consumers' store choice criteria and store patronage intention, Baker, et al. (2002) conceptualize store environment to be a multi-dimensional term comprised of three factors (social factors, design factors, and ambient factors). These factors, according to the authors, have a consistent and significant influence on consumers' perceptions of their shopping experience with this perception ultimately influencing consumers' patronage intention in a given store environment.

For the present study, two (social factors and design factors) of the three factors comprising store environment are retained. It was determined a priori by the researcher and faculty mentors that the third factor (ambient factor) was not germane to the current study. This decision was made due to the fact that items comprising this factor focused exclusively on consumers' perception of the music played at a shopping site. This limited focus on store music makes this factor of little relevance for those consumers purchasing their local food items in a farmers' market channel. (Background music is usually not part of the coordinated store atmosphere in these locations.) Additionally, ambient factors were found by Baker, et al (2002) to have little impact on consumer perceptions when compared to social and design factors.

#### *Design Perception and Social Perception*

Three items were utilized by Baker, et al. (2002) to measure the design factor. These items were included in the present study with slight modification. The first item "pleasing color schemes" was re-worded to read "pleasing displays". This change was deemed necessary in order to make the scale item more applicable to the farmers' market store environment. Based on their prevalence in the farmers' market literature, two additional items "clear informational signs" and "high standards of cleanliness" were also added.

The three items employed by Baker, et al. (2002) in the measurement of the social factor were retained for the present study. One modification was made; the first item originally reading "well dressed employees" was changed to read "appropriately dressed employees". This change was apt given that farmers' market vendors would most likely not be described as "well-dressed".



The original items comprising the social factor focused extensively on the social interactions consumers were having with store employees. It was determined that additional items – particularly ones reflecting the interactions consumers have with other consumers were warranted. Thus, three additional items were added. Indeed, the importance of the social connections consumers build in purchasing local foods items, whether with the producers selling them the items or with other like-minded local foods consumers is well documented in the literature (Bloom, 2010). These new items included: 1) “Opportunities to discuss products with fellow shoppers”; 2) “Shoppers open to conversations”; and 3) “An overall, socially pleasant store environment”. These items were created by the researcher based on a review of the store environmental literature particularly Harris, Baron, and Parker (2010) and Bitner (1992).

#### *Local Foods Quality*

While the concept of food quality has received increased attention, particularly in regards to local foods, there remains no general consensus on how “food quality” is defined or the best manner by which it should be measured (Brunsø, et al., 2002). In fact, an entire journal issue of *Food Quality and Preference* (1995, volume 6) was once devoted to the myriad of ways food quality has been conceptualized. What is generally agreed upon is that food quality is a heterogeneous term encompassing such attributes as taste, process characteristics, freshness, and appearance (Grunert, 2005). Additionally, there is agreement across the literature that “food quality” is a distinct term from “perceptions of food quality”. Perceptions of food quality represents a higher order understanding and subjective evaluation on the part of the consumer akin to that of an attitudinal measure (Zeithaml, 1988; Röhr, et al., 2005). Food quality, on the other

hand, represents a more objective evaluation concerning the presence or absence of given quality attributes at a point in time (Grunert, 2005). Since the present study is concerned with food quality as an attitudinal concept, the subjective conceptualization, that of perception of food quality, is used.

A variety of scales purporting to measure perceived food quality can be found in the literature. Unfortunately, many of these scales have low reliability values (Worsley, Wang, & Hunter, 2010) or are comprised of items only tangential to the concept of quality (Jekanowski, Williams, & Schiek, 2000 ). These problems appear to be particularly pronounced within the local foods literature.

For this study, a scale measuring consumer's perception of food quality (adapted from a 2003 study by Kamenidou, et al.) was utilized. This particular scale was chosen for two reasons. First, items for the scale were measured in the context of fruit quality. Given that produce items (both fruits and vegetables) are the most frequently purchased local foods, the use of a scale developed and validated in this context appeared apt. Additionally, attributes comprising the perceived quality scale are almost exact replicas of those quality attributes cited in the local foods literature as important to consumers (e.g. - Bloom, 2010; Brown, 2002; Wise, et al., 2013).

Kamenidou, et al. (2003) developed the perception of food quality scale through a combination of qualitative and quantitative methods. A series of 3 focus groups were held resulting in a total of 14 quality attributes. These attributes combined with relevant quality characteristics identified in the literature were used to construct a 38 item questionnaire administered by the authors to a sample of  $n = 582$ . The questionnaire was analyzed using factor analysis. The results of the analysis produced a 14 item

solution assessing food quality across three dimensions – sensory characteristics, safety attributes, and means of production. (See table below.)

**Table 3: Food Quality Dimensions**

Factor	% of total variance	Reliability
Sensory characteristics	28.6%	.85
Safety attributes	21.1%	.89
Means of production	11.2%	.51

For this study only the first factor – sensory characteristics - was retained. Since the present study conceptualizes food safety as a separate construct – factor 2 was dropped. Additionally, factor 3 – means of production – was dropped due to its low alpha value. Before the retained measure was included in the instrument, changes were made. The attribute of price was dropped from this measure due to its low loading value in the original study (.53). Additionally, adjectives were added before each quality attribute. These adjectives were added to help make the items parallel with the store environment items. The adjectives selected for each attribute were chosen in consultation with faculty subject-matter experts.

#### *Purchase Intention*

In order to measure purchase intention, a three item measure was adapted from Vermeir & Verbeke's (2008) study of sustainable dairy products. The original semantic differential items used by the authors were rephrased for the present study. The new

items were reworded to be action-oriented. Additionally, a specific location “this farmers’ market” was specified in each item.

### *Word-of-Mouth Communication*

To capture word-of-mouth communication, a three item measure from Babin, Lee, Kim, and Griffin’s 2005 study of restaurant patronage was utilized. In their study, consumers used a 7-point Likert scale to assess agreement with 3 items capturing word-of-mouth intention. (“I will say positive things about this restaurant to other people”. “I will recommend it to someone who seeks my advice”. “I will encourage friends and relatives to visit the restaurant”.) An analysis of the data showed the three items to possess strong factor loadings as well as discriminant validity (AVE = .75). Additionally, the overall measure displayed high reliability ( $\alpha = .90$ ).

Each of the statements was modified for use in the current study. The reference to “restaurant” was removed. New phrases referring to “local foods” at “this farmers’ market” were added.

### **Instrument**

A web-based, self-administered survey was developed by the researcher. Layout of the survey followed recommendations for survey research as outlined by Churchill and Iacobucci (2002). Along with measures of the latent constructs, two questions regarding respondents’ definition of local foods also were included. A question asking for the distance between the respondent’s residence and the farmers’ market they most frequently visit and a question asking respondents the frequently with which they purchase local foods at the farmers’ market were also included. Questions soliciting demographic variables (gender, age, ethnicity, household income, highest

level of education, number of persons in household, area of residence, zip code, and distance from farmers' market) concluded the survey.

### **Validity and Pilot Testing**

In order to test for content validity, the research instrument was reviewed by a group of three faculty members in the Department of Retail, Hospitality, and Tourism Management at The University of Tennessee. The reviewers were asked to assess the instrument for any issues of content, clarity, grammar, etc. which may be apparent.

Based on feedback from the faculty members, the following changes were made:

- Adjectives were added to each of the food quality attributes listed as part of the food quality measure.
- A list of responses (every week, three times a week, twice a month, once a month, less than once a month, rarely) was added to the question "Please estimate how often you purchase local foods at this farmers' market".
- The measurement scale for the item related to local foods quality was changed from 1= Poor; 7 = Excellent to 1 = Strongly Disagree; 7 = Strongly Agree.
- In the survey questions, the font size for the words "important" and "frequently visit" was increased. Additionally, the words were underlined and placed in bold type.

Prior to conducting the research study with the full sample (n=500) the research instrument was pilot-tested. The sample for the pilot test included a convenience sample of adults ages 18 and older. A link to the survey instrument was distributed by e-mail and postings on two social media websites. A total of 97 adults participated in the pilot study. Of the 97 participants, 40 (41%) indicated they had purchased a

majority of their local foods from a farmers' market during the past 12 months. Because they had purchased a majority of their local foods from a farmers' market, these 40 participants were permitted to answer the remaining survey questions thereby completing the survey. According to Hill (1998), a sample of such size is considered satisfactory for pilot testing. The 40 participants encompassed 5 states - Florida, Kentucky, Minnesota, New Mexico and Tennessee, were predominately female (63%), were of Caucasian ethnicity (96%), and had a mean age of 49 years.

To test for consistency and reliability, Cronbach's Alpha was calculated for each of the scales comprising the survey instrument. The range of reliabilities was from .862 to .994. All Alpha values were well above the acceptable cut-off of .70. Alpha values for each scale are listed in Table 4.

**Table 4: Construct Reliabilities (n = 40)**

Construct	Number of Items	Alpha Value
Food Novelty	3	.86
Food Safety	10	.98
Civic Engagement	5	.89
Environmental Concern	6	.93
Design Perceptions	5	.95
Social Perceptions	6	.96
Local Foods Quality	7	.99
Word-of-Mouth	3	.99
Purchase Intention	3	.87

## **CONCLUSION**

Within chapter 3, the study's sampling frame, sample, and data collection procedures were outlined and discussed. Additionally, information regarding the selection of measurement items for each of the latent constructs was presented. An overview of the pilot test was offered. Using data collected during the pilot test, Cronbach's Alphas for each of the latent construct measures were provided.

In Chapter 4, descriptive statistics necessary for characterizing the sample will be presented. Differences between demographic variables and respondents' definition of locally-produced foods will be explored. Finally, through the use of Structural Equation Modeling, the research hypotheses will be tested.

## CHAPTER IV RESULTS

Chapter IV is divided into five sections. In the first section, a preliminary overview of the data is provided. This overview includes a reporting of the minimum values, maximum values, means, standard deviations, and measures of skewness and kurtosis for the survey measures. Also included in this first section is a discussion concerning the reliability of the scales measuring each construct. In the second section, demographic data necessary to characterize the sample is provided. Included in section three are results regarding respondents' definition of local foods, their purchasing frequency at farmers' markets, and their travel distance to farmers' markets. In section four, the CFA measurement model is presented and issues of convergent and discriminant validity are considered. Finally, in section five the full structural model is presented. Within this section, the research hypotheses are revisited, and the hypotheses are tested in light of the findings from the full structural model analysis.

A total of 515 surveys were returned within a 72 hour period. Of the 515 surveys, 30 were incomplete with missing data. The surveys with missing data were examined by the researcher. The examination revealed that the missing data were missing at random and not by design. For the items with missing data, none had 1% or more of respondents not answering. Thus, following recommendations outlined by Schafer and Graham (2002), the incomplete surveys were excluded from further analysis. A total of 485 useable surveys were submitted for further analysis.



## DATA OVERVIEW

### Means, Standard Deviations, Skewness, and Kurtosis

The Statistical Package for the Social Sciences (SPSS) 20, was used to provide a preliminary snapshot of the data. For each of the measurement items, the mean, standard deviation, and measures of skewness and kurtosis were computed. These values along with the minimum and maximum values of each measurement item are reported in Table 5.

For the measurement items, the mean ranged from a high of 6.67 (PI2 – “It is highly likely that I will buy local foods at this farmers’ market in the future”) to a low of 3.66 (CE2 – “It is important that I go to club meetings”). Overall the construct of civic engagement had some of the lowest mean values while the construct of purchase intention had some of the highest mean values.

In order to assess the normality of the data, values for skewness and kurtosis were computed. Skewness is an accepted measure used to determine the symmetry of a distribution with a skewness value of 0 representing a symmetric distribution. Kurtosis is a measure of the peak or flatness of the distribution with high values for kurtosis reflecting distributions with sharper peaks and heavier tails (Tamhane & Dunlop, 2000). In general, absolute values of skewness greater than 3 and absolute values of kurtosis greater than 10 indicate problems with data normality (Kline, 2005).

For the present data set, the highest absolute values of skewness (2.10) and kurtosis (5.91) were for the same item PI2 (“It is highly likely that I will buy local foods at this farmers’ market in the future”). Since none of the items had skewness values

greater than  $\pm 3$  or kurtosis values greater than  $\pm 10$ , normality of the data can be assumed.

