

2012

# Perceptions of the Benefits and Challenges of Purchasing Local Foods in the Iowa Hotel Industry

Sangwook Kang  
*Iowa State University*

Follow this and additional works at: <https://lib.dr.iastate.edu/etd>

 Part of the [Food Science Commons](#)

## Recommended Citation

Kang, Sangwook, "Perceptions of the Benefits and Challenges of Purchasing Local Foods in the Iowa Hotel Industry" (2012).  
*Graduate Theses and Dissertations*. 12729.  
<https://lib.dr.iastate.edu/etd/12729>

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

**Perceptions of the Benefits and Challenges of Purchasing Local Foods  
in the Iowa Hotel Industry**

by

**Sangwook Kang**

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
**MASTER OF SCIENCE**

Major: Hospitality Management

Program of Study Committee:  
Lakshman Rajagopal, Major Professor  
Catherine Strohhenn  
Stephen Sapp

Iowa State University

Ames, Iowa

2012

Copyright © Sangwook Kang, 2012. All rights reserved.

## TABLE OF CONTENTS

<b>LIST OF TABLES.....</b>	<b>iv</b>
<b>LIST OF FIGURES.....</b>	<b>v</b>
<b>ABSTRACT.....</b>	<b>vi</b>
<b>CHAPTER 1. INTRODUCTION.....</b>	<b>1</b>
Purpose of Study.....	2
Research Questions.....	3
Key Terms.....	4
<b>CHAPTER 2. REVIEW OF LITERATURE.....</b>	<b>5</b>
Local Foods.....	5
<i>Local Foods Movement in the United States.....</i>	5
<i>Local Foods Movement in Iowa.....</i>	6
Benefits and Obstacles to Purchasing Local Foods.....	7
<i>Benefits.....</i>	7
<i>Obstacles.....</i>	9
The Hotel Industry.....	11
<i>Food &amp; Beverage Revenue in the Hotel Industry.....</i>	11
The Theory of Planned Behavior.....	13
<i>The Theory of Planned Behavior (TpB).....</i>	13
<i>Applying TpB to Local Foods Research.....</i>	14
<b>CHAPTER 3. METHODS.....</b>	<b>16</b>
Purpose of Study.....	16
Use of Human Subjects.....	16
Research Design.....	16
Research Questions.....	17
<i>Phase 1- Qualitative Phase.....</i>	18
Sample.....	18
Interview Questionnaire.....	18
Data Collection.....	18
Data Analysis.....	19
<i>Phase 2-Quantitative Phase.....</i>	19
Sample.....	19
Survey Instrument.....	20
Data Collection.....	21
Data Analysis.....	21
<b>CHAPTER 4. PERCEPTIONS OF BENEFITS AND CHALLENGES OF PURCHASING LOCAL FOODS IN IOWA HOTELS.....</b>	<b>22</b>
<b>ABSTRACT.....</b>	<b>22</b>
<b>INTRODUCTION.....</b>	<b>22</b>
<b>LITERATURE REVIEW.....</b>	<b>23</b>
Local Foods.....	23

<i>Local Food Movement</i> .....	24
<i>Benefits of Purchasing Local Foods</i> .....	25
<i>Obstacles of Purchasing Local Foods</i> .....	25
The Hotel Industry in the United States.....	26
<i>Food and Beverage Revenue in the Hotel Industry</i> .....	27
The Theory of Planned Behavior (TpB).....	27
<b>METHODS</b> .....	<b>28</b>
Research Design.....	28
Phase 1: Interviews.....	29
Phase 2: Paper-based Questionnaire.....	30
<b>RESULTS</b> .....	<b>31</b>
Phase 1: Interviews.....	31
<i>Perceived Benefits of Purchasing Local Foods</i> .....	32
<i>Perceived Obstacles of Purchasing Local Foods</i> .....	34
Phase 2: Paper-based Questionnaire.....	35
<i>Data Collection</i> .....	35
<i>Demographic Characteristics</i> .....	36
<i>TpB and Local food Purchasing Intention</i> .....	36
Attitudes (Attitudes).....	36
Subjective Norms (SN).....	37
Perceived Behavioral Controls (PBC).....	37
Behavioral Intentions (BI).....	38
Correlations between Attitudes, SN, PBC, and BI.....	38
t-test for Types of Hotels and TpB variables (Attitudes, SN, PBC, and BI).....	39
<b>DISCUSSIONS</b> .....	<b>39</b>
Limitations.....	44
<b>CONCLUSIONS</b> .....	<b>45</b>
<b>REFERENCES</b> .....	<b>46</b>
<b>CHAPTER 5. GENERAL CONCLUSIONS</b> .....	<b>54</b>
Summary of Results.....	54
Conclusions.....	55
Limitations.....	56
Future Research.....	56
<b>REFERENCES</b> .....	<b>57</b>
<b>Appendix A. Human Subjects Approval</b> .....	<b>64</b>
<b>Appendix B. Interview Questions- Phase 1</b> .....	<b>65</b>
<b>Appendix C. Telephone Script- Phase 1</b> .....	<b>68</b>
<b>Appendix D. Informed Consent Document – Phase 1</b> .....	<b>69</b>
<b>Appendix E. Survey Questionnaire - Phase 2</b> .....	<b>71</b>
<b>Appendix F. Reminder Postcard</b> .....	<b>75</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>76</b>

**LIST OF TABLES**

Table 3. Hotel Establishments Included in Phase 2.....	20
Table 4.1. Demographic Characteristics of Respondents (n=40).....	50
Table 4.2. Attitudes toward Purchasing Behavior of Local Foods (n=40).....	51
Table 4.3. Correlations between Attitudes, SN, PBC, and BI (n=40).....	52
Table 4.4. t-test of Types of Hotels and Attitude, SN, and PBC (n=40).....	52

**LIST OF FIGURES**

Figure 1. Themes and Categories from Phase 1.....	53
Figure 2. The correlations between Attitudes, Subjective Norms, Perceived Behavior Control with Behavioral Intention.....	53

**ABSTRACT**

The purpose of this study was to explore hotel industry decision makers' perceptions of benefits and challenges of purchasing locally produced foods in a Midwestern state. The Theory of Planned Behavior provided the theoretical framework for this study. Interviews were conducted with two full service and two limited service hotels in Iowa. Mailed questionnaires were sent to 209 full service and limited service hotels in five Iowa counties which had active local food initiatives. Results showed that Perceived Behavior Control influenced decision makers' Behavioral Intention to purchase local foods. Purchasing local foods was perceived as beneficial to the business, but decision makers experienced challenges such as, lack of information, budget constraints, inconsistent quality, and lack of established refund policies when purchasing local foods. This study provides insights into the needs of the hotel industry and addressing those needs may open new markets for local food producers.

## CHAPTER 1. INTRODUCTION

Local foods have been defined differently by various researchers; so, there is no standard definition of local foods. Local food in this study is defined as locally-grown (within 200 miles) or produced agricultural food products purchased directly from producers through various outlets. These include farmers' markets, Community Supported Agricultures (CSAs), "pick-your-own" farms, internet marketing, and niche markets. The local food movement has been considered a component of sustainable agriculture since the 1970s, when the possibilities of organic and local foods were demonstrated through the concept of sustainable agriculture (Liebman, Krischenmann, Pirog, & DeWitt, 2008). The 2008 Farm Bill granted subsidies to schools and other institutions to exert a geographic preference for the purchase of unprocessed agricultural products (Farm Bill, 2008). Partly through the USDA campaign known as "Know Your Farmer, Know Your Food" (United States Department of Agriculture [USDA], 2011<sup>a</sup>), CSA farms grew to over 4,000 operations as of 2011.