**Table 5: Mean, Standard Deviation, Skewness, and Kurtosis**

Construct (1=Strongly Disagree; 7=Strongly Agree)	Item	Min	Max	Mean	STD	Skew.	Kurts.
Food Novelty	FN1	1	7	6.25	1.09	-2.05	5.31
	FN2	1	7	5.61	1.39	-1.14	1.15
	FN3	1	7	5.71	1.40	-1.27	1.47
Food Safety	FS1	1	7	5.74	1.37	-1.17	1.07
	FS2	1	7	5.85	1.24	-1.20	1.43
	FS3	1	7	5.89	1.21	-1.27	1.89
	FS4	1	7	5.83	1.21	-1.14	1.26
	FS5	1	7	5.81	1.27	-1.23	1.58
	FS6	1	7	5.83	1.24	-1.23	1.70
	FS7	1	7	5.83	1.21	-1.25	1.86
	FS8	1	7	5.69	1.24	-.982	1.02
	FS9	1	7	6.28	.979	-1.81	4.81
	FS10	1	7	5.56	1.33	-.826	.350
Civic Engagement	CE1	1	7	4.34	1.72	-.344	-.597
	CE2	1	7	3.66	1.82	.059	-.950
	CE3	1	7	5.03	1.59	-.716	.048
	CE4	1	7	4.53	1.63	-.499	-.346
	CE5	1	7	4.52	1.71	-.486	-.568

**Table 5. Continued.**

Construct (1=Strongly Disagree; 7=Strongly Agree)	Item	Min	Max	Mean	STD	Skew.	Kurts.
Environmental Concern	E1	1	7	5.96	1.16	-1.27	2.04
	E2	1	7	5.97	1.12	-1.41	2.97
	E3	1	7	5.78	1.26	-1.13	1.42
	E4	1	7	5.50	1.39	-.937	.676
	E5	1	7	5.55	1.30	-.933	.958
	E6	1	7	5.36	1.52	-.785	.044
Design Perceptions	DP1	1	7	5.48	1.22	-.688	.400
	DP2	1	7	5.26	1.33	-.512	-.110
	DP3	1	7	5.73	1.04	-.498	-.222
	DP4	1	7	5.48	1.26	-.810	-.639
	DP5	1	7	5.70	1.16	-.715	.212
Social Perceptions	SP1	1	7	5.50	1.25	-.645	.166
	SP2	1	7	6.03	.978	-.925	.709
	SP3	1	7	6.02	1.01	-1.19	2.04
	SP4	1	7	5.63	1.20	-.810	.533
	SP5	1	7	5.31	1.32	-.653	.256
	SP6	1	7	5.74	1.12	-.894	.882
Food Quality Perceptions	QP1	1	7	6.09	1.00	-1.15	.445
	QP2	1	7	6.12	.873	-.793	1.74
	QP3	1	7	6.16	.913	-1.16	1.53
	QP4	1	7	6.31	.810	-.967	.425

**Table 5. Continued.**

Construct (1=Strongly Disagree; 7=Strongly Agree)	Item	Min	Max	Mean	STD	Skew.	Kurts.
	QP5	1	7	6.19	.884	-1.09	1.33
	QP6	1	7	6.16	.901	-.969	.727
	QP7	1	7	6.23	.863	-1.06	.969
Purchase Intention	PI1	1	7	6.47	.880	-1.84	3.25
	PI2	1	7	6.67	.873	-2.10	5.91
	PI3	1	7	6.46	.868	-1.92	4.80
Word-of-Mouth	WM1	1	7	6.25	.976	-1.29	1.21
	WM2	1	7	6.33	.889	-1.24	1.14
	WM3	1	7	6.30	.965	-1.64	3.72

### Reliability

To evaluate internal consistency and reliability, Cronbach's alpha was computed for each latent construct. See Table 6. Alpha values ranged from .874 (Food Novelty) to .952 (Word-of-Mouth). Alpha values for all constructs were above the preferred cut-off level of .70 thus indicating high levels of internal consistency (Kline, 2005).

**Table 6: Construct Reliabilities (Main Study)**

Construct	Number of Items	Alpha Value
Food Novelty	3	.87
Food Safety	10	.92
Civic Engagement	5	.91
Environmental Concern	6	.93
Design Perceptions	5	.94
Social Perceptions	6	.94
Local Foods Quality	7	.95
Word-of-Mouth	3	.95
Purchase Intention	3	.95

## DATA DEMOGRAPHICS

At the conclusion of the survey, participants were asked a series of demographic questions necessary for characterizing the sample. Demographic data collected included gender, age, ethnicity, household income, educational attainment, household size, and area of residence. The demographic data is summarized in Table 7.

Of the survey respondents, over half (63.9%) were female. Most of the respondents were of white (Caucasian) ethnicity (69.9%) followed by Asian (12.8%), Hispanic (8.9%), African American (5.4%), and American Indian (.8%). A total of 2.3% indicated an ethnicity of “other” self-identifying as an ethnicity not listed as part of the question responses. Of the respondents, (26.6%) were between 25 and 34 years of age. Almost one quarter (24.1%) reported having an income between \$25,000 and

\$49,999 annually. A total of 14% reported an annual income less than \$25,000. Additionally, 26% of respondents reported an annual income between \$50,000 to \$74,999, 14.8% from \$75,000 to \$99,999, 7.8% from \$100,000 to \$124,999, and 4.9% between \$125,000 to \$149,999. Over eight percent (8.2%) reported an annual income over \$150,000. Respondents were well-educated with slightly over half (50.5%) reporting obtainment of a bachelor's, graduate, or professional degree. Finally, respondents tended to reside in either urban clusters (29.1%) or urbanized areas (21.9%).

In comparison to ethnic profiles obtained from the United States (US) Census Bureau (2013), a larger proportion of study respondents identified as white non-Hispanic/Latino (69.9% of respondents compared to 62.6% of US population) and Asian (12.8% of respondents compared to 5.3% of the US population). Fewer respondents identified their ethnicity as African American (5.4% of respondents compared to 13.2% of US population) or Hispanic (8.9% of respondents compared to 17.1% of US population).

In regards to household income, study respondents reported slightly greater earnings in comparison to the US population (US Census Bureau, 2012). More respondents indicated their household incomes to be between \$50,000 and \$74,999 (26% of respondents compared to 13.3% of US population) and \$75,000 to \$99,999 (14.8% of respondents compared to 11.7% of US population). The proportion of respondents (24.1%) and the US population (24.3%) with household income between \$25,000 and \$49,999 was almost the same. Of respondents, 14% reported household

income under \$25,000 compared to 24.7% of the US population. Additionally, 20.9% of respondents reported earnings over \$100,000 compared to 21.9% of the US population.

In comparison to the US population, respondents were well-educated with over half (50.7%) having obtained a Bachelor's degree or higher. This statistic is almost twice the proportion of the US population (28.5%) reporting the same educational attainment (US Census Bureau, 2013). Of the respondents 48.4% indicated completing high school and some college compared to 85.7% of the US population.

Based on US Census Bureau 2014 population projections, 61% of the US population were females and 64% males. A greater proportion of study respondents reported being female (63.9%). Slightly more than one-third of respondents (36.1%) were males.

**Table 7: Demographic Summary**

Demographics (n = 485)		Frequency	Percent
Gender	Male	175	36.1%
	Female	310	63.9%
Age	Under 25	87	17.9%
	25-34	129	26.6%
	35-44	95	19.6%
	45-54	86	17.7%
	55-64	88	18.1%
	65+	0	0%
Ethnicity	White (Caucasian)	339	69.9%
	Asian	62	12.8%
	Hispanic (Latino/ Spanish)	43	8.9%
	African American	26	5.4%
	American Indian	4	.8%
	Other	11	2.3%

**Table 7. Continued.**

Demographics (n = 485)		Frequency	Percent
Household Income	Under \$25,000	68	14%
	\$25,000 to \$49,999	117	24.1%
	\$50,000 to \$74,999	126	26%
	\$75,000 to \$99,999	72	14.8%
	\$100,000 to \$124,999	38	7.8%
	\$125,000 to \$149,999	24	4.9%
	\$150,000+	40	8.2%
Highest Educational Level	Less than high school	4	.8%
	High school diploma or GED	71	14.6%
	Some college or associates degree	164	33.8%
	Bachelor's degree	169	34.8%
	Graduate or professional degree	76	15.7%
	Other	1	.2%
Number in Household	1	75	15.5%
	2	148	30.5%
	3	119	24.5%
	4	78	16.1%
	5+	65	13.3%
Area of Residence	Small city or town, population less than 2,500	88	18.1%
	Urban cluster, population between 2,500 and 49,999	141	29.1%
	Urbanized area, population between 50,000 and 99,999	106	21.9%
	Metropolitan statistical area, population between 100,000 and 249,999	44	9.1%
	Metropolitan statistical area, population above 250,000	106	21.9%



## DEFINITION, CHARACTERISTICS, TRAVEL DISTANCE, FREQUENCY

### Defining Local Foods

In addition to the demographic questions, respondents were asked to select the option which best reflected their own definition of local foods. For the statement, “Although this study defined local foods as those produced within 100 miles of your residence, please select the option that best fits your definition of local food”, respondents were given six options from which to choose – within 10 miles of my residence, within 50 miles of my residence, within 100 miles of my residence, within my county, within my state, within my region. An almost equal percentage of respondents defined local foods as those produced within 10 miles of their residence (26.2%) or those produced within 50 miles of their residence (24.7%). Table 8 provides an overview of the responses.

**Table 8: Respondents Definition of Local Foods**

	Frequency	Percent
Within 10 miles of my residence	127	26.2%
Within 50 miles of my residence	120	24.7%
Within 100 miles of my residence	65	13.4%
Within my county	69	14.2%
Within my state	70	14.4%
Within my region	34	7.0%
Total	485	100%

Pearson's Chi-square was utilized in determining if a relationship existed between respondents' definition of locally-produced food and the demographic characteristics of gender, ethnicity, income, education, age, and community of residence. At the .05 significance level, no significant relationships were found between respondents' definition of local foods and their gender ( $p=.151$ ), ethnicity ( $p=.701$ ), income ( $p=.722$ ), or education ( $p=.101$ ).

For each of the local foods definition options, the mean age of respondents was calculated. The mean age for response options ranged from a high of 42 years of age for the response option "within my county" to a low of 36 years of age for the response options "within 10 miles of my residence" and "within my region". Given this narrow range of mean ages, testing for a difference between mean age and definition of locally-produced food was of little practical use.

While significant relationships were not found with the above demographic variables (gender, ethnicity, income, education), a significant relationship was found to exist between respondents' definition of locally-produced food and their community of residence ( $p=.001$ ). Given this, the adjusted residuals for each of the community of residence categories (small city or town, population less than 2,500; urban cluster, population between 2,500 and 49,999; urbanized area, population between 50,000 and 99,999; metropolitan statistical area with a population between 100,000 and 249,999; and metropolitan statistical area with a population above 250,000) were examined. Adjusted residuals around or above  $|2|$  indicate a greater likelihood of occurrence than would be expected by mere chance. For respondents residing in small cities or towns, a greater number than expected were likely to define local foods as those produced

within 50 miles of their residence (adjusted residual = 1.7). Alternatively, for respondents residing in the largest metropolitan statistical area a greater number than expected were more likely to define local foods as those produced within 100 miles of their residence (adjusted residual = 4.1).

### **Characteristics of Local Foods**

For the second question, respondents were asked to select characteristics they expect from local foods. Respondents were given seven characteristics from which to choose – produced by my neighbors, produced in a socially-responsible manner, come from community supported agriculture organizations, be environmentally safe, be organically grown, be subsidized by local government, and be produced and distributed in a sustainable way. Socially-responsible production and environmental safety were among the most frequently cited characteristics respondents expected of local foods. Subsidy by the local government was one of the least cited characteristics.

**Table 9: Characteristics of Local Foods**

	Frequency*	Percent
Produced by my neighbors	220	45.4%
Produced in a socially-responsible manner	350	72.2%
Come from community supported agriculture organizations	240	49.5%
Be environmentally safe	361	74.4%
Be organically grown	293	60.4%
Be subsidized by local government	72	14.8%
Be produced and distributed in a sustainable way	319	65.8%

\* Frequency is > 485 as respondents were able to select more than one characteristic

### Travel Distance and Purchasing Frequency

Finally, respondents were asked to estimate the distance between their home and the farmers' market they most frequent as well as how often they purchase local foods at that farmers' market. For reporting distance between home and the farmers' market they most frequently visit, respondents were provided five options: less than 2 miles, 2 – 3.9 miles, 4 – 5.9 miles, 6 – 7.9 miles, and 8 or more miles. Almost three-fourths (72.6%) of the sample, indicated the farmer's market they most frequently visit is less than 5.9 miles from their home. See Table 10.

**Table 10: Distance between House and Farmers' Market Frequently Visited**

	Frequency	Percent
Less than 2 miles	107	22.1%
2 to 3.9 miles	128	26.4%
4 to 5.9 miles	117	24.1%
6 to 7.9 miles	49	10.1%
8 or more miles	84	17.3%

Regarding the frequency with which they purchase local foods from the farmers' market, respondents were provided seven options from which to select. Options included: every week, three times a month, twice a month, once a month, less than once a month, and rarely. Most respondents indicated they regularly purchase local foods at the farmers' market with over three-fourths (75.4%) purchasing foods at the market at least twice per month. See Table 11.

**Table 11: Purchasing Frequency**

	Frequency	Percent
Every week	138	28.5%
Three times a month	97	20.0%
Twice a month	131	26.9%
Once a month	76	15.7%
Less than once a month	37	7.6%
Rarely	6	1.2%

To examine if a relationship existed between distance from the farmers' market and purchasing frequency, Spearman's Correlation was computed. At the .05 significance level, a significant relationship was found to exist between these two variables ( $\rho=.0194$ ;  $p<.001$ ). While there is a significant relationship between respondents' distance from the farmers' market and their purchasing frequency, the magnitude of this relationship is inconsequential with distance only explaining approximately 2% of the variation in purchasing frequency.

### **CONFIRMATORY FACTOR ANALYSIS**

For this study, Anderson and Gerbing's (1982), two-step approach to Structural Equation Modeling was followed. Before fitting the structural model, individual CFA's were conducted with each latent construct. Following this, a measurement model with all latent constructs correlated (food novelty, food safety, civic engagement, environmental concern, design perceptions, social perceptions, food quality perceptions, purchase intention, and word-of-mouth) was computed. IBM SPSS

Analysis of Moment Structures (AMOS) version 20 was utilized for testing both the measurement and structural models.

### **Model Estimation and Fit Indices**

Since the data comprising the research model were normally distributed and measured on a continuous scale, the parameters in the model were estimated using maximum-likelihood estimation (MLE). Through the use of MLE, the actual covariance matrices of the specified research model are compared to estimated covariance matrices from a best fitting model (Kline, 2005). To assess model fit, four fit statistics were examined. These included:  $\chi^2/df$  ratio, the comparative fit index (CFI), the Tucker Lewis index (TLI), and the root mean square error of approximation (RMSEA). Based on existing research, the following values were designated as benchmarks for assessing model fit:  $\chi^2/df$  ratio  $< 5$  = acceptable fit,  $< 2$  = good fit (Bolen, 1989); CFI  $\geq .80$  = acceptable fit,  $\geq .90$  = good fit (Kline, 2005); TLI  $\geq .90$  = acceptable fit (Hu & Bentler, 1999); RMSEA  $< .05$  = very good,  $< .08$  = acceptable,  $< .10$  = mediocre,  $\geq .10$  = poor approximation (Byrne, 2001).

The fit statistics in this study ( $\chi^2/df$ , CFI, TLI, and RMSEA) were chosen from what Hooper, Coughlan, and Mullen (2008) describe as an overwhelming abundance of fit indices. These four statistics were selected from this abundant mix based in part on their common use in the SEM literature as well as their ability to capture different aspects of model fit.

The chi-square statistic is one of the most commonly reported fit statistics in the SEM literature (Kline, 2005). As one of the absolute fit indices, this statistic assesses how well the proposed model fits the data. As such, it is a valuable indication for

determining the discrepancy between the sample data and the model as specified by the researcher (Hu & Bentler, 1999). Since the chi-square statistic alone is sensitive to sample size, the normed chi-square statistic ( $\chi^2/df$ ) was used for the present study.

Two incremental fit indices (TLI and CFI) were also used for assessing model fit. These statistics assess the relative fit of the proposed model by comparing the chi-square value of the model to the chi-square value of a default model in which all the measurement variables are uncorrelated (Hooper, et al., 2008). The Tucker Lewis index (TLI), in comparison to the traditional Normed Fit Index (NFI), is not sensitive to larger sample sizes thus making this statistic ideal for the present study. The Comparative Fit Index (CFI) is one of the most widely utilized and reported SEM fit statistics and one that is also least effected by sample size (Hooper, et al., 2008).

The final fit statistic used in this study is the RMSEA. This index was selected for its usefulness in assessing model parsimony. Additionally, including this index in SEM analysis has been strongly recommended by researchers including Byrne (2001), Hooper, et al. (2008), and Kline (2005).

### **Confirmatory Factor Analysis (CFA)**

A CFA was ran for each latent construct comprising the model. The resulting fit statistics are displayed in Table 12.

**Table 12: Latent Construct CFA's**

Construct	Items	X <sup>2</sup> (df)	X <sup>2</sup> /df <sup>1</sup>	CFI <sup>2</sup>	TLI <sup>3</sup>	RMSEA <sup>4</sup>
Food Novelty	3	-	-	-	-	.73
Food Safety	10	843 (35)	24.6	.81	.76	.22
Civic Engagement	5	128 (5)	25.6	.93	.86	.22
Environmental Concern	6	221 (9)	24.6	.90	.83	.22
Design Perceptions	5	52 (5)	10.4	.97	.93	.14
Social Perceptions	6	312.8 (9)	34.8	.82	.70	.26
Food Quality Perceptions	7	67 (14)	4.8	.97	.97	.09
Purchase Intention	3	-	-	-	-	.86
Word-of-Mouth	3	-	-	-	-	.89

<sup>1</sup> < 5 = acceptable fit, < 2 = good fit (Bollen, 1989); <sup>2</sup> ≥ .80 = acceptable fit, ≥ .90 = good fit (Kline, 2005);

<sup>3</sup> TLI ≥ .90 = acceptable fit (Hu & Bentler, 1999); <sup>4</sup> RMSEA < .05 = very good, < .08 = acceptable, < .10 = mediocre, ≥ .10 = poor approximation (Byrne, 2001)

For latent constructs with greater than three measurement items, fit indices (CFI and TLI) were calculated. In examining the fit indices, poor fit was found to be exhibited by five of the latent constructs – food safety, civic engagement, environmental concern, design perceptions, and social perceptions.

To improve the fit of the latent constructs the standardized residuals and modification indices were examined. In SEM, standardized residuals are important model components providing an estimate of the discrepancies between the covariance matrix of the hypothesized model and the sample covariance matrix. High standardized residual values are an indication of predication errors (Byren, 2001). Given this, factors



with large standardized residual values ( $> |4|$ ) were considered for deletion (Kline, 2005). Additionally, the modification indices for each factor were examined.

Modification indices provide an indication of model fit with high modification indices indicative of model misfit (Byrne, 2001). For those factors with large modification indices, co-variances were added between the error terms. It is worth noting that error co-variances were added only if there was theoretical justification for their addition.

The following latent constructs were modified:

**Food Safety** – Co-variances were added to the error terms associated with items FS 5 and FS 6, FS 7 and FS 8, FS 4 and FS 7.

**Civic Engagement** – Co-variances were added to the error terms associated with items CE 1 and CE 2, CE 2 and CE 5.

**Environmental Concern** – Co-variances were added to the error terms associated with the items EV 1 and EV 2, EV 1 and EV 5, EV 4 and EV 6.

**Design Perceptions** – Co-variances were added to the error terms associated with the items DP 1 and DP 2.

**Social Perceptions** – Items SP 5 and SP 6 had high standardized residuals ( $> |4|$ ). SP 6 had numerous residual values above the acceptable threshold including the highest residual value of 6.5. Given this, a decision was made to delete SP 6. The CFA was re-run resulting in unacceptable fit ( $\chi^2/df = 28.3$ , CFI = .89, TLI = .78, RMSEA = .237). A re-examination of the standardized residuals revealed that a high residual value (6.3) for SP 5 still remained. Given this high value, a decision was made to delete SP 5. Based on the modification indices, a

co-variance was added between the error terms associated with SP 2 and SP 4.

The CFA was re-run and good fit was achieved.

Based on the recommendations of Kenny, Kaniskan, and McCoach (2014), modifications were not made to the latent constructs of food novelty, purchase intention, and word-of-mouth despite their high RMSEA values. According to Kenny, et al. (2014), models with small degrees of freedom have artificially large RMSEA values. Thus, no modifications to these models (food novelty, purchase intention, word-of-mouth) could compensate for the inadequate  $\chi^2/df$  and RMSEA values caused by their small degrees of freedom.

Table 13 contains the modified fit indices for the latent constructs. The latent constructs which were modified are in bold.

**Table 13: Modified: Latent Construct CFA's**

Construct	Items	$X^2$ (df)	$X^2/df$	CFI	TLI	RMSEA
Food Novelty	3	-	-	-	-	.73
<b>Food Safety</b>	<b>10</b>	<b>293 (32)</b>	<b>9.2</b>	<b>.94</b>	<b>.91</b>	<b>.13</b>
<b>Civic Engagement</b>	<b>5</b>	<b>32 (3)</b>	<b>10.7</b>	<b>.98</b>	<b>.94</b>	<b>.14</b>
<b>Environmental Concern</b>	<b>6</b>	<b>72 (6)</b>	<b>12</b>	<b>.97</b>	<b>.92</b>	<b>.15</b>
<b>Design Perceptions</b>	<b>5</b>	<b>13.4 (4)</b>	<b>3.3</b>	<b>.99</b>	<b>.98</b>	<b>.07</b>
<b>Social Perceptions</b>	<b>4</b>	<b>3 (1)</b>	<b>3</b>	<b>.99</b>	<b>.99</b>	<b>.07</b>
Food Quality Perceptions	7	67 (14)	4.8	.97	.97	.09
Purchase Intention	3	-	-	-	-	.86
Word-of-Mouth	3	-	-	-	-	.89

The modifications outlined above did improve fit of the latent constructs. Values for CFI and TLI improved for all the constructs modified. Additionally, RMSEA values improved for the constructs of design perceptions and social perceptions. RMSEA values for food safety, civic engagement, and environmental concern did improve, but these values are still beyond the acceptable cut-off. Given the other fit indices were acceptable and in light of the suggestions of Kenny, et. al. (2014) and Byrne (2001) regarding RMSEA values and individual construct CFA's, a decision was made to accept the CFA fit statistics and proceed with fitting the full measurement model.

### Measurement Model

With the modifications outlined in the previous section, the full measurement model was run. Good model fit was obtained ( $\chi^2/df = 2.4$ , CFI = .93, TLI = .92, RMSEA = .05). However, an examination of the standardized residuals revealed high residual values for factors SP 1 and FS 9. Both of these factors had numerous residual values above the cut-off of  $|4|$  (Kline, 2005). Factors SP 1 and FS 9 were dropped. The revised model was re-ran with improved fit ( $\chi^2/df = 2.2$ , CFI = .94, TLI = .93, RMSEA = .05).

Table 14 contains the correlations between the latent constructs.

**Table 14: Latent Construct Correlations**

	FN	FS	CE	EV	DP	SP	QP	WOM
Food Novelty (FN)								
Food Safety (FS)	.34							
Civic Engagement (CE)	.43	.25						
Environmental Concern (EV)	.43	.56	.47					
Design Perceptions (DP)	.42	.23	.35	.44				
Social Perceptions (SP)	.23	.24	.21	.38	.64			
Food Quality Perceptions (QP)	.33	.36	.12	.35	.55	.60		
Word of Mouth (WOM)	.32	.33	.11	.34	.50	.55	.72	
Purchase Intention (PI)	.26	.33	.03	.27	.34	.44	.66	.81

An examination of the correlations among the latent constructs revealed a strong correlation between the dependent constructs of word-of-mouth and purchase intention ( $r = .81$ ). The research literature offers various approaches for addressing strongly correlated dependent constructs. One approach as outlined by Allen (1997), is to simply drop one of the highly correlated constructs. This approach is suggested as an acceptable solution since both of the highly correlated constructs are empirically measuring the same thing. This approach, however, was not considered to be acceptable for use in the present study since the constructs of purchase intention and word-of-mouth are consistently conceptualized, measured, and modeled as different outcome behaviors in the extant literature.

An additional approach for addressing highly correlated constructs does not entail dropping any of the constructs or deleting any of the measurement items. This approach entails re-organizing the highly-correlated constructs into a second-order factor structure (Kline, 2005). This approach was applied to the measurement model with the constructs of word-of-mouth and purchase intention configured to load on a new latent construct tentatively termed “outcomes”. A comparison of the modified measurement model (with the second-order factor structure) to the original measurement model is provided in Table 15. As is evident from the table, modifying the measurement model with the second-order factor structure did not improve the overall fit of the measurement model. In fact, it made the fit worse.