Customer desire to support private local farmers and food producers continues to increase in the foodservice industry. Strohbahn and Gregoire (2002) found that foodservice managers in a number of different sectors (institutions and restaurants) perceived the benefits of local foods to be reduced transportation miles and energy consumption, support of the local economy, and fresher foods. Strohbahn and Gregoire (2003) pointed out that quantitative consumption of local foods by local hotels, restaurants, and institutions has the potential to increase the number of locally-produced fruits and vegetables within the state. In the foodservice industry, chefs desired to pay more for local food items because of their passion for the plate and provide quality food to their customers (Loureiro & Umberger,



2005). Ortiz (2010) found customers actually did pay more for menu items prepared from promoted locally produced food ingredients owing to the perceptions of higher nutrition and freshness than food purchased from conventional sources. This finding of perceptions of why consumers purchase local foods was similar to a survey of consumers in Missouri households (Brown, 2003). Consumers believe that local foods are produced using environmentally sustainable practices and that supporting local producers' benefits the economy (Schneider & Francis, 2005).

### Purpose of Study

Research related to local food use has been conducted in the restaurant industry, catering industry, K-12 schools, and higher education institutions. However, there is no known study that has investigated local food use in the hotel industry, which is a major revenue generating industry in the United States. The purpose of this study was to examine Iowa hotel industry decision makers' perceptions of the benefits and challenges of purchasing locally produced food in five counties where the local foods movement has a strong presence: (1) Dallas, (2) Polk, (3) Black Hawk, (4) Dubuque, and (5) Pottawattamie. This study provides insights to local food producers about the needs of this industry and ways in which local producers can reach out to better serve this sector of the hospitality industry.

### Research Questions

This study was designed to answers to the following research questions:

- What are the purchasing behaviors of Iowa hotel decision makers in the five Iowa counties?
- What are the perceived challenges and benefits of purchasing local foods among Iowa hotel decision makers in the five Iowa counties?
- What factors are considered critical for purchasing local foods by Iowa hotel decision makers in the five Iowa counties?
- How do attitudes, subjective norms, and perceived behavioral controls influence intentions of purchasing local food among decision makers in the hotel industry in five Iowa counties?

## Key Terms

Key terms used in this study are defined below.

*Buyer:* Individual in a hotel foodservice operation that handles the ordering and purchasing of necessary ingredients and supplies

*Conventional vendors:* Suppliers who obtain and sell products regionally (multi-state) or nationally and exhibit one or more of the following characteristics: defined infrastructure, sales representatives, multiple delivery vehicles, and regional or national distribution (e.g., Sysco, US Foodservice, Loffredo Fresh Produce Co.).

*Community Supported Agriculture (CSA):* Locally-based socio-economic model of agriculture and food distribution wherein a food producer, such as a farm, sells subscriptions directly to consumers and provides its products directly to them.

*Decision maker:* The person responsible for business decisions at an establishment.

*Full service hotel:* A hotel which offers overnight accommodations, meeting spaces, and foodservice establishments.

*Limited service hotel:* A hotel, which offers basic, room accommodations and guest amenities with minimal public areas.

*Local food:* Agricultural food products grown or produced within 200 miles of the user and purchased directly from farmers through various outlets, including farmers' markets, CSAs, "pick-your-own" farms, Internet marketing, and niche markets.

*Local vendors:* Farmers markets, local growers, CSAs, co-ops, or vendors sourced for local foods and supplies.

## CHAPTER 2. REVIEW OF LITERATURE

This chapter is organized into four sections: (1) local foods; (2) perceived benefits and obstacles to purchasing local foods; (3) hotel industry in the United States; and (4) Theory of Planned Behavior.

### Local Foods

#### *Local Foods Movement in the United States*

A previous study defined “civic agriculture” as educating customers to consume locally produced food items from local farms that follow sustainable farming practices, teach students about local foods, assist CSAs that serve low income communities, and connect to local food policy councils (Lyson, 1999). The SARE (Sustainable Agriculture Research and Education program) defined a community food system as: “a collaborative effort to build more locally based, self-reliant food economies—one in which sustainable food production, processing, distribution and consumption are integrated to enhance the economic, environmental and social health of a particular place” (Feenstra, 2002, p.100).

Marketing of local foods to consumers was estimated to have generated \$1.2 billion in revenue, which reflected 0.8% of total agricultural sales of edible products in 2007 (United States Department of Agriculture Economic Research Service, 2008). An increase in consumer interest in local foods has reflected in the growth in the number of farmers’ markets and CSAs in the United States. According to the report "Know Your Farmer, Know Your Food", a USDA-wide effort to meet President Obama’s commitment to stimulate local and regional food systems, the number of farmers’ markets in the United States increased from 1,755 in 1994 to more than 7,175 in 2011 (USDA, 2011<sup>a</sup>). In 1986, there were only

two known CSA operations and that number has now grown to over 4,000 operations as of 2011 (USDA, 2011<sup>a</sup>). Farm-to-school programs have also increased from 2 in 1996 to more than 2,200 across the 48 states in 2011 (USDA, 2011<sup>a</sup>). Both farmers' markets and direct-to-customer marketing work to develop market accessibility of small- and medium-sized farms to compete with the mass supermarket systems and large wholesale market channels. This approach encompasses CSAs, “pick-your-own” farms, internet marketing, niche markets, and farmers' markets (USDA, 2009).

#### *Local Food Movement in Iowa*

The farm debt crisis that resulted partly from the globalization of agriculture in the 1980s led to the interdependence between rural communities and family farms in Iowa deteriorated (Wells, Gradwell, & Yoder, 1999). Interestingly, during this time while agriculture was plagued by economic concerns, Iowa was becoming known as an urban state and a net importer of food, which reduced its agricultural output and sustainable agricultural systems, especially the food processing capacity of local and small-scale farms (Wells et al., 1999). The influence of these agricultural and economic shifts, resulted in impacts of rural communities and local, small-scale farms: 1) the dependence of rural communities rested in large part on a healthy local agriculture, and 2) the dependence of healthy local and small-scale farms on rural communities such as schools, hospitals and municipal services (Wells et al., 1999). CSA's supported relationships between agriculture and non-agricultural rural residents, and between rural and urban residents (Wells et al., 1999). Small-scale farms in Iowa supported by CSA subscribers produce vegetables, fruits, meat, and eggs (Wells et al., 1999). According to a report released by the Leopold Center for Sustainable Agriculture

(Pirog & McCann, 2009), the number of farmers' markets in Iowa increased dramatically from 65 in 1986 to 223 in 2009. In addition, the Department of Agriculture in Iowa has supported the growth of farmers' markets in Iowa and coordinates the Farmers Market Nutrition Program in Iowa which allows use of food stamps at Farmers Markets (Iowa Department of Agriculture [IDA], 2012).

Farmers in Iowa have opportunities to obtain the necessary know-how and financial aid through the Division of Soil Conservation to preserve their lands as highly productive soil, to prevent deterioration, and to support waterway safety (IDA, 2012). In a preliminary report by the Local Food & Farm Program (2012), 14% of produce consumed was grown within Iowa, out of \$8 billion annual all food expenditures (Local Food & Farm Program [LF&FP], 2012). The report pointed out local food commerce needed to improve its direct-to-consumer sales, infrastructure, and incentives to support local food production and marketing activity (LF&FP, 2012). With food safety being a major concern for producers and consumers, the Iowa Local Food and Farm Plan also offered recommendations to address barriers associated with providing food safety assurances (LF&FP, 2012).

### Benefits and Obstacles to Purchasing Local Foods

#### *Benefits*

According to Pirog and Benjamin (2003), food miles are defined as the food's traveling distance from where it is produced to where it is purchased or consumed. Locally-produced foods require far less food miles than conventional foods as calculated by Weighted Average Source Distances (WASD) methods (Pirog & Benjamin, 2003). Using the WASD method, conventional source broccoli traveled 1,846 miles, while locally grown

broccoli traveled 20 miles (Pirog & Benjamin, 2003). Iowans spend only 14% of the \$8 billion on food purchases on food produced within the state; there is room to grow Iowa's local economy. Furthermore, with the "Healthy, Hunger-Free Kids' Act" signed by President Obama, local farmers have opportunities to supply their products to interested schools (USDA, 2011<sup>b</sup>).