**Table 15: Comparison Between Measurement Models**

Original Measurement Model				Modified Measurement Model with Second Order Factor		
Construct	Item	Loading	$\alpha$	Construct	Item	Loading
Word-of-Mouth	WM 1	.92	.95	Word-of-Mouth	WM 1	.92
	WM 2	.89			WM 2	.90
	WM 3	.89			WM 3	.89
Purchase Intention	PI 1	.91	.95	Purchase Intention	PI 1	.91
	PI 2	.89			PI 2	.89
	PI 3	.87			PI 3	.87
				Outcomes	WOM	.95
					PI	.86
Fit Statistics				Fit Statistics		
	$X^2/df$	2.2		$X^2/df$	2.4	
	CFI	.94		CFI	.93	
	TLI	.93		TLI	.92	
	RMSEA	.05		RMSEA	.06	

Since re-ordering the constructs into a second-order factor structure did not improve model fit, the decision was made to retain the factors as two separate latent constructs. The decision to retain the constructs as originally modeled (despite their strong correlations) is supported by Kline (2005), who states that correlations between latent construct below the level of ( $r=.85$ ) are acceptable. Additionally, Grewal, Cote,

and Baumgartner (2004) state that correlations in the range of .7 or .8 are fairly common in SEM, and constructs with correlation values within this range will probably be distinct from each other. Finally, retaining both constructs as separate items is further supported by an examination of the AVE and SIC estimates (Fornell & Larker, 1981). These estimates demonstrate that though the constructs of word-of-mouth and purchase intention are strongly correlated, the constructs do indeed possess discriminant validity. See Table 17.

Table 16 contains a final list of measurement items comprising each latent construct. Included in this table are the standardized loadings for each measurement item, Average Variance Extracted (AVE) for each latent construct and Composite Reliability (CR) for each latent construct.

**Table 16: Standardized Loadings, AVE Values, Alphas**

Construct	Item	Standardized Loading	AVE	CR
Food Novelty	FN 1	.79	.71	.87
	FN 2	.86		
	FN 3	.87		
Food Safety	FS 1	.86	.61	.94
	FS 2	.95		
	FS 3	.94		
	FS 4	.71		
	FS 5	.78		
	FS 6	.75		

**Table 16. Continued.**

Construct	Item	Standardized Loading	AVE	CR
	FS 7	.64		
	FS 8	.68		
	FS 10	.62		
Civic Engagement	CE 1	.73	.67	.91
	CE 2	.76		
	CE 3	.80		
	CE 4	.93		
	CE 5	.86		
Environmental Concern	EV 1	.84	.62	.93
	EV 2	.86		
	EV 3	.86		
	EV 4	.74		
	EV 5	.84		
	EV 6	.64		
Design Perceptions	DP 1	.80	.61	.94
	DP 2	.85		
	DP 3	.79		
	DP 4	.79		
	DP 5	.74		
Social Perceptions	SP 2	.95	.72	.84
	SP 3	.87		

**Table 16. Continued.**

Construct	Item	Standardized Loading	AVE	CR
	SP 4	.71		
Food Quality Perceptions	QP 1	.77	.66	.95
	QP 2	.85		
	QP 3	.83		
	QP 4	.84		
	QP 5	.85		
	QP 6	.83		
	QP 7	.73		
Purchase Intention	PI 1	.91	.79	.95
	PI 2	.89		
	PI 3	.87		
Word-of-Mouth	WM 1	.92	.81	.95
	WM 2	.89		
	WM 3	.89		

### **Convergent Validity**

Convergent validity is a measure of the extent to which the observed items for a particular latent construct converge to reflect that construct. In Structural Equation Modeling, a common method of assessing convergent validity is to examine 1) the standardized loadings for each measurement item comprising a given latent construct and 2) the Average Variance Extracted (AVE) for each of the latent constructs.



The standardized loadings for each measurement item provide an indication of how strongly a particular measurement item is reflective of the latent construct it is intended to measure. To establish adequate convergent validity, all loadings should be at least .5, with loadings .7 or greater preferred (Kline, 2005). Standardized loadings for the measurement items in the present study ranged from a high of .95 for factors FS 2 and SP 2 to a low of .62 for factor FS 10. As shown in Table 16, all standardized loadings were above the .5 minimum threshold with only four of the items having standardized loading below the preferable threshold of .70.

Additionally, in order to establish convergent validity, AVE statistics for each of the latent constructs must be considered. For latent constructs, AVE statistics reveal the amount of variance captured by the given latent construct in relation to measurement error for that construct. To infer convergent validity, an AVE statistic above .50 is required (Fornell & Larcker, 1981). In this study, AVE statistics ranged from a low of .61 (food safety and design perceptions) to a high of .81 (word-of-mouth). See Table 17. No AVE statistic fell below the .50 cut-off.

Based on the standardized loadings for the measurement items and AVE statistics for each of the latent constructs, convergent validity can be assumed.

### **Discriminant Validity**

Discriminant validity assesses the extent to which each latent construct is dissimilar from the other latent constructs in the model. In SEM, a common method of establishing discriminant validity is to compare the AVE of each latent construct against the squared interconstruct correlation (SIC) estimates (Kline, 2005). AVE statistics larger than the SIC estimates indicate the measurement items for a latent construct

have more in common with the given latent construct than they do with the other constructs in the model.

Contained in Table 17 are the AVE statistics for each latent construct as well as the SIC estimates between constructs. All AVE statistics for the latent constructs were larger than the SIC estimates between the constructs thus indicating discriminant validity.

**Table 17: AVE Statistics and SIC Estimates**

Construct	FN	FS	CE	EV	DP	SP	QP	PI	WM
Food Novelty (FN)	<b>.71</b>								
Food Safety (FS)	.12	<b>.61</b>							
Civic Engagement (CE)	.18	.06	<b>.67</b>						
Environmental Concern (EV)	.18	.31	.22	<b>.62</b>					
Design Perceptions (DP)	.18	.07	.12	.19	<b>.61</b>				
Social Perceptions (SP)	.08	.09	.04	.14	.41	<b>.72</b>			
Food Quality Perceptions (QP)	.11	.12	.01	.12	.30	.36	<b>.66</b>		
Purchase Intention (PI)	.07	.11	.001	.07	.12	.19	.44	<b>.79</b>	
Word-of-Mouth (WM)	.10	.11	.01	.12	.25	.30	.52	.67	<b>.81</b>

Diagonal entries are the AVE statistic for each latent construct; off-diagonal are the SIC estimates between the constructs

## STRUCTURAL MODEL AND HYPOTHESIS TESTING

With acceptable fit obtained for the measurement model, the full structural model with the hypothesized paths was run. This initial attempt at fitting the structural model

resulted in adequate fit ( $\chi^2/df = 2.88$ , CFI = .91, TLI = .90, RMSEA = .062). An examination of the modification indices revealed high indices between the error terms associated with the latent constructs of purchase intention and word-of-mouth (147.7) and error terms associated with the latent constructs of design perceptions and social perceptions (126.1). These error terms were allowed to co-vary, and the model was re-ran resulting in better fit ( $\chi^2/df = 2.44$ , CFI = .93, TLI = .92, RMSEA = .054).

The research hypotheses were tested in light of the findings from the full structural model. Results for the proposed hypotheses are outlined in Table 18.

**Table 18: Hypotheses and Results**

	Structural Path	Standardized Estimate	Standard Error	p-value	Result
H1 (+)	Value of food novelty → attitude toward local foods quality	.23	.05	<.001	Supported
H2 (+)	Value of food novelty → attitude toward farmers' market design perceptions	.33	.05	<.001	Supported
H3 (+)	Value of food safety → attitude toward local foods quality	.24	.04	<.001	Supported
H4 (+)	Value of civic engagement → attitude toward farmers' market social perceptions	.09	.03	.025	Supported
H5 (+)	Value of civic engagement → attitude toward local foods quality	-.13	.04	.017	Not Supported

**Table 18. Continued.**

	Structural Path	Standardized Estimate	Standard Error	p-value	Result
H6 (+)	Value of environmental concern → attitude toward local food quality	.17	.06	.011	Supported
H7 (+)	Attitude toward farmers' market design perceptions → purchase intention	-.06	.05	.249	Not Supported
H8 (+)	Attitude toward farmers' market design perceptions → word-of-mouth intention	.11	.05	.031	Supported
H9 (+)	Attitude toward farmers' market social perceptions → purchase intention	.13	.04	.007	Supported
H10 (+)	Attitude toward farmers' market social perceptions → word-of-mouth intention	.17	.04	<.001	Supported
H11 (+)	Attitude toward local foods quality perception → purchase intention	.64	.05	<.001	Supported
H12 (+)	Attitude toward local foods quality perception → word-of-mouth intention	.62	.05	<.001	Supported

## Hypothesis Testing

**H1: Consumers' values of food novelty are positively related to consumers' attitudes toward local foods quality perceptions.**

H1 was supported. The relationship between consumer's value of food novelty and their attitude toward local foods quality perceptions was positive and significant ( $\beta = .23$ ,  $p = <.001$ ).

**H2: Consumers' values of food novelty are positively related to consumers' attitudes toward design perceptions of the farmers' market.**

H2 was supported. The relationship between consumer's values of food novelty and their attitudes toward design perceptions of the farmers' market was positive and significant ( $\beta = .33$ ,  $p = <.001$ ).

**H3: Consumers' values of food safety are positively related to consumers' attitudes toward local foods quality perceptions**

H3 was supported. The relationship between consumers' values of food safety and their attitudes toward local foods quality perceptions was positive and significant ( $\beta = .24$ ,  $p = <.001$ ).

**H4: Consumers' values of civic engagement are positively related to consumers' attitudes toward social perceptions of the farmers' market.**

H4 was supported. The relationship between consumers' values of civic engagement and their attitudes toward social perceptions of the farmers' market was positive and significant ( $\beta = .09$ ,  $p = .025$ ).

**H5: Consumers' values of civic engagement are positively related to consumers' attitudes toward local foods quality perceptions.**

H5 was not supported. The relationship between consumers' values of civic engagement and their attitudes toward local foods quality perceptions was significant, but the relationship was not positive as originally hypothesized ( $\beta = -.13$ ,  $p = .017$ ).

**H6: Consumers' values of environmental concern are positively related to consumers' attitudes toward local foods quality perceptions.**

H6 was supported. The relationship between consumers' values of environmental concern and their attitudes toward local foods quality perceptions was positive and significant ( $\beta = .17$ ,  $p = .011$ ).

**H7: Consumers' attitudes toward design perceptions of the farmers' market are positively related to purchase intention.**

H7 was not supported. The relationship between consumers' attitudes toward design perceptions of the farmers' market and their purchase intention was neither positive nor significant ( $\beta = -.06$ ,  $p = .249$ ).

**H8: Consumers' attitudes toward design perceptions of the farmers' market are positively related to word-of-mouth intentions.**

H8 was supported. The relationship between consumers' attitudes toward design perceptions of the farmers' market and their word-of-mouth intentions was positive and significant ( $\beta = .11$ ,  $p = .031$ ).

**H9: Consumers' attitudes toward social perceptions of the farmers' market are positively related to purchase intention.**

H9 was supported. The relationship between consumers' attitudes toward social perceptions of the farmers' market and their purchase intention was positive and significant ( $\beta = .13$ ,  $p = .007$ ).

**H10: Consumers' attitudes toward social perceptions of the farmers' market are positively related to word-of-mouth intentions.**

H10 was supported. The relationship between consumers' attitudes toward social perceptions of the farmers' market and their word-of-mouth intentions was positive and significant ( $\beta = .17$ ,  $p = <.001$ ).

**H11: Consumers' attitudes toward local foods quality perceptions are positively related to purchase intention.**

H11 was supported. The relationship between consumers' attitudes toward local foods quality perceptions and their purchase intention was positive and significant ( $\beta = .64$ ,  $p = <.001$ ).

**H12: Consumers' attitudes toward local foods quality perceptions are positively related to word-of-mouth intentions.**

H12 was supported. The relationship between consumers' attitudes toward local foods quality perceptions and their word-of-mouth intentions was positive and significant ( $\beta = .62$ ,  $p <.001$ ).

## **CONCLUSION**

Within Chapter 4, results from the data analysis were presented. In the beginning of the chapter, the process of data screening as well as tests for normality

were discussed. Demographic data necessary for characterizing the sample were computed. Additionally, frequencies for respondents' definition of locally-produced food and the characteristics they expect in locally-produced food were calculated. The distance from respondents' homes to the farmers' market they most often visit was computed. A test of correlation between distance and purchasing frequency was performed. In the final sections of the chapter, the measurement model was fit. After obtaining appropriate fit, the full structural model was run. Following the convergence of an acceptable structural model, the hypotheses were tested.



## **CHAPTER V**

### **DISCUSSION, LIMITATIONS, APPLICATIONS, FUTURE RESEARCH**

The primary goal of this study was to develop a better understanding of consumers who source locally-produced foods from farmers' markets. Using the theoretical lenses of Value-Attitude-Behavior Theory and Theory of Planned Behavior, this study examined the impact of values (food novelty, food safety, civic engagement, and environmental concern) on consumers' attitudes regarding farmers' market design perceptions, farmers' market social perceptions, and local foods quality perceptions. The impact of these attitudes on purchase intentions and word-of-mouth communication was explored.

Specifically, this study was driven by the following research objectives:

- Test Homer and Kahle's (1998) Value-Attitude-Behavior Theory in the context of locally-produced foods in the farmers' market setting.
- Assess the variations by which consumers purchasing local foods through farmers' market channels define "local foods".
- Examine the relationship between consumers' values of food novelty and their attitudes toward design perceptions and food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of food safety and their attitudes toward food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of civic engagement and their attitudes toward social perceptions and food quality perceptions in the farmers' market channel.

- Examine the relationship between consumers' values of environmental concern and their attitudes toward food quality perceptions in the farmers' market channel.
- Examine the relationship between consumers' values of food novelty, consumers' attitudes toward design perceptions, and consumers' purchase intention and word-of-mouth communication in the farmers' market channel.
- Examine the relationship between consumers' values of civic engagement, consumers' attitudes toward social perceptions, and consumers' purchase intention and word-of-mouth communication in the farmers' market channel.
- Examine the relationship between consumers' values of food novelty, food safety, civic engagement, and environmental concern, consumers' attitudes toward food quality perceptions, and consumers' purchase intention and word-of-mouth communication in the farmers' market channel.

To achieve the study objectives, a web-based, self-administered survey instrument was used in collecting data from a consumer panel of 485 respondents. Through statistical testing using SPSS, a demographic overview of the sample was provided. Additionally, through the use of AMOS and structural equation modeling, research hypotheses were tested.

This final chapter discusses the results in light of current research literature. Additionally, limitations of the present study are considered. The ability of the limitations to serve as springboards for future research is delineated. This chapter concludes with implications for practice and research.

## DEMOGRAPHICS, LOCAL FOODS DEFINITION, FREQUENCY

### Demographics

Based on parameters specified by the researcher, adult shoppers (18 years and older) who purchased local foods from a farmers' market within the past year were eligible for participation. A review of demographic data reveals respondents to be predominately white non-Hispanic/ Latino, middle-to-upper income, well-educated females.

This demographic profile mirrors the profile of farmers' market shoppers identified in other research studies. For example, studies have clearly shown farmers' market customers to be predominately white non-Hispanic/ Latino (Conner, et al., 2010; Elepua & Mazzocco, 2010; Onianwa, Wheelock, and Mojica, 2005). The extant research offers a less clear picture, however, in regards to the income of these farmers' market customers. While several studies have found on average farmers' market customers have a household income of \$50,000 per year (Byker, et al., 2012), other studies such as Zepeda (2009) found farmers' market customers to have lower incomes than those customers who shopped at other food outlets such as supermarkets or grocery stores. In the present study, the largest percentage of farmers' market customers reported household income between \$50,000 to \$74,000 per year.

As with respondents in the present study, existing research found farmers' market customers to be well-educated with 60% to 94% attaining at least some level of college education (Byker, et al., 2012). According to Onianwa, et al. (2005), level of educational achievement is one of the best predictors of direct-market customers.

Regarding gender, previous studies of farmers' market patrons reveal the patrons to be

predominately female (Byker, et al., 2012; Gumirakiza, Curtis, & Bosworth, 2014 & Zepeda, 2009). Implications of these findings are presented later in the chapter.

### **Local Foods Definitions**

A commonly agreed upon definition for local foods does not exist (Hinrichs, 2003). Since consumers are likely to conceptualize local foods in a variety of ways (travel distance, geographic boundaries, food miles), participants in the present study were provided response options using geo-political boundaries (city, community, county) and distance (10 miles, 50 miles, 100 miles). An almost equal percentage of respondents defined local foods as those foods produced within 10 miles of their residence (26.2%) or those foods produced within 50 miles of their residence (24.7%).

These definitions are different from those obtained by Campbell (2011). In his study of consumers sourcing local foods in the grocery store channel, Campbell found for a majority of respondents local foods were best described as those foods produced within the respondents' county of residence or those foods produced within 50 miles of their residence. The differences between these two studies in terms of how respondents define local foods could be due to the different channels within which the respondents were primarily sourcing local foods (farmers' market versus grocery store respectively).

This explanation, however, ignores the fact that a commonly agreed upon definition for local foods is not held by all farmers' market consumers. An examination of the research literature reveals that within the farmers' market channel, consumers use different means of describing local. Descriptions used by farmers' market

consumers include reference points ranging from neighborhood, county, state and region (Zepeda & Leviten-Reid, 2004; Smithers, Lamarche, Joseph, 2008).

Given the findings of previous research studies as well as findings of the current study, all that can clearly be concluded is local foods remains a fluid concept with consumers in both in-direct and direct marketing channels employing a variety of reference points (driving distance, geographic boundaries, miles) when describing the concept.

In light of these findings, producers selling local food items directly to consumers as well as retailers offering locally-grown items, must remain keenly aware of the different ways by which consumers conceptualize local. This awareness is critical as producers and retailers craft marketing messages promoting local. Both groups may find it beneficial to explicitly state the parameters by which they are defining local. Providing such a definition is of even greater importance to grocery store retailers who typically offer a variety of locally-produced products sourced across numerous producers.

### **Demographic Differences in Defining Local Foods**

Previous studies have pointed to differences among demographic groups in terms of how local foods are defined (Zepeda & Leviten-Reid, 2004) In the present study, no differences were found between respondents' definitions of local foods and demographics of ethnicity, income, education, and gender. A significant difference was found between the definition of local foods used by respondents and their communities of residence. Respondents living in small cities and towns were more likely to use restrictive parameters defining local foods as those produced within 50 miles of their

residence. Respondents living in large metropolitan statistical areas were more likely to define local foods broadly – using local to describe those foods produced within 100 miles of their residence.

The current research is void of studies examining differences between how individuals define local foods and their community of residence. However, differences between urban and rural local foods shoppers in terms of their farmers' market patronage and general interest in local foods have been examined. Rural local foods shoppers in comparison to their urban counterparts tend to have an increased interest in local foods, heightened frequency of farmers' market patronage, and increase likelihood of purchasing local foods for civic reasons (to support local businesses/community) (Weatherell, Tregear, & Allison, 2003). While no differences were found between rural and urban local foods consumers in terms of their purchasing patterns, Selfa and Qazi (2004) did find differences in their underlying motivations for purchasing local foods with rural shoppers more likely to make the link between purchasing local foods and supporting local farmers. These differences between rural and urban local foods shoppers lend credence to the differences found in the present study between respondents' community of residence (small cities and towns and large metropolitan statistical areas) and their definitions of local foods.

Given these findings, practitioners (such as Extension Agents) working in the areas of local foods production, must give careful consideration to the audiences with which they are engaging. Practitioners may find it advisable to tailor their definition of local to match the group to which they are communicating. For example, practitioners may find a narrower view of local resonates best with clients residing in smaller

communities while a broader view of local is best suited for clients residing in larger metropolitan areas. Additionally, differences between how communities define local gives caution to the adoption of a nationally-recognized definition of local foods. Clearly, attempting to adopt a universal definition of local (as was done by Congress in 2008) would be fruitless given the differences among communities.

### **Purchasing Frequency**

A majority of the respondents regularly purchased local foods at the farmers' market with over 75% purchasing from the farmers' market at least twice per month. This frequency is similar to those frequencies found in other farmers' market research studies (Byker, et al., 2012; Darby, et al., 2006; Murphy, 2011).

A significant relationship was found to exist between respondents' distance from the farmers' market and their purchasing frequency. Though significant, the relationship between distance and purchasing frequency is inconsequential with distance only explaining 2% of variation in purchasing frequency.

Findings from this study clearly show consumers' visits to farmers' markets are more than random occurrences. The frequency of these visits offers excellent opportunities for producers selling at the markets to build rapport with their clients. This rapport can be critical in ensuring consumers' seek out the producer during subsequent farmers' market outings. Additionally, farmers' market managers may wish to build on the frequency of these visits positively reinforcing them through a loyalty rewards system. Such a rewards system could serve to reinforce and in some cases increase the frequency with which consumers are visiting the market.

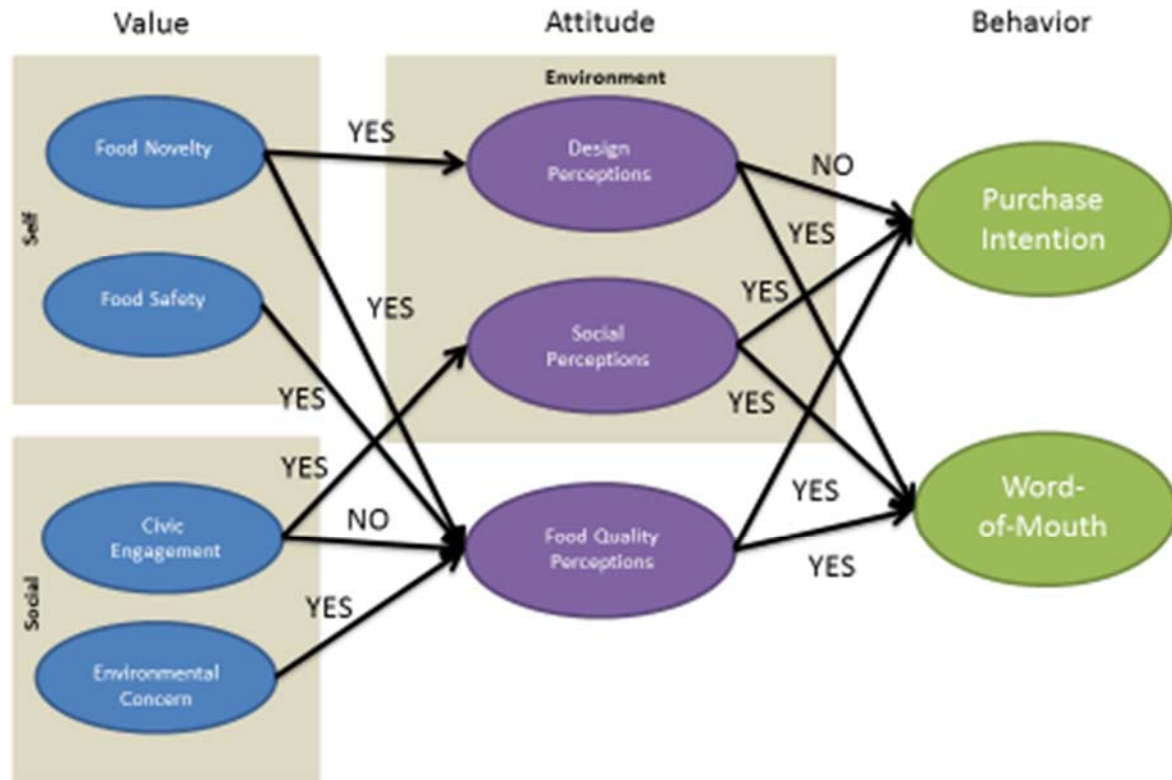
## RESEARCH MODEL

### Research Model Revisited

Value-Attitude-Behavior Theory as well as the Theory of Planned Behavior served as the theoretical foundations. The proposed relationships among consumers' values, their attitudes, and their outcome behaviors were informed by Value-Attitude-Behavior Theory, specifically the hierarchical relationships between values, attitudes, and behavior the theory espouses. Additionally, the hypothesized impacts of attitudinal variables (design perceptions, social perceptions, food quality perceptions) on outcome variables (purchase intention and word-of-mouth intentions) were grounded in the Theory of Planned Behavior.

Figure 3 depicts the tested relationships between value, attitudinal, and behavioral constructs. The relationships delineated by Value-Attitude-Behavior Theory and the Theory of Planned Behavior were supported by the research model. All consumer values (food novelty, food safety, civic engagement, and environmental concern) positively impacted at least one attitudinal construct. Additionally, all three attitudinal constructs positively impacted at least one of the outcome behaviors. The positive impact of values on attitudes and attitudes on behavior demonstrated through this study mirrors findings of other food-related studies using Value-Attitude-Behavior Theory (Grtunert & Juhl, 1995; Goldsmith, et al., 1997; Hansen, 2008).





**Figure 3: Model with Tested Relationships**  
*(Yes = Hypothesis Supported; No = Hypothesis Not Supported)*

### Impact of Values on Attitudes

For the consumer values included in the model, six hypotheses were developed. Of the six hypothesized relationships, five (H1, H2, H3, H4 and H6) were supported by the study data.

Consumers' value of food novelty was found to positively impact consumer's attitudes toward local foods quality perceptions (H1) and consumers' attitudes regarding design perceptions of the farmers' market (H2). It is worth noting the impact ( $\beta = .33$ ) of food novelty on farmers' market design perceptions was the largest impact of all the consumer values.