A study by Strohbehn and Gregoire (2002) showed a mean rating of 3.8 or higher (on a 5-point Likert-type scale) in terms of perceived benefits of locally-produced food such as fresher food, support of local economies, improved public relations, and high quality food. Purchase of local foods by hotels, restaurants, and institutions has the potential to increase the number of fruits and vegetables producers within the state due to perceived benefits of local foods (Starr et al., 2003; Strohbehn & Gregoire, 2003). The sustainability benefits of local foods as perceived by customers were environmental, economic, socio-cultural, and a form of ethnocentrism (Paloviita, 2010).

Even though the price of locally-produced foods may be higher than those of conventional foods, chefs have indicated less willingness to pay more because of perceived higher quality (Gao & Bergefurd, 1998; Loureiro & Umberger, 2005; Montri, Kelly, & Sanchez, 2006; Starr et al., 2003). In a study by Curtis and Cowee (2009), 148 executive chefs at gourmet and fine dining restaurants rated quality, taste and freshness of local foods purchased as 4.99 on a 5-point Likert scale (5=extremely important). Another study found chefs' preferences for using local foods were due to perception that local ingredients provided higher quality and freshness (Murphy & Smith, 2009). From a study of chefs in Ohio restaurants (casual to high-end gourmet), convenience and price were identified as important factors that would influence local food purchasing decisions. These chefs indicated

willingness to pay more for local foods if they met these top two needs (Inwood, Sharp, Moore, & Stinner, 2009). Customers have paid more in restaurants because local foods were perceived as being more nutritious and fresh (Ortiz, 2010; Sharma, Strohbehn, & Gregoire, 2009). Catering operation decision makers indicated a willingness to purchase locally produced foods as they perceived them to be safer, fresher, and supported local economy (Casselmann, 2010). Commercial and institutional foodservice operations in a case study in Iowa indicated a preference for purchasing more locally-produced items because local foods provide better quality and an opportunity to support local farms (Strohbehn & Gregoire, 2003).

### *Obstacles*

In a survey of different types of foodservice operations conducted by Strohbehn and Gregoire (2002), institutional and commercial foodservice operators rated 12 perceived obstacles of purchasing local foods in Iowa on a 5-point Likert-type (5=strongly agree) scale in the following order: “1) year-round availability (3.9); 2) working with multiple vendors (3.2); 3) obtaining adequate supply (3.2); 4) consistent package size (3.1); 5) local and state regulations (3.1); 6) reliable food quantity (3.0); 7) order methods (2.9); 8) safety issues (2.9); 9) on-time delivery (2.9); 10) labor time to prepare food (2.6); 11) product cost (2.6); and 12) payment procedures (2.6).” A survey of chefs identified the following obstacles: unawareness of local food options, lack of information, lack of authority to choose suppliers, and lack of availability in necessary quantity (Curtis & Cowee, 2009). Interestingly, 75% of these 148 executive chefs indicated that they did not purchase locally or discontinued purchasing locally because of either incomplete information or a lack of awareness.



Inconsistent quality might also make chefs stop purchasing locally-produced foods (Curtis & Cowee, 2009) because preparing food that is of high quality is important. The lack of established networks between restaurants and local food producers or organizations that promote local foods have been cited as reasons for not incorporating local foods into restaurant business (Inwood et al., 2009)

Gregoire, Arendt, and Strohbehn (2005) found that, 44% of local Iowa producers indicated they had never sold their produce to local foodservice operations because: “(a) I don’t produce enough quantity (17%); (b) the buyers are not receptive (17%); (c) I can’t get the price I want (14%); (d) I haven’t pursued it (14%); (e) I sell everything through my current avenues (14%); (f) I can’t meet the buyer’s product expectations (11%); (g) I don’t know the regulations (8%); and (h) I am not sure where to start (8%).” Gregoire et al. (2005) found that local producers were willing to sell their produces or meats directly to individual customers and foodservice operators through farmers’ markets. However, according to findings from a national survey, chefs in foodservice preferred purchasing foods not from famers’ markets, but directly from farmers (Institute of Agriculture and Natural Resources, 2003).

Locally-produced foods occasionally are a subject of controversy when the efficiency of food production and transit of locally-produced foods is compared to imported foods. From the environmental perspective of sustainability, comparing energy consumed in the form of local foods to the energy costs of imported foods is sometimes controversial because domestic locally-produced greenhouse vegetables consume electricity, while, on the other hand, imported tomatoes only have a transportation expense (Paloviita, 2010).

## The Hotel Industry

The hotel and lodging industry has grown remarkably since the first hotel opened in 1793 and has steadily increased over the years. In 2010, this industry generated over \$127.7 billion in revenue and was among the top 10 largest industries in the United States.

According to the American Hotel & Lodging Association (AH&LA) there were 51,015 hotel and lodging properties and 4,801,890 guest rooms in the United States (American Hotel & Lodging Association [AH&LA], 2011<sup>a</sup>). Around 2 million workers were employed in the hotel and lodging industry and paid \$188 billion in salaries (AH&LA, 2011<sup>a</sup>). In the state of Iowa in 2008, there were 660 hotel and lodging properties with 46,461 guest rooms (AH&LA, 2011<sup>b</sup>). These generated \$11.1 billion in total sales, and generated which yielded \$810 million in direct sales in the lodging industry (AH&LA, 2011<sup>b</sup>). In terms of employment in the year 2009, 8.6% of jobs in Iowa were related to the hotel and lodging industry in some manner.

### *Food & Beverage Revenue in the Hotel Industry*

According to the United States Census Bureau (USCB, 2011) numbers released in June 2011, more than 11.4 million employees worked for food and beverage services in the United States in 2009. Food and beverage revenue is considered a key component in the U.S. hotel and lodging industry and is one of the fastest growing revenue departments in full service hotels (Mandelbaum, 2000).

The quality and performance of Food and Beverage (F&B) operations in the hotel industry is often used as a factor by which patrons judge hotels (Nebel, Braunlich, & Zhang, 1994). F&B revenue is typically viewed separately from room revenue because hotels could

increase F&B revenue by attracting local patrons to their restaurants, lounges, and catering facilities (Mandelbaum, 2011). An industry report by Mandelbaum (2011) showed F&B revenue in hotel industry increased even in the recessionary years of 2001, 2002, 2003, and 2009. Data from the report also showed that the two major sources of F&B revenues were banquets (41.0%) and restaurants (30.2%). From 2009 to 2010, total F&B revenue in U.S. hotels nationwide increased by 8.6% (Mandelbaum, 2011).

According to the U. S. Hotel Operating Statistics Study, which contains data from more than 6,200 hotels in its database on the U.S. hotel industry's revenues and expenses, annual food revenue in full service hotels was \$10,677 per available room out of a total revenue of \$56,472 (18.9%) in 2010. F&B expenses in full service hotels were \$12,546 out of total expenses of \$25,121 per available room in 2010. A study conducted in 2000 by the Hospitality Research Group estimated the total value of all hotel procurement in the United States to be around \$15.85 billion (Higley & Frabotta, 2000). According to a study by Riley and Jauncey (1990), decision makers in the hotel industry can be affected by the internal management structure, which varies with the size of hotels when needing to make decisions. F&B directors are required to enhance revenue and profits, deliver hotel service concepts to guests, and achieve and maintain their properties' image (Nebel et al., 1994). According to a study conducted by Maier (2012), a full service hotel is defined as offering overnight accommodations, meeting spaces, and foodservice establishments. Limited service hotels tend to be smaller than full service hotels in the number of rooms and emphasize basic room accommodations and guest amenities, with minimal public areas such as lounge, bar, or dining room (Bardi, 2010).