The positive impact consumers' value of food novelty has on consumers' attitudes regarding local foods quality perceptions should come as little surprise in light of the extant research. Work by Brunsø, et al. (2002) and Zepeda and Li (2006) speak to the high degree of importance consumers who enjoy cooking place on food quality. The works of Brunsø, et al. (2002) and Zepeda and Li (2006) validate food quality as an integral component of food preparation processes and of paramount importance to shoppers who enjoy food preparation and culinary experimentation.

The positive impact of consumers' values of food novelty on their attitudes toward the farmers' market design perceptions mirrors findings from the research of involved food shoppers (Brunsø, et al., 2002) and quality oriented food shoppers (Morschett, et al., 2007). In studies of these two shopper groups, both (involved food shopper and quality oriented food shoppers) were found to place increased importance on grocery store environments that were well-organized, stocked with quality products, and aesthetically pleasing.

The positive impact consumers' values of food safety has on their attitudes toward local foods quality perceptions (H3) typifies findings obtained across numerous local foods studies. A host of local foods research has found that while they are distinct, food quality and food safety are closely connected in the mind of the consumer with food safety informing consumers' food quality perceptions (Bloom, 2010; Grunert, 2005; Michaelidou & Hassan, 2008).

Consumers' values of civic engagement were found to positively impact consumers' attitudes regarding farmers' market social perceptions (H4). The magnitude of this impact, however, was weak ( $\beta = .09$ ). Despite the weak magnitude, the findings

reinforce research outside the farmers' market domain which points to social connections and communal social interactions as critical attributes of civic engagement (DeLind, 2001). Additionally, the values farmers' market consumers place on civic engagement parallels the importance consumers purchasing from other direct-farm marketing retailers (CSA's, farm-to-school purchasing) ascribe to civic engagement (Bagdonis, et al., 2009). Finally, results of the present study align with the work of Brehem and Eisenhauer (2008) who have demonstrated purchasing local foods to be a shared interaction through which relationships with other local foods consumers and vendors are fostered.

Consumers' values of civic engagement were found to impact consumers' attitudes toward local foods quality perceptions. However, this impact was not positive as originally hypothesized. (H5). The negative impact consumers' values of civic engagement has on local foods quality perceptions is puzzling. Unfortunately, existing research offers little help in solving this puzzle. Research by Gumirakiza, et al. (2014) demonstrates that farmers' market consumers' have different motivations for attending the markets. Some consumers attend farmers' markets out of a desire for what they perceive as quality products, while other consumers attend the markets simply for the social atmosphere. In light of the different motivations outlined by Gumirakiza, et al. (2014), one could surmise that perhaps consumers' who value civic engagement are motivated more by the social interactions the market affords and in turn less in tune with the quality of the products offered.

Additionally, distinctions between grocery shopper motivations (Yim, Yoo, Sauer, & Seo, 2013) offer support in explaining this finding. According to Westbrook & Black

(1985), consumers are driven by both hedonic and utilitarian motivations. And, in many shopping occasions – including occasions involving food shopping - one motivation dominates the other. In light of this understanding, it could be possible that farmers' market shoppers with high values of civic engagement are motivated more by hedonic desires for socialization and connections. Subsequently, they are less cognizant of utilitarian aspects of the markets such as product quality.

The impact of consumers' values of environmental concern on their attitudes toward local foods quality perceptions (H6) is expected. From the beginning of the local foods movement, researchers have pointed to an association between the environmental benefits of local foods and the quality of those food items (Hinsch, Slaughter, Craig, & Thompson, 1993). In addition, researchers have found a concern for the environment to be a top priority among local foods consumers (Weatherell, Tregear, & Allinson, 2003). In all, the finding from the present study adds additional support for the tightly woven connection between consumers' concern for the environment and their food quality perceptions (Darby, et al., 2008; Bloom, 2010).

### **Impact of Attitudes on Behavioral Outcomes**

For farmers' market consumers in this study, store design perceptions (pleasing displays, attractive facilities, organized merchandise, clear informational signs, high standards of cleanliness) did not have a significant impact on purchase intention (H7). When considered in light of retail environment literature such a finding appears atypical. According to Tulerly & Milliman (2000) the retail environment literature clearly shows store environmental factors to be important influencers of consumer behavior including purchasing behavior. Yet, emerging research regarding the farmers' market shopping

environment hints at differences in the importance of store environmental factors for consumers shopping in the farmers' market channel and consumers shopping through more traditional retail channels.

In his study of farmers' market consumers frequenting 12 New Zealand farmers markets, Murphy (2011) found retail environmental factors such as store organization, availability of parking, and attractiveness of facilities to be only modestly important to farmers' market consumers. In converse, price, location, store organization, availability of parking, and attractiveness of facilities were more important to supermarket consumers. For farmers' market consumers in the study, product-related attributes such as product quality and freshness were rated as most important.

An additional factor found to be important for farmers' market consumers involves the authenticity of the vendors selling at the farmers' market. According to Smithers and Joseph (2010), a concern for who is and who is not a "real farmer" is of greater importance to farmers' market consumers than environmental factors comprising the market. The importance of authenticity has been cited by other researchers (Coster, 2004; Murphy; 2011) as critical to the future viability of farmers' markets. Clearly, additional research is warranted regarding consumers' perceptions of vendor authenticity. The extent to which consumers use environmental cues such as signage, cleanliness, organization, and attractiveness of the facilities to determine authenticity offers possible avenues for future research.

Consumers' attitudes toward the design perceptions of the farmers' market did impact word-of-mouth intentions (H 8). This study marks the first time the impact of consumers' design perceptions on word-of-mouth communications has been

investigated in the farmers' market setting. Outside the farmers' market setting, store environment research points to consumers' perceptions of a store's interior as influential of consumer behavior (Turley & Milliman, 2000). Additionally, Baker, et al. (2002) found consumers' assessments of store design to have a positive, indirect influence on consumers' propensity to recommend the store to other consumers. Within the farmers' market setting, consumers' frequently indicate farmers' markets environments, including the festive atmospheres of the markets, to be a key reason driving their patronage of these venues (Bloom, 2010). The current findings reinforce consumers' positive perceptions of the farmers' market environment as influential to patronage behavior (Hunt, 2007) and overall attitude toward the market (Bloom, 2010).

Consumers' attitudes toward social perceptions of the farmers' market positively impacted their purchase intention (H 9) and word-of-mouth communications regarding the market (H 10). Results of this study extend the work of Baker, et al., (2002) beyond the formal retail setting to the in-formal farmers' market setting. The positive influence of a stores' social environment on consumer behavior, particularly purchase intention and propensity to tell others about experiences (Baker, et al., 2002) is found to be important even in the farmers' market setting. Additionally, the positive impact of consumers' social perceptions on purchase intention is in line with findings from Hunt (2007) who found consumers' positive perceptions regarding the social interactions at farmers' markets to have a significant impact on spending. Finally, this study offers the first empirical support for the positive impact of farmers' market social perceptions on word-of-mouth communications.

Consumers' local foods quality perceptions impacted their purchase intention

(H 11) and word-of-mouth communications (H 12). Of all attitudinal variables hypothesized to impact consumers' behaviors, food quality perceptions had the largest magnitude of impact positively influencing purchase intention ( $\beta = .64$ ) and word-of-mouth communications ( $\beta = .62$ ). The significance of food quality perceptions and the magnitude of its impact on consumers' behavior is not surprising. Studies have consistently found positive relationships to exist between perceptions of local foods quality and the purchase of local foods; this relationship has held constant regardless of the local food items under consideration (Byker, et al., 2012, Darby, et al., 2006, Jekanowski, et al., 2000, & Trivette, 2012). Additionally, the impact of consumers' perceptions of local foods quality on word-of-mouth communications aligns with previous studies which have demonstrated consumers' perceptions of product/ service quality to positively impact consumers' engagement in word-of-mouth activity (Cheung, et al., 2007; East, et al., 2008; Mazzarol, et al., 2007). This finding also gives support to the work of Dougherty and Green (2011) who in their study of local foods networks, found consumers' perceptions of local food products to be influential in the word-of-mouth messages consumers' communicated about farmers' market vendors.

### **APPLICATIONS FOR PRACTICE**

In addition to contributing to the body of research regarding local foods and farmers' markets, findings from the present study are of practical application to local foods producers, farmers' market managers, and Extension educators working with local foods systems. Outlined below are ways in which the current study's findings can inform the work of the aforementioned groups.

## **Ensuring Food Quality and Food Safety**

Of all the attitudinal constructs examined, food quality perceptions were found to have the greatest magnitude of impact on purchase intention and word-of-mouth communications. Therefore, it is imperative that local foods producers continually attend to offering products of the highest quality in terms of texture, appearance, aroma, and taste. This focus on quality is not confined to the farmers' market booth. Instead, this focus must infuse all aspects of the producers' agricultural operation. From planting to harvesting, storing, transporting, and vending, local foods producers must continually refine their operations adopting best practices that aid in ensuring the products offered are the pinnacle of quality.

Additionally the value consumers' place on food safety and the impact of this value on food quality should not be ignored. Local foods producers must make proactive efforts in monitoring and ensuring the safety of the food products they vend. Part of these proactive efforts could include the adoption of Good Agricultural Practices (GAP) standards. Implemented in 2002 by the United States Department of Agriculture, GAP focuses on best agricultural practices for producing, packing, handling and storing fruits and vegetables in the safest manner possible to minimize risks of microbial food safety hazards (USDA, 2013). In adopting GAP standards and obtaining GAP certification, producers would be given the skills and tools for evaluating food safety systematically as part of the overall farming operation. Additionally, producers could use their adoption of GAP standards and their subsequent obtainment of GAP certification as means of communicating to the consumer their commitment to offering a safe food product.



Consumers' attitudes regarding the quality of the local foods items sold at the market was found to have a positive impact on consumers' word-of-mouth communication regarding the farmers' market as a whole. In other words, the messages consumers express about a particular farmers' market hinge on the quality of the products offered by each vendor comprising that market. Thus, any deviations in food quality (even on the part of a few vendors) could potentially impact more than just the vendors selling the products with compromised quality. Instead, these deviations could lead to negative word-of-mouth communications regarding the entire market. In light of this finding, it is imperative farmers' market managers develop strategies with clear steps for ensuring products of the upmost quality are offered by the vendors. As part of this strategy, market managers may find it necessary and even advisable to appoint a group tasked with quality control. Monitoring the quality of the products being offered at the market and educating producers on the importance of product quality could be duties assigned to such a group.

### **Fostering Food Novelty**

Consumer's values of food novelty were found to positively impact consumers' attitudes toward local foods quality. The importance of food novelty for farmers' market consumers offers ample opportunities for farmers' market management to capitalize on this value. For example, farmers' market management may wish to have special market days featuring food demonstrations by local chefs or restaurant owners. These demonstrations could include distribution of recipes as well as handouts detailing new cooking techniques. In addition to the food demonstration, market managers may wish to highlight some "lesser known" food items offered by vendors. Highlighting these

novel food items could appeal to consumers' curiosity and their aspiration for trying new recipes and preparing unusual dishes. Finally, farmers' market management may elect to highlight diverse cultures and ethnicities through particular market events. Focusing on food traditions and recipes from other cultures and ethnicities should resonate well with consumers' values of food novelty.

### **Heightening Social Interactions**

In the present study consumers' attitudes regarding the social atmosphere of the farmers' market was found to impact their purchasing intention as well as their word-of-mouth communications regarding the market. It becomes important then for market management to evaluate the overall layout and organization of the market with a critical eye toward how the environment can be manipulated to increase social interactions among patrons and vendors and among patrons and fellow patrons. If the built environment does not have areas for seating, market managers may wish to create seating areas. These areas could easily be constructed throughout the market by using a pop-up tent and comfortable canvas folding chairs. Yet another way to heighten the social atmosphere of the market is for market management to invite special – preferably local – musicians to offer entertainment during the market hours. Live entertainment sets the tone for the market providing a fun, festival-like atmosphere.

### **Informing Extension Education**

The primary mission of Extension is the use of research-based education in instruction of agricultural producers, families, youth, and communities. Given this mission, one can easily determine Extension has a vital role within the local foods

movement. Findings from this study offer implications for augmenting and expanding this role.

First, Extension professionals in production and value-added agriculture should work with local foods producers assisting them as they continually adopt best practices for production of local foods. Given the importance of food safety and food quality and their impact on consumers' purchase intentions, Extension professionals should work with agricultural producers through the delivery of educational programs addressed at ensuring product quality and safety. These programs could include mentoring farmers' market vendors as they work through the process of adopting GAP standards, assisting vendors in the identification of potential food safety hazards in their systems of operation, and/or coaching vendors in effective means for training and managing on-farm labor.

Beyond the educational efforts discussed above, Extension professionals working with local foods producers must think outside the traditional production agriculture paradigm to include a consideration of marketing principles, design, branding, and merchandising. While once considered auspices of the grocery store or "someone else", knowledge and skills in these areas is of great importance for agricultural producers selling through direct-marketing channels such as farmers' markets. For producers selling through direct marketing channels, skills in creating attractive displays with well-merchandised, colorful, clearly priced products offer a competitive advantage over producers lacking such abilities (eXtension, 2007). Instruction in these areas, however, will require a paradigm shift among Extension professionals.

The findings from this study also holds implications for Extension's work with families and individuals. Given the diverse ways in which local was defined in the present study and general confusion regarding what local does and does not mean, Extension should be engaged with educating consumers - families and individuals - on exactly what this term entails. Part of this education should include a clear discussion of the mis-conceptions surrounding the term as well as a discussion of what the research has to say about local vs. organic vs. conventional foods.

Additionally, the lack of diversity amongst farmers' market consumers offers an excellent opportunity for Extension professionals to leverage their knowledge of and connections with limited-income and/or minority audiences. Using this leverage, Extension professionals could design educational programs aimed at encouraging increased farmers' market patronage among these groups. Part of this education could include Extension sponsored events such as farmers' market tours and food resource management education programs. Examples of such efforts are currently being undertaken by Extension professionals working with programs targeting increased farmers' market patronage among limited-resource women of child-bearing age (McGuirt, Ward, Elliott, Bullock, & Pitts, 2014).

## **LIMITATIONS**

As with any research effort, limitations are always present. For the current study, four limitations must be considered. These limitations, described below, should be kept in mind when reviewing and applying the survey results.

First, respondents did not use their own conceptualization of local foods when responding to the survey. In the introduction to the survey, a common definition of local

foods as those foods produced within 100 miles of the respondent's residence was provided by the researcher. Though providing a common definition of local foods for the participants does offer a common reference point from which participants can respond to the survey questions, it does raise some concerns. Chief among these concerns is the fact that for most of the participants in the present study, this definition of local foods (foods produced within 100 miles of their residence) simply did not resonate with them. Evidence of this discrepancy is clearly apparent when one examines the ways in which respondents usually define local foods. A little over half (50.9%) of the respondents indicated they use of a more strict definition of local – defining local foods as those produced within 10 or 50 miles of their residence. The exact influence of utilizing a common definition for local foods in this study is unknown. Could it be possible participants would have answered the survey questions differently if a different definition of local foods was offered, or if the consumers were free to use their own understanding of local foods would responses be different? Answers to these questions are simply not know.

A second limitation regards the means by which study data were collected. In this study, an on-line consumer panel from Qualtrics, a market research firm, was utilized. While on-line consumers panels have a well-established presence in the research literature, it is important to realize individuals who do not have convenient access to the internet as well as individuals who are not part of the marketing company's aggregate consumer database are precluded from participating in consumer panels. Additionally, minority members, those with poor English language skills, as well

as individuals of low socioeconomic status are likely to be under-represented in the make-up of consumer panels (Churchill & Iacobucci, 2002).

Yet another limitation stems from the fact the present sample of participants – although nationally represented - does not constitute a true random sample. At the onset, parameters regarding who could and could not participate were specified by the researcher. To be eligible, individuals must have frequented and purchased local foods at a farmers' market within the past year. The specified parameters changed the nature of the sample from a true random sample where every individual in the population has an equal likelihood of selection to a purposive sample (Churchill & Iacobucci, 2002). Given this, findings from the study cannot be generalized to all local foods shoppers or even all farmers' market shoppers.

Finally, the demographic summary of individuals responding to the survey clearly points to a lack of racial and economic diversity in the sample. While this demographic profile does match demographic profiles of the “typical” farmers' market consumer as identified in the research literature (Byker, et al., 2012), this lack of diversity is unsettling. Particularly unsettling is the limited extent to which the results of the study can be applied to other populations. Indeed caution must be used in extrapolating findings of this survey to other consumers specifically minority and limited-income consumers shopping in the farmers' market channel.

## **FUTURE RESEARCH**

### **Understanding Civic Agriculture**

The present study demonstrated the value consumers place on civic engagement has a significant influence on consumers' attitudes regarding the social

environment of the farmers' market and subsequently their purchasing intention at that market. Future research efforts should focus on developing a more tailored understanding of civic engagement, specifically the form it takes in the local foods system. Such an understanding has been introduced in the local foods literature by Lyson (2004) through the concept of civic agriculture.

To more fully understand Lyson's concept of civic agriculture and the unique interactions and connections that occur between producers and consumers in the selling of local food items, additional research will be necessary. This research offers opportunities for the use of both qualitative and quantitative methodologies. Through focus groups, interviews, and listening sessions, researchers can begin to develop better insight into the meaning of civic agriculture, the pathways for fostering civic agriculture, and the potential benefits civic agriculture holds for producers, consumers, and the larger food system. Quantitative research methodologies, in turn, can be utilized in developing measures that operationalize the concept of civic agriculture. These measures can later be tested and refined through survey research.

### **Exploring Other Channels**

The research model in the present study was tested with farmers' market consumers. Yet, the farmers' market is not the only channel in which consumers can purchase local foods. Instead, consumers have numerous options from which to select local food items. These options include purchasing local foods at grocery stores and supermarkets, purchasing local foods directly from producers at road side stands, on-farm stands, and U-pick operations, and purchasing local foods directly from producers in the form of CSA memberships (Bloom, 2010). While local foods purchasing has

increased across all channels (Duram, 2010), there is still much to be known about consumers who comprise these channels. To address this unknown, the current model should be replicated with consumers who source local foods in these other channels. Data from replications could provide a better understanding of push and pull factors leading consumers to purchase in the channels. Additionally, the data could be useful in allowing comparisons among local foods consumers across the channels.

### **Unpacking the Barriers Facing Minority and Limited-Resource Patrons**

Price, time, and transportation barriers present real obstacles for minority and low-income populations in the sourcing of local foods from farmers' markets. The unsettling realization is that many farmers' markets simply do not have the fiscal or organizational capacity to address these barriers (Guthman, Morris, & Allen, 2006). The subsequent result is a local foods system with inequitable participation. The demographic characteristics of this study reinforce the lack of diversity (racial, economic, educational) among farmers' market consumers. This general lack of diversity has led some researchers to label direct-to-consumer food enterprises such as farmers' markets as "elitist developments" (Trivette, 2012).

Research studies aimed at creating, implementing, and evaluating strategies to foster increased patronage of minority and limited-resource individuals at farmers' markets is warranted. A key focus of research should first center on developing a better understanding of producers', consumers', and most importantly limited-resource and minority individuals' perceptions related to barriers restricting consumers from patronizing farmers' markets. Working to establish these benchmarks is a critical step before resources are allocated toward efforts designed to "solve" this problem.



Undoubtedly, the constrained capital of farmers' markets coupled with their fragile organizational structures, necessitate that any new approaches or strategies geared to attracting minority and limited-resource consumers are well-researched with documented effectiveness.

## **CONCLUSION**

The growth of the American farmers' market and increased popularity of local foods demand increased attention from researchers. This study has sought to address this demand by applying the theoretical lenses of Value-Attitude-Behavior Theory to better understand consumers who source locally-produced foods at the farmers' market. Using data from a consumer panel of 485 respondents, the impact of four values (food novelty, food safety, civic engagement, and environmental concern) on consumers' attitudes regarding farmers' market design perceptions, farmers' market social perceptions, and local foods quality perceptions was examined. In turn, the impact of these attitudes on purchase intention and word-of-mouth communications was explored.

Farmers' Markets and local foods are at a tipping point in the consumer economy. What does the future hold for the American farmers' market and local foods? Is the current popularity of the farmers' market simply a consumer fad soon to be replaced by emerging trends in other retailing channels? Will the local foods movement soon fade into the food landscape along with other such movements? The answers to these questions and the future of farmers' markets and local foods hinge on the ability of local foods practitioners and researchers to continue the work of developing insights into the local foods economy and the direct marketing channels (such as farmers' markets) which support this economy. With these insights, best practices for supporting

the often fragile institutional structure of farmers' markets can be implemented, policy supportive of locally-produced foods and direct marketing can be informed, producers educated, and consumer empowered with choice in the foods they purchase.

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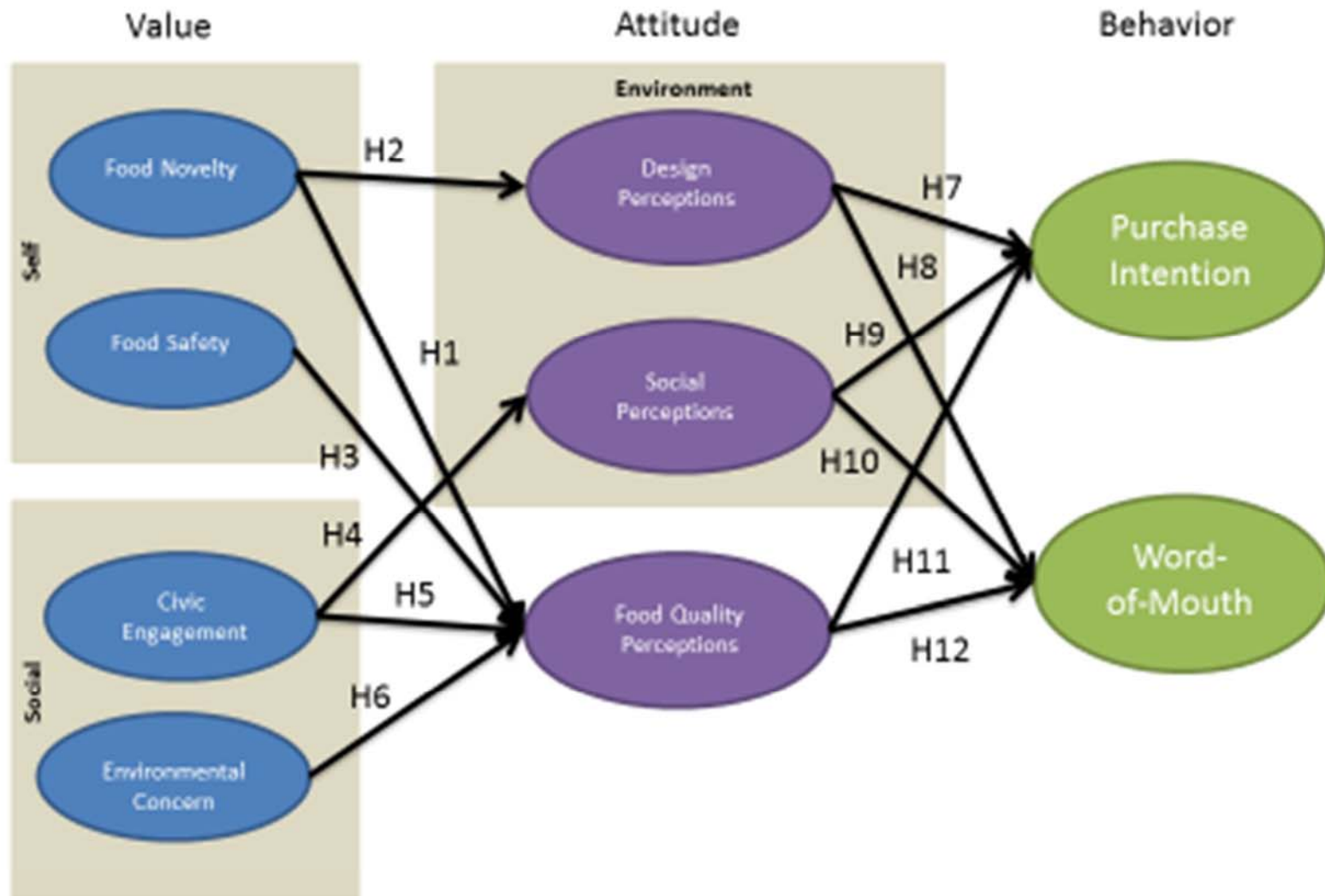
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## APPENDIX

## Appendix A: Research Model



## Appendix B: Proposed Scales with Alpha Values

### Food Novelty

*Brunso, Scholderer, & Grunert, 2004*

Original Items (1 = Completely disagree; 7 = Completely agree)	Modified Items (1 = Strongly Disagree; 7 = Strongly Agree)
I like to try out new recipes. I look for ways to prepare unusual meals. Recipes and articles on food from other culinary traditions make me experiment in the kitchen.	I like to try out new recipes. I look for ways to prepare unusual meals. Recipes on food from other cultures/ regions make me experiment in the kitchen.
<b>Alpha .84</b>	