## The Theory of Planned Behavior

### *The Theory of Planned Behavior (TpB)*

The Theory of Reasoned Action (TRA) predicts behavioral intentions through attitudes and subjective norms (Ajzen, 1988). According to TpB, attitudes toward a specific behavior along with subjective norms and perceived behavior control influence a person's behavioral intention (Ajzen, 1988). The component that differs in TpB from TRA is perceived behavior control as a determinant of both behavioral intention and behavior (Ajzen, 1988).

Perceived behavioral control is supported by control beliefs, which are “the perceived frequency of facilitating or inhibiting factors multiplied by the power of those factors to inhibit or facilitate the behavior in question” (Armitage & Christian, 2003, p.191). An adequate degree of actual behavior control affects the level of intention, which is an antecedent of behavior (Ajzen, 1988). Behavior is influenced by intentions and by perceived behavior control, which stimulate a person’s decision to attempt to perform the behavior (Ajzen, 1988). Intentions are ascertained by (a) attitudes which typify the overall valuation of the behavior; (b) subjective norms, which represent perceived pressure from significant others to execute the behavior; and (c) perceived behavioral control (Ajzen, 1988). According to Ajzen (1988, p. 150), TpB was developed “to permit prediction and explanation of behavioral achievement by taking into account motivational antecedents, reflected in intentions, as well as other factors that are only partly under volitional control, factors that are reflected in perceived behavioral control.”

To obtain accurate predictions of behavior, Ajzen (1996, p.389) argued that “intentions must remain reasonably stable over time until the behavior is performed”, which

could be explained by examining the moderating role of the temporal stability of intentions. Intentions evaluated when previously performing a behavior may change due to unfamiliar information or unknown obstacles and, accordingly, have reduced predictive power (Conner, Norman, & Bell, 2002). According to Sheeran, Orbell, and Trafimow (1999), when intentions are constant and reliable, intentions are more predictive; whereas, previous behavior is less predictive of consecutive behavior.

#### *Applying TpB to Local Foods Research*

TpB has been shown to be a satisfactory model to predict behavior and intention by a combination of psychosocial variables (Robinson & Smith, 2002). TpB has been applied to a number of studies to examine intentions and behaviors related to food handling, hotel choice, and nutrition (Pilling, Brannon, Shanklin, Howells, & Robert, 2008; York, Brannon, Roberts, Shanklin, & Howells, 2009). Conner et al. (2002) used TpB to predict short-term and long-term health eating behaviors among attendees in a health promotion clinic wishing to eat more healthy diet.

A previous study by Ryu and Jang (2006) using TRA found personal attitude was a significant antecedent of intention to consume local foods and beverages. Findings from the study were congruent with those of previous studies, which showed ecological behavioral intention was strongly-related to ecological behavior (Kaiser, Schultz, & Scheuthle, 2007). Onozaka, Nurse, and McFadden (2010), found that TpB helped predict behaviors of customers who were willing to pay more for locally-grown apples. TpB used in this study which found the purchasing behaviors were related to customers' desires to improve their health and support the local economy (Onozaka et al., 2010). While, previous researchers

have explored perceived benefits and obstacles of purchasing local foods, no known research has used a theoretical framework to assess intention to purchase local foods, specifically in the hotel industry.

## CHAPTER 3. METHODS

### Purpose of Study

This study examined Iowa hotel industry decision makers' perceptions of the benefits and challenges of purchasing local foods. Outcomes of this project provide insights for local food producers into the needs of the Iowa hotel industry and ways in which local food producers can serve this sector of the hospitality industry.

### Use of Human Subjects

The Iowa State University's Institutional Review Board (IRB) for Human Subjects research approved the protocol and questionnaires prior to data collection (Appendix A).

### Research Design

Two types of hotels in Iowa were selected for this study: 1) full service hotels with foodservice establishment(s) on-site (e.g., fine dining or casual restaurant, food served through room service, on-site catering), and 2) limited service hotels with limited foodservice (only complimentary breakfast). This study consisted of two phases - qualitative and quantitative. Phase 1 consisted of face-to-face interviews with decision makers from each type of hotel in Iowa. Interviews were conducted with at least two subjects from each type of hotel (2 from full service hotels and 2 from limited service hotels). The interviews provided an in-depth understanding of the perceptions of benefits and challenges of purchasing locally-produced food of decision makers in Iowa hotels. In addition, the interviews also

helped identify their current purchasing behaviors, and attitudes and knowledge of local foods.

Phase 2 employed a paper-based questionnaire to collect data. The questionnaire was developed based on the outcomes of interviews conducted in Phase 1 and review of literature related to local foods (Casselman, 2010; Ortiz, 2010; Strohbehn & Gregoire, 2002). Content and construct validity was determined by three individuals with expertise in local foods and foodservice operations. Five counties in Iowa (Central, Southwest, and Northwest) where the local food initiative is prominent (Leopold Center, 2011) were selected for Phase 2. The survey assessed decision makers' perceptions of the benefits and challenges of purchasing locally-produced food in the Iowa hotel industry and their needs relative to these purchasing decisions.

### Research Questions

The following research questions were posed in this study:

- What are the purchasing behaviors of hotel decision makers in the five Iowa counties?
- What are the perceived challenges and benefits of purchasing local foods by hotel decision makers in the five Iowa counties?
- What factors are considered to be critical for purchasing local foods by hotel decision makers in the five Iowa counties?
- How do attitudes, subjective norms, and perceived behavioral control influence intentions of purchasing local food by hotel decision makers in the five Iowa counties?



### *Phase I – Qualitative Phase*

#### Sample

Interview subjects were selected via purposive sampling, which is useful in attitude and opinion surveys (Ary, Jacobs, & Sorensen, 2010), of decision makers in the hotel industry in the city of Ames in Story County, Iowa. This county was chosen because it is centrally located in the state and represents both rural and urban populations, and because the local food initiative is prominent there (Story County Planning and Zoning Department [SCPZD], 2008; LCSA, 2011). In-depth, open-ended interviews were used to elicit key information from the hotel's decision makers (directors or managers), who were charged with purchasing food items for the business.

#### Interview Questionnaire

A questionnaire was developed for the face-to-face interviews with decision-makers in hotels (Appendix B). The questionnaire consisted of 15 open-ended questions and 10 demographic questions. The questionnaire were designed to elicit information regarding current purchasing attitudes towards local foods, characteristics of local food suppliers, perceived benefits or challenges of purchasing local foods, and future purchasing behaviors. The questionnaire was reviewed by three individuals with expertise in local foods and/or foodservice operations for content, construct, and face validity.

#### Data Collection

Two participants were selected from each category of hotel - full service hotels (n=2) and limited service hotels (n=2). Initial contact was made via telephone to obtain

commitment to participate in this study and to explain the purpose of this study (Appendix C). Consent forms were provided to each participant on-site before the interview (Appendix D). Interviews were conducted on-site at the participants' business and lasted approximately 40 minutes. All interviews were audiotaped. Participants received \$10 as cash incentive after completing the interview.

### Data Analysis

Data from the interviews were analyzed to determine decision makers' knowledge, perceptions of benefits and challenges of purchasing local foods, and current food purchasing practices. Data collected in Phase 1 along with the review of literature in the area of local food use were used to develop the questionnaire for Phase 2.

### *Phase 2 – Quantitative Phase*

#### Sample

The sample for this phase consisted of decision makers from hotels in five Iowa counties in Central, Southwest, and Northwest Iowa where the local foods initiative has been prominent: (a) Dallas County, (b) Polk County, (c) Black Hawk County, (d) Dubuque County, and (e) Pottawattamie County (LCSA, 2011). Contact information for each establishment which met the criteria for this study was obtained from the 2011 *AAA Tour Book* and the Convention and Visitors Bureau (for Black Hawk, Dubuque, and Pottawattamie counties) and from the Iowa Department of Inspections and Appeals (for Dallas and Polk counties only). Initially, information for 276 hotels was obtained from *AAA Tour Book*, the Convention and Visitors Bureau, and the Iowa Department of Inspections and Appeals. After

excluding those businesses that did not meet the criteria for this study, 209 hotels with a valid mailing address remained. Questionnaires were mailed to hotels in these five counties (n=209), comprising 35 full service hotels and 174 limited service hotels (Table 3).

**Table 3. Hotel Establishments Included in Phase 2**

County	Number of operations identified
Dallas	11
Polk	102
Black Hawk	22
Dubuque	33
Pottawattamie	41
<b>Total</b>	<b>209</b>

#### Survey Instrument

A questionnaire was developed, based on a review of the literature related to local foods (Casselmann, 2010; Strohbahn & Gregoire, 2002) and information obtained in Phase 1 (Appendix E). The questionnaire consisted of items that aimed to assess decision-makers knowledge, purchasing behavior, and attitudes towards purchasing local foods, and identify factors that could encourage behavior change among participants to purchase local foods. The questionnaire consisted of 22, 7-point Likert-style (1 = strongly disagree; 7 = strongly agree), 5 questions related to current food purchasing methods, and demographic questions. The questionnaire was developed, based on the principles of the TpB (Ajzen, 1988), because TpB can help identify factors that can influence and predict behavior change.

Three individuals with expertise in local foods and foodservice reviewed the questionnaire for content and construct validity. Six students reviewed the questionnaire for face validity. The final questionnaire, after all changes was distributed to participants via mail. To help participants' better understand the questionnaire, definitions of the following

terms were provided on the questionnaire: (a) local foods, (b) conventional vendors, and (c) buyer.

### Data Collection

Data collection for Phase 2 consisted of the following steps:

- Questionnaires were mailed to all hotel establishments (n=209) along with a cover letter explaining the purpose of this study. A stamped, self-addressed envelope was included so participants could return their completed questionnaire.
- Two weeks after mailing the questionnaires, a reminder postcard (Appendix F) was sent to participants who had not yet returned their questionnaire.

### Data Analysis

Descriptive statistics, t-tests, and correlations were computed using the Statistical Package for Social Sciences (SPSS) version 19.0.

## CHAPTER 4. PERCEPTIONS OF BENEFITS AND CHALLENGES OF PURCHASING LOCAL FOODS IN IOWA HOTELS

A paper to be submitted to the *Journal of Foodservice Business Research*

Kang, S. & Rajagopal, L.

### ABSTRACT

The purpose of this study was to use the Theory of Planned Behavior to explore hotel industry decision makers' perceptions of benefits and challenges of purchasing locally produced foods in a Midwestern state. Using interviews and questionnaires, this study showed that Perceived Behavior Control influenced decision makers' Behavioral Intention, while Attitudes and Subjective Norms did not. Purchasing local foods was perceived as beneficial, but decision makers experienced challenges with purchasing. This study provides local food producers with insights into the needs of the hotel industry and addressing those needs will open a new market for local food producers.

*KEYWORDS: local foods, theory of planned behavior, hotel industry*

### INTRODUCTION

Using sustainable methods is a trend that has gained popularity in recent times (National Restaurant Association [NRA], 2011). Benefits of purchasing local foods for retail foodservices include supporting the local economy, reducing transportation miles, and consuming fresher foods (Strohbehn & Gregoire, 2002). Challenges Procuring locally produced foods and eating healthy food that has been produced associated with purchasing local foods are year around availability, inadequate quantity, need of multiple contacts for

purchasing, and inconsistent quality (Casselmann, 2010; Gregoire, Arendt, & Strohbahn, 2005; Strohbahn & Gregoire, 2002; Gregoire et al., 2000). To date, studies related to local food use have been conducted in schools, restaurants, catering, and institutional settings, while there are no known studies that have explored local food use in the hotel industry. The purpose of this study was to examine Iowa hotel industry decision makers' perceptions of benefits and challenges of purchasing local foods. This study explored decision makers' intentions to purchase local foods by employing the Theory of Planned Behavior (TpB). Outcomes of this study provide an insight into the needs of the Iowa hotel industry which can serve as a potential new market for local food producers.

## **LITERATURE REVIEW**

### Local Foods

There is no standard definition used to define local foods in the United States (Zepeda & Li, 2006). Wilkins, Bokaer-Smith, and Hilchey (1996) defined local foods as food produced within a region within a county, neighboring counties, or a state. According to Zepeda & Leviten-Reid (2004), most food shoppers defined "local" in terms of transport time of food from nearby farms. The term is also defined by method of purchase, as well as either food miles or political boundaries (United States Department of Agriculture [USDA], 2009). Local foods in this study are defined as locally-grown (within 200 miles) or agricultural food products purchased directly from farmers through various outlets, such as, farmers' markets, Community Supported Agricultures (CSAs), "pick-your-own" farms, internet marketing, and niche markets.

### *Local Food Movement*

The local food movement has been regarded as a way of pursuing sustainable agriculture since the 1970s, when organic and local foods were introduced as a new concept of sustainable agriculture (Liebman, Krischenmann, Pirog, & Dewitt, 2008). According to the campaign "Know Your Farmer, Know Your Food", a USDA-wide effort to meet President Obama's commitment to enhance local and regional food systems in the United States (USDA, 2011<sup>a</sup>), the number of farmers' markets has grown from 1,755 in 1994 to more than 7,175 in 2011. The number of CSA operations has increased to over 4,000 in 2011, from only 2 CSA's in 1986 (USDA, 2011<sup>a</sup>). Farm-to-school programs have also remarkably increased from 2 in 1996 to more than 2,200 across the 48 states in 2011 (USDA, 2011<sup>a</sup>). The "Healthy Hunger-Free Kids Act of 2010" signed by President Obama supported farm to school programs allowing local producers to have more opportunities to provide locally produced food items to schools (USDA, 2011<sup>b</sup>). The USDA expects consumers' demand of local foods to rise from an estimated \$4 billion in 2002 to as much as \$7 billion by 2012 (USDA, 2011<sup>b</sup>).

The Iowa Department of Agriculture that oversees the Farmers Market Nutrition Program in Iowa has supported the increase in farmers' markets in Iowa (Iowa Department of Agriculture [IDA], 2012). A study by Pirog and McCann (2009) reported that the number of farmers' markets in Iowa increased from 65 in 1986 to 223 in 2009. Interestingly, despite the increase in the number of farmers markets in Iowa, it is estimated only 14% of produce consumed is grown within the state, out of \$8 billion annual food expenditures due to insufficient direct-to-consumer sales, infrastructure, and incentives to support local food production and marketing activities (Local Food & Farm Program [LF&FP], 2012).

### *Benefits of Purchasing Local Foods*

Foodservice operator's perceived benefits of purchasing local foods include reduced transportation miles and energy consumption, supporting local communities, fresher products, good public relations, availability of small quantity, and higher quality (Strohbehn & Gregoire, 2002; Strohbehn & Gregoire, 2005). Due to the perceived high quality and freshness of local foods, chefs in restaurants prefer using local foods (Murphy & Smith, 2009). Ortiz (2012) also found that restaurant customers were willing to pay more for menu items indicated as locally produced food items. Strohbehn and Gregoire (2003) suggested that consumption of local foods by restaurants, and institutions has the potential to increase the number of locally-produced fruits and vegetables growers. In a study by Sharma, Gregoire and Strohbehn (2009) of independent restaurants that used local foods found the production expenses for local and non-local foods were similar, with exception of delivery time costs being higher for local foods. ,

### *Obstacles of Purchasing Local Foods*

In previous studies, foodservice operators in Iowa rated twelve perceived obstacles of purchasing local foods as follows: year around availability, working with multiple vendors, obtaining adequate supply, consistent package size, local and state regulations, reliable food quantity, order methods, safety issues, on-time delivery, labor time to prep food, product cost, and payment procedures (Strohbehn & Gregoire, 2002). A survey of chefs conducted by Curtis and Cowee (2009) identified perceived obstacles of purchasing local foods to be lack of awareness, lack of information, lack of authority to choose suppliers, inconsistent quality, and lack of availability in necessary quantity and volume. Gregoire et al. (2005) found only



25% of local producers marketed their food to local restaurants and foodservice operations even though producers perceived marketing to these foodservice operations as being beneficial. . The lack of established networks between foodservices and local producers that promote local foods have been cited as reasons for not incorporating local foods into restaurant menus (Inwood, Sharp, Moore, & Stinner, 2009)

### Hotel Industry in the United States

The hotel industry is one of the top 10 industries in the United States. In 2010, revenue from the hotel and lodging industry was over \$127.7 billion generated from 51,015 hotel and lodging properties, and 4,801,890 guest rooms in the United States (American Hotel & Lodging Association [AH&LA], 2011<sup>a</sup>). More than 1.76 million employees were employed in the hotel industry and \$188 billion paid in employees' wages and salaries (AH&LA, 2011<sup>b</sup>). In Iowa, there were 660 hotel and lodging properties containing 46,461 guest rooms in 2008. In terms of employment, 16,188 employees (8.6% of all jobs in Iowa) were related to the hotel industry, which yielded \$810 million sales revenue in 2009 (AH&LA, 2011<sup>b</sup>). Thus, the hotel industry is a major industry that plays a crucial role in the economy of the United States and Iowa. Full service hotels are defined as providing overnight accommodations, meeting spaces, and foodservice establishments (Maier, 2012), while, limited service hotels provide basic room accommodations and guest amenities, with minimal public area such as bar, lounge, and dining room (Bardi, 2010).

### *Food and Beverage Revenue in the Hotel Industry*

Food and beverage (F&B) revenue plays a key role in the U.S. hotel and lodging industry because it is a revenue generating department in hotels (Lowe & Nicholas, 1997). According to the United States Census Bureau (United States Census Bureau [USCB], 2011), more than 11.4 million employees worked in food and beverage services in 2009. Revenue in the U.S. hotel industry increased even in recessionary years of 2001, 2002, 2003, and 2009; because food and beverage operations could bring in revenue for hotels by attracting non-lodging patrons even when hotel occupancy rates are lower (Mandelbaum, 2011). The two major sources of food and beverage revenue in the hotel industry are banquets (41.0%) and restaurants (30.2%). Therefore, food and beverage revenue plays a critical role in the bottom line of hotels and it can also be used as an important marketing tool. Because limited service hotels provided a limited number of amenities and food services (Hebert, 1997), limited hotels' RevPAR (Revenue per available room) could be used to compare full service hotels. RevPAR indicated differences between full service and limited service hotels as \$62 and \$38, respectively in 60% occupancy in 2002 (Smith Travel Research [STR], 2003). In 2002, there were 33,334 limited service hotels in the U.S. which were 2.6 times as many as full service hotels (STR, 2003).

### The Theory of Planned Behavior (TpB)

The theoretical framework employed in this study was derived from TpB. The pertinent difference between the TpB and the Theory of Reasoned Action (TRA) is that TpB contains a perceived behavioral control as a determinant of intention and behavior (Ajzen, 1988). Ajzen (1988, p. 132), explains TpB as “*a conceptual framework that addresses the*

*problem of incomplete volitional control.*” Perceived behavioral control is influenced by control beliefs, which are “*the perceived frequency of facilitating or inhibiting factors multiplied by the power of those factors to inhibit or facilitate the behavior in question*” (Armitage & Christian, 2003, p.191).

Attitudes, subjective norms, and perceived behavior controls influence intentions which motivate a person to perform the behavior (Ajzen, 1988). Intentions are determined by (a) attitude, which expresses the comprehensive valuation of the behavior; (b) subjective norm, known as social pressure from others to perform the behavior; and (c) perceived behavioral control, supported by control beliefs (Ajzen, 1988). TpB was expanded “*to permit prediction and explanation of behavioral achievement by taking into account motivational antecedents, reflected in intentions, as well as other factors that are only partly under volitional control, factors that are reflected in perceived behavioral control*” (Ajzen, 1988, p.150). A recent study by Onozaka, Nurse, and McFadden (2010) found the TpB module helped to predict customers’ behaviors, which were positive, to pay more for locally-grown apples. Previous researchers have explored perceived benefits and obstacles of purchasing local foods, but no known research has used a theoretical framework to assess intention to purchase local foods, specifically in the hotel industry.

## METHODS

### Research Design

This study was made up of two phases: 1) Interviews and 2) Paper-based questionnaires. This study classified hotels into two types based on the type of services provided by the hotels: full service hotels and limited service hotels. The research protocol

and questionnaires were approved by the University's Institutional Review Board prior to data collection. All participants provided informed consent before participation. The data collection instrument for both phases were reviewed by three individuals with expertise in local foods and/or foodservice operations for content and construct validity. Six hospitality management students evaluated the Phase 2 questionnaire for face validity. The questionnaires were modified until no further changes were necessary.

### Phase 1: Interviews

Phase 1 consisted of face-to-face interviews with a purposive sample of decision makers (general manager or foodservice director) from full service hotels (n=2) and limited service hotels (n=2). The purpose of qualitative analysis is to explore themes and categories from participant responses (McCracken, 1988) by coding data. *"Coding allows the researcher to communicate and connect with the data to facilitate the comprehension of the emerging phenomena and to generate theory grounded in the data"* (Basit, 2003, p.152). Themes are a level of abstraction above the categories (Ary, Jacobs, & Sorensen, 2010). Interviews were conducted within the same county in Central Iowa. All participants were the chief decision makers for purchasing food for their establishment. Potential participants were initially contacted by telephone using a script to explain the purpose and procedures of the study and obtain permission to interview them. Interview questions consisted of 15 open-ended questions designed to explore information in terms of decision makers' attitudes towards purchasing local foods. Demographic information was also collected. Interviews were conducted on-site with each interview lasting approximately 40 minutes. All interviews were audiotaped. Interviews were transcribed verbatim and the manually coded to analyze

data (Ary et al., 2010). Participants received \$10 as cash incentive after completing the interview.

### Phase 2: Paper-based Questionnaire

The questionnaire for Phase 2 was developed based on the outcomes of the Phase 1 interviews and a review of literature on local foods purchasing by the hospitality industry. The questionnaire consisted of 27, 7-point Likert-type questions (1 = strongly disagree; 7 = strongly agree), 5 questions related to current food purchasing, and demographic questions designed based on guidelines provided by Dillman (2007). TpB was used as the theoretical framework to explore behavior intention of decision makers' in Iowa hotels to purchase local foods. Sample for this phase was selected from five Central Iowa counties where local food initiatives have been prominent: (a) Dallas (b) Polk (c) Black Hawk, (d) Dubuque, and (e) Pottawattamie. Contact information for hotels in Iowa which met the study's criteria was obtained from the 2011 AAA Tour Book and the *Visitors and Convention Bureau* (Black Hawk, Dubuque, and Pottawattamie) and mailing lists were obtained from the Iowa Department of Inspections and Appeals (Dallas and Polk). Initially, 276 hotels were selected, after excluding businesses that did not meet the criteria for this study, 209 hotels with a valid mailing address were identified. Questionnaires were mailed to these hotels (n=209) along with a cover letter of consent explaining the purpose of study along with a pre-stamped return envelope. Reminder cards were sent after 10 days to establishments that had not returned the questionnaire. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 19.0. The following research questions were posed in this study:

- What are the purchasing behaviors of hotel decision makers in the five Iowa counties?
- What are the perceived challenges and benefits of purchasing local foods by hotel decision makers in the five Iowa counties?
- What factors are considered to be critical for purchasing local foods by hotel decision makers in the five Iowa counties?
- How do attitudes, subjective norms, and perceived behavioral control influence intentions of purchasing local food by hotel decision makers in the five Iowa counties?

## RESULTS

### Phase 1: Interviews

A purposive sample of four decision makers from Central Iowa hotels participated in the qualitative interviews (Male = 2, Females = 2). Two participants were general managers from limited service hotels who supervised all operations in their establishments and two F&B directors from full service hotels that only supervised F&B operations. Length of employment at the current workplace ranged from 7 months to 4 years. Ownership structure of all participating hotels was franchised from corporate chain hotels. Limited service hotels served complimentary breakfast only, while full service hotels operated an on-site restaurant with a bar and in addition prepared food for room service, banquets, weddings, and caterings. Participants defined local foods as: foods purchased from farmers markets or directly from the farm, locally grown foods within a thirty mile radius of the location, anything grown within one county, and foods purchased from local growers or local vendors. Findings from

interviews revealed three participants were currently purchasing some local foods while one participant had never purchased local foods. Three participants who were currently purchasing some local foods purchased it from the local farmers market, but purchased all other foods from conventional vendors. Local foods that were purchased depending on seasonal availability were: locally grown vegetables and fruits such as apples, pumpkins, squashes, tomatoes, and potatoes. Interestingly, one participant from a full service hotel purchased locally farm raised chicken and ostrich, as well. Due to seasonal availability of local produce, three participants could not purchase locally grown vegetables all around year, while proteins such as chickens and ostriches could be purchased all around year.

Data analysis revealed the following themes and subthemes: (a) local foods, (b) purchasing attitudes, (c) purchasing local foods, (d) purchasing conventional foods, (e) benefits of local foods, and (f) challenges of local foods (Figure 1). The four decision makers interviewed considered quality and price as a top priority when they purchase food items for their establishments. Quality and price were important when purchasing from both local and conventional sources. Benefits of purchasing local foods identified in this study were: (a) freshness, (b) supporting local economy, (c) relationships with local farmers, (d) amount flexibility, (e) price, and (f) taste, while obstacles were: (a) inconsistent quality, (b) many contacts, (c) seasonality, and (d) inadequate quantity.

#### *Perceived Benefits of Purchasing Local Foods*

Three out of four participants were currently purchasing food from local sources. Perceived benefits of purchasing local foods, which in turn were viewed by participants as beneficial to their business are illustrated below by the following comments.

*“Corporation requires us to have certain food. The only ones that we have flexibility on are apples and bananas. Bananas are hard to get locally, unfortunately. I’d say is just building a relationship with the people that actually grew the food is a very positive experience. I’d say the freshness and the quality is the biggest one.” (Hotel General Manager)*

*“A positive experience, you know usually they’re able to give good suggestion from the farmers’ market. Another thing is that they are all very friendly and sometimes, you know, they’re willing to throw in a little extra for you. The other thing obviously is the quality of the food.” (Hotel General Manager)*

*“It kind of depends on what the needs of the guests are and generally taste” (Food and Beverage Director)*

*“I think it will be fresher obviously. And also it will be supporting local growers. I am sure that it will have a flexible with you as far as buying some produces. I can’t negotiate with Hyvee or Walmart.” (Food and Beverage Manager)*

Participants of limited service hotels indicated that purchasing local foods was limited by their corporate policies, which only allowed hotels to purchase certain foods from local sources while most foods were required to be purchased from conventional sources. One decision maker purchased apples from a farmers’ market only during the summer and purchased majority of foods from conventional vendors. Despite corporate restrictions, purchasing local foods was perceived to be beneficial by limited service hotels as it could help build relationships with local producers. Interviews with decision makers from limited service hotels’ showed that decision makers purchased local foods for the following reasons: (a) freshness, (b) taste, (c) better product quality, (d) building working relationships with local producers, (e) competitive price, and (f) improving hotel’s reputation.

Unlike limited service hotels, full service hotels’ in this study did not have any corporate restrictions related to purchasing local foods although still part of a chain. One participant had been purchasing a variety of foods, such as pumpkins, tomatoes, squashes,



corn, chicken, and ostrich meat from local sources. Interviews with decision makers in full service hotels showed that decision makers purchased local foods for the following reasons:

(a) taste and (b) satisfying guests' requests.

### *Perceived Obstacles of Purchasing Local Foods*

Perceived challenges of purchasing local foods are illustrated below by the following comments.

*“We do have people ask us that, yes. And we explain to them the type of hotel, we are an economy hotel, a budget hotel, so we don't have a huge breakfast budget and a lot of people understand that buying locally sometimes costs more, so they usually understand, but they have asked before.” (General Manager)*

*“Well, I'd say the main problem is you don't get the consistency size-wise, maybe ripeness-wise. If you're buying tomatoes appearance-wise, so, you know, those things are generally inconsistent when you're buying local foods.” (Food and Beverage Director)*

*“Well, you're not going to have locally grown produce, but there are locally grown proteins and those types of things, I mean, you've got the Ostrich Co-op here in Iowa that produces a wonderful product. Access is a little hard, but, you know, I can get that, and it's a wonderful product. Chickens you have to be kind of careful with 'cause they have to be produced and slaughtered in a state plant if they are coming into a restaurant, and so those are a little bit shaky. Pork you can get very easily, beef you can get, it's not real easy, but you know, you can get locally-grown proteins. Whether or not you can get the produce is something else.” (Food and Beverage Director)*

*“It will be so time consuming but for us there's just two managers so it's hard to for us to leave the property to go to the farmers market. I don't even know who to contact. I mean I don't know who I contact first.” (Food and Beverage Manager)*

*“Probably the most, biggest down side is that most times it's only available during the summer, three months, so that's kind of hard. And then another negative is we serve breakfast to probably 50 to 100 people a day, so being able to buy that quantity of apples locally can be very difficult. It would be very nice to have a bigger supply.” (Hotel General Manager)*

Though decision makers were willing to buy more local foods, they faced challenges with procuring adequate quantities needed and consistent quality products. Interviews with participants in limited hotels indicated the following challenges with purchasing local foods: (a) lack of a defined budget for food and beverage operations as a major challenge to purchasing local foods despite guest requests for local foods, (b) seasonality, and (c) inadequate quantity.

Decision makers of full service hotels mentioned they did not have any challenges with seasonality when purchasing proteins from local producers. Interviews with participants in full service hotels indicated the following challenges with purchasing local foods: (a) inconsistent food quality, (b) seasonality, and (c) lack of information about local food sources.

## Phase 2: Paper-based Questionnaire

### *Data Collection*

The population for this study was 276; 67 establishments were removed from consideration because the addresses were duplicate or the business had closed down. Questionnaires were mailed to 209 hotels in the five Iowa counties where the local foods initiative has been prominent (Leopold Center, 2011). Forty questionnaires were completed and returned, resulting in a response rate of 19.1%, which is a typical response rate from the commercial foodservice industry (Casselman, 2010) as obtaining responses from industry representatives is difficult in the hospitality industry (Brown, 2008).

### *Demographic Characteristics*

Demographic characteristics of respondents are show in Table 4.1. Sixteen full service hotels (40%) and 24 limited service hotels (60%) participated in this study. Twenty-five hotels were independently-owned (64.1%) and franchised, while 14 were owned by a corporate chain (35.9%). Thirty-two (80%) respondents were decision makers in charge of ordering food for their properties, while eight respondents (20%) indicated they worked as full-time or part-time employees and made purchasing decisions for their property. The type of foodservice provided at the hotels were complimentary breakfast (82.5%), vending machines (42.5%), casual dining restaurants (17.5%), buffets(17.5%), and bar (17.5%). Most respondents were aware of local foods (92.3%), but only 9 respondents (22.5%) currently purchased local foods.

### *TpB and Local Food Purchasing Intention*

TpB was used as the theoretical framework to determine behavioral intention of decision makers' in Iowa hotels to purchase local foods by assessing attitudes, subjective norms, and perceived behavioral control. The Cronbach's coefficient of reliability (Table 4.2) ( $\alpha$ ) was: attitudes (0.77), subjective norms (0.91), perceived behavioral controls (0.76), and behavioral intentions (0.91) which were above 0.7 and is considered reliable (Hair, Anferon, Tatham, & Black, 1998).

#### Attitudes (Attitudes)

The overall mean for attitudes towards purchasing local foods was ( $M=5.32$ ,  $SD=0.73$ ). Perceived benefits of purchasing local foods were: were fresher ( $M=5.78$ ,

$SD=1.00$ ), helped local economy ( $M=5.71$ ,  $SD=1.17$ ), and were more nutritious ( $M=5.60$ ,  $SD=1.09$ ). Perceived challenges of purchasing local foods were: more expensive ( $M=5.79$ ,  $SD=1.19$ ), seasonal availability ( $M=5.65$ ,  $SD=1.15$ ), required more labor to prepare ( $M=5.08$ ,  $SD=1.17$ ), limited food quantity ( $M=5.00$ ,  $SD=1.52$ ), more contacts required for purchasing ( $M=4.89$ ,  $SD=1.37$ ), had more issues with food safety ( $M=4.84$ ,  $SD=1.41$ ), and lack of refund policies ( $M=4.82$ ,  $SD=1.82$ ) (Table 4.2).

#### Subjective Norms (SN)

The overall mean for *SN* was ( $M=4.35$ ,  $SD=1.48$ ). In this study, social normative pressure was appraised by examining social pressure to support local food vendors and the local economy. *SN* could include pressure from co-workers, competitors, local communities, and/or customers. Participants rated *SN* in the following order: pressure from customers ( $M=4.43$ ,  $SD=1.66$ ), competitors ( $M=4.36$ ,  $SD=1.72$ ), co-workers ( $M=4.26$ ,  $SD=1.68$ ), and local communities ( $M=4.26$ ,  $SD=1.68$ ) (Table 4.2.).

#### Perceived Behavioral Controls (PBC)

The overall mean of *PBC* was ( $M=4.43$ ,  $SD=1.18$ ). Participants viewed purchasing local foods as helping the local economy ( $M=4.75$ ,  $SD=1.55$ ), while decision of purchasing local foods did not depended on decision makers' ( $M=4.70$ ,  $SD=1.74$ ). Decision makers believed they did not have the time or resources to visit local food vendors ( $M=4.45$ ,  $SD=1.71$ ) even though decision makers were willing to buy local foods as evidenced by attitude scores. Decision makers were moderately confident that they could improve

customers' satisfaction through serving local foods ( $M=4.23$ ,  $SD=1.59$ ) and overcome challenges associated with purchasing local foods ( $M=4.08$ ,  $SD=1.54$ ) (Table 4.2.).

### Behavioral Intentions (BI)

The overall mean of *BI* was ( $M=4.48$ ,  $SD=1.40$ ). Results for *BI* indicated that decision makers would not be willing to make additional efforts to buy local foods ( $M=3.92$ ,  $SD=1.77$ ), but would be willing to buy local foods if producers' reached out to hotels ( $M=4.10$ ,  $SD=1.73$ ) and if there was a single point of purchase ( $M=4.36$ ,  $SD=1.56$ ). Respondents indicated that they would be willing to purchase local foods if some of the challenges such as; inconsistent quality ( $M=4.82$ ,  $SD=1.68$ ), lack of competitive pricing ( $M=5.05$ ,  $SD=1.62$ ), and presence of a return policy for poor quality/unsafe products ( $M=4.64$ ,  $SD=1.71$ ) were overcome (Table 4.2.).

### Correlations between Attitudes, SN, PBC, and BI

The correlations among all predictors were significant: between *Attitudes* and *BI* ( $r=0.30$ ,  $p<0.05$ ), between *Attitudes* and *SN* ( $r=0.53$ ,  $p<0.05$ ), between *Attitudes* and *PBC* ( $r=0.35$ ,  $p<0.05$ ), between *SN* and *PBC* ( $r=0.27$ ,  $p<0.05$ ), between *SN* and *BI* ( $r=0.33$ ,  $p<0.05$ ), between *PBC* and *BI* ( $r=0.64$ ,  $p<0.05$ ) (Table 4.3.). The results from the data analysis (Figure 2) showed similar concepts from TpB which *Attitudes*, *SN*, *PBC* were correlated each other and influenced *BI* (Ajzen, 1988).

t-test for Types of Hotels and TpB variables (Attitudes, SN, PBC, and BI)

One tailed, t-test was used to investigate whether there were any differences between types of hotels and TpB variables. No statistically significant relationships were found between type of hotels and *Attitudes* ( $t=0.79, p>0.05$ ) and *SN* ( $t=1.22, p>0.05$ ) while significant relationship was found between type of hotels and *PBC* ( $t=2.14, *p<0.05$ ). *PBC* was significantly different between full service hotels and limited service hotels (Table 4.4.).

## DISCUSSIONS

The purpose of this study was to examine the hotel industry decision makers' perceptions of benefits and challenges of purchasing local foods in one state in Midwestern United States. Qualitative and quantitative methods were employed to answer the research questions by collecting data from hotels. The theoretical framework of TpB was utilized to assess decision makers' *BI* to purchase local foods. Most respondents (92.3%) were aware of local foods, but 77.5% of respondents did not purchase local foods for their establishments. While participants were aware of local foods, the awareness did not result in actual purchasing behavior. The reasons for this disconnect were cost, unavailability of resources, seasonal availability, and inadequate quantity among others. A common observation from qualitative interviews with full service and limited service hotels was the lack of information on how and where to purchase local foods. These findings are similar to those observed by Casselman (2010); Gregoire et al. (2005); Gregoire and Strohbehn (2002); Gregoire et al. (2000); and Inwood et al. (2009) in various sectors of foodservice.

Results from quantitative surveys showed decision makers indicated: "I do not have the time and resources to visit food vendors". These results suggest that local food producers

should reach out to decision-makers in the hotel industry and provide information about procuring local foods to gain new customers. Gregoire et al. (2005) found that due to lack of knowledge about regulations among producers and foodservice operators, local producers were not selling their products to commercial foodservice operations Casselman (2010) suggested that making a personal connection between buyers and local vendors was important for the catering industry decision makers to purchase local foods. A study by Curtis and Cowee (2009) found that restaurant chefs did not purchase local foods due to lack of information and awareness of how and where to purchase local foods. In this study, 75% of respondents indicated that they did not purchase locally or discontinued purchasing locally owing to the challenges associated with purchasing local foods. Starr et al. (2003) stressed that local food buyers should emphasize quality and service they can provide to their customers to encourage institutions to purchase local foods.

To overcome these challenges, Strohbehn and Gregoire (2002; 2003) suggested developing a weekly “Fact Sheet” which would include product information for purchasing decisions such as products available, size of food items, description of quality, quantities available, and price per purchase unit and suggested a “one-vendor” approach to simplify of the purchasing process of local foods. It is suggested that local producers develop new approaches to fill the gap in information between sellers and buyers by developing informational brochures, organizing local food fairs that caters to the needs of the hotel industry, and visit hotels to advertise local food initiatives in the area. Brochures should contain contact information of local producers and organizations responsible for local food initiatives, types of foods available, quality descriptions, price, delivery method, refund policy, and special offers for the hotel industry. Efforts to connect with the hotel industry can

be an excellent opportunity for local producers and hotels to build relationships. Building relationships can also open avenues for selling wines and non-food items such as flowers, soaps, and other guest room supplies. Benefits and challenges experienced by hotel decision makers with purchasing local foods were similar to those experienced by decision makers in institutional and commercial foodservice operations (Strohbehn & Gregoire, 2002), catering industry (Casselman, 2010), restaurants and institutional foodservice operations (Gregoire et al., 2005; Ortiz, 2010).

Based on correlations analysis, statistically significant relationships were observed between *Attitudes*, *SN*, *PBC*, and *BI*, with higher correlation between *PBC* and *BI*. This suggests that among the three variables (*Attitudes*, *SN*, and *PBC*), *PBC* was a good indicator of *BI*. In this study, decision makers identified several perceived benefits challenges and benefits of purchasing local foods which influenced their behavior. Since *PBC* had a significant influence on *BI* as evidenced