### Food Safety

*Kamenidou, Priporas, Michailidis, & Mamalis, 2003*

Original Items (1 = Dissatisfaction; 7 = Satisfaction)	Modified Items (1 = Strongly Disagree; 7 = Strongly Agree)
Free of hormones Free of insecticides Free of pesticides Quality certification	I am concerned about the amount of hormones in food. I am concerned about the amount of insecticides in food. I am concerned about the amount of pesticides in food. <del>Quality certification</del>
<b>Alpha .89</b>	I am concerned about the amount of bacteria in food. I am concerned about the amount of artificial additives in food. I am concerned about the amount of artificial preservatives in food.
<i>Michaelidou &amp; Hassan, 2008</i>	
Original Items (1 = Strongly Disagree; 7 = Strongly Agree)	The safety of meat nowadays concerns me. The safety of produce nowadays concerns me.
Nowadays most foods contain residues from chemical sprays and fertilizers. I am very concerned about the amount of artificial additives and preservatives in food. The quality and safety of meat nowadays concerns me.	The safety of our food is important to me. I think about food safety a lot.
<b>Alpha .70</b>	

**Civic Engagement***Shah, 1998*

Original Items (1 = none in the past year; 7 = weekly)	Modified Items (1 = Strongly Disagree; 7 = Strongly Agree)
How often do you consider yourself influential in your neighborhood? How often have you gone to a club meeting?  How often have you attended church? How often have you done volunteer work? How often have you worked on a community project?	It is important that I am influential in my neighborhood. It is important that I go to club meetings (e.g. - Ruritan Club, Lions Club, Kiwanis). <del>How often have you attended church?</del> It is important that I do volunteer work. It is important that I work on a community project. It is important that I attended public interest meetings.
<b>Alpha .66</b>	

**Environmental Concern***Bang, Ellinger, Hadjimarcou, & Traichal, 2000*

Original Items (1 = Unconcerned; 7 = Concerned)	Modified Items (1 = Strongly Disagree; 7 = Strongly Agree)
How concerned are you about the environment (air, water, and land use)? How concerned are you about pollution? How concerned are you about water and air pollution in your city? How concerned are you about water usage in your city? How concerned are you about the environment when making purchases? The electric company should use less expensive energy even if the cheap energy may increase environmental pollution. (reverse-coded)	I am concerned about the environment (air, water, and land use). I am concerned about pollution. I am concerned about water and air pollution in my community. I am concerned about water usage in my community. I am concerned about the environment when making purchases. <del>The electric company should use less expensive energy even if the cheap energy may increase environmental pollution. (reverse-coded)</del> I am concerned about the loss of farm-land in my community.
<b>Alpha .87</b>	

**Environment***Baker, Parasuraman, Grewal, & Voss, 2002*

Original Items (1 = Strongly Disagree; 7 = Strongly Agree)	
<b>Design Perceptions</b> Pleasing color scheme Attractive facilities Organized merchandise	Pleasing displays Attractive facilities Organized merchandise Clear informational signs High standards of cleanliness
<b>Alpha .76</b>	
<b>Social Perceptions</b> Well-dressed employees Friendly employees Helpful employees	Appropriately-dressed employees Friendly employees Helpful employees Opportunities to discuss products with fellow shoppers Shoppers open to conversations Overall socially pleasant store environment
<b>Alpha .89</b>	

**Food Quality Perceptions***Kamenidou, Priporas, Michailidis, & Mamalis, 2003*

Original Items (1 = Dissatisfaction; 7 = Satisfaction)	Modifications (1 = Strongly Disagree; 7 = Strongly Agree)
Freshness Texture Appearance Taste Color Aroma Nutritional Value Price	“Just picked” freshness Good texture Good appearance Good taste Good color Pleasing aroma High nutritional value <del>Price</del>
<b>Alpha .8508</b>	



**Purchase Behavior**

Please estimate how often you purchase local foods? *Every week, Three times a week, Twice a week, Once a month, Less than once a month*

Please estimate how much you spent on local food items during your last shopping trip at this location:

Please estimate the total amount you spent (including local foods and other items) on your last shopping trip at this location:

**Purchase Intention**

*Vermeir & Verbeke, 2008*

	Modified Items <i>(1 = Strongly Disagree; 7 = Strongly Agree)</i>
There is very little (good) chance that I will buy locally produced foods in the future. It is highly unlikely (likely) that I will buy locally produced foods in the future. I am highly uncertain (certain) that I will buy locally produced foods in the future.	There is a very good chance that I will buy local foods at this farmers' market in the future. It is highly likely that I will buy local foods at this farmers' market in the future. I am highly certain that I will buy local foods at this farmers' market in the future.
<b>Alpha .92</b>	

**Word-of-Mouth**

*Babin, Lee, Kim, and Griffin, 2005*

Original Items <i>(1 = Not at all likely; 7 = Extremely likely)</i>	Modified Items <i>(1 = Strongly disagree; 7 = Strongly agree)</i>
I will say positive things about this restaurant to other people.  I will recommend it to someone who seeks my advice.  I will encourage friends and relatives to visit the restaurant.	I will say positive things about local foods at this farmers' market to other people. I will recommend local foods at this farmers' market to someone seeking my advice. I will encourage friends and relatives to go to this farmers' market for local foods.
<b>Alpha .90</b>	

**Please select the option that BEST FITS your definition of the term “locally produced.”** *Campbell, 2011*

- Within 10 miles of my residence
- Within 50 miles of my residence
- Within 100 miles of my residence
- Within my county
- Within my state
- Within my region

**I expect locally produced foods to have these characteristics: (Check all that apply.)** *Campbell, 2011*

- Be produced by my neighbors
- Be produced in a socially responsible manner
- Come from community-supported agriculture organizations
- Be environmentally safe
- Be organically grown
- Be subsidized by local government
- Be produced and distributed in a sustainable way

## Appendix C: On-line Survey Instrument

### Local Foods

Dear Participant, Thank you for your participation in this survey. The survey will take approximately 10 minutes to complete. Your participation in this study is voluntary; you may decline to participate without penalty. If you wish to withdraw from the survey before data collection is completed, your data will be destroyed. All responses will be held in confidence by the researcher, Christopher Sneed. If you have questions about your rights as a survey participant, please contact the Office of Research Compliance at 865-974-3466. If you have questions at any time about the study or the survey procedures, you may contact the researcher, Christopher Sneed, at 219 Court Street, University of Tennessee, Maryville, TN 37804 or at 865-982-6430.

Do you agree to participate? (Selecting "YES" constitutes your consent.)

- Yes (1)
- No (2)

*If Yes Is Not Selected, Then Skip To End of Survey*

During the past 12 months have you purchased any local food items? (Local foods are defined as those food items produced within 100 miles of your residence.)

- Yes (1)
- No (2)

*If Yes Is Not Selected, Then Skip To End of Survey*

In the previous 12 months, have you made local food purchases at a farmers' market?

- Yes (1)
- No (2)
- Uncertain/ Not Sure (6)

*If Farmers' Market Is Not Selected, Then Skip To End of Survey*

















Approximately how far is THIS farmers' market from your house?

- less than 2 miles
- 2 - 3.9 miles
- 4 - 5.9 miles
- 6 - 7.9 miles
- 8 or more miles

Please estimate how often you purchase local foods at THIS farmers' market.

- Every week
- Three times a month
- Twice a month
- Once a month
- Less than once a month
- Rarely

Please estimate how much you spent on local food items during your last shopping trip at THIS farmers' market:

Please estimate the total amount you spent (including foods and other items) on your last shopping trip at THIS farmers' market:





You are almost finished with this survey! There are only a few more questions.

Although this study defined local foods as those produced within 100 miles of your residence, please select the option that best fits YOUR definition of the term local food.

- Within 10 miles of my residence
- Within 50 miles of my residence
- Within 100 miles of my residence
- Within my county
- Within my state
- Within my region

I expect local foods to have these characteristics: (Check all that apply.)

- Be produced by my neighbors
- Be produced in a socially responsible manner
- Come from community-supported agriculture organizations
- Be environmentally safe
- Be organically grown
- Be subsidized by local government
- Be produced and distributed in a sustainable way

What is your gender?

- Male
- Female

What is your ethnicity?

- African American
- American Indian
- Asian
- Hispanic (includes Latino or Spanish)
- White (Caucasian)
- Other \_\_\_\_\_

What is your age?

What is your approximate household income?

- Under \$25,000
- \$25,000 - \$49,999
- \$50,000 – 74,999
- \$75,000 - \$99,999
- \$100,000 - \$124,999
- \$125,000 - \$149,999
- \$150,000 or more

What is your highest level of education completed?

- Less than high school degree
- High school (diploma or GED)
- Some college or associates degree
- Bachelor's degree
- Graduate or professional degree
- Other \_\_\_\_\_

How many persons are in your current household (including yourself)?

\_\_\_\_\_ people in household

What best describes the area in which you reside?

- Small city or town with a population less than 2,500 people
- Urban cluster with a population between 2,500 – 49,999 people
- Urbanized area with a population between 50,000 – 99,999 people
- Metropolitan statistical area with a population between 100,000 – 249,999
- Metropolitan statistical area with a population over 250,000 people

What is your zip code?

Additional Comments (optional):

## VITA

Christopher Thomas Sneed, son of Thomas Steven and Diana Kay Sneed, was born February 5, 1979 in Athens, TN. He and his younger sister Melissa Sneed were raised by his mom, dad, Grandmother Mildred Sneed, and Great-Grandmother Ollie Mattson in Decatur, TN on what remained of the family farm. From an early age, Chris (as he is commonly known) has found memories of helping in the yard, working on craft projects with his grandmother, fixing things with his dad, and decorating for various seasons – especially Christmas. Each Spring, Chris would help his dad and grandmothers plant the family garden. The large garden always included a variety of crops especially tomatoes, corn, white half-runner green beans, cucumbers, squash, and okra. Later Chris would be given his own section of the garden that was solely his responsibility for planting and caring. From his grandmothers, he learned the basics of preserving the foods they grew. Memories of jelly making, bean breaking, apple drying, and corn shucking are vivid reminders of the childhood he knew.

Chris attended Decatur Elementary School and Meigs County High School. (These were the same schools attended by both his father and grandmother.) In 1997 Chris graduated Salutatorian from Meigs County High School. After high school, Chris attended The University of Tennessee at Knoxville. (Moving to the “big city” and attending a “liberal” university was not well accepted by some in his family and church family. Later, Chris would reflect on his decision to “ignore them” and leave Decatur for Knoxville as one of the best decisions in his adult life.)

At The University of Tennessee, Chris majored in Child and Family Studies with a focus on Family and Consumer Sciences Education. In 2001, Chris graduated



Summa Cum Laude from UT. He was the first person in his immediate and extended family to graduate from college. At graduation, he was recognized as the top academic graduate in his college – The College of Human Ecology. Chris went on to pursue a Master’s Degree in Human Resource Development with a focus on Family and Consumer Sciences Education. As part of his Master’s Degree, Chris was a teaching intern at Heritage High School where he was responsible for teaching Foods and Nutrition, Consumer Economics, and Family and Parenting Education. After one year of teaching, Chris realized the high school classroom was not the place for him.

After, completing his Master’s Degree at The University of Tennessee, Chris worked for the UT Network, a contract-agency of the Department of Human Services. In this capacity, Chris taught financial management class to individuals receiving state assistance benefits. In 2004, Chris left the UT Network to join The University of Tennessee Extension as an Extension Agent in McMinn County. Later in 2006, Chris would transfer from McMinn County to assume the same position in Blount County.

In his time with Extension, Chris has received 21 National and State Awards including the Dutch and Marilee Cavender Award for Best Publication and The University of Tennessee Institute of Agriculture’s Vernon and Ida Darter Service Award. Chris has co-authored 7 peer-reviewed journal articles, 7 refereed conference proceedings, and has presented over 15 peer-reviewed presentations. Since 2004, Chris has secured over \$75,000 in external and internal grants, contracts, and fee-based programming dollars. As part of his work with Family Financial Management, Chris makes monthly news appearances on Knoxville’s NBC affiliate – WBIR. His

monthly news segments, covering financial management topics from Holiday Spending to Credit Scores, reach over 25,000 households.

Chris makes his home with his “son” Tabby Jo Kitty in South Knoxville overlooking the Tennessee River. In his free time, Chris enjoys working on his 102 year old home, gardening, shopping for (and occasionally selling) antiques, and spending time with his significant other – Will. Chris is a member of Church Street United Methodist Church where he sings in the Parish Adult Choir. Additionally, Chris enjoys taking an active role in local politics and charitable fundraisers including the Annual Red and Green Evening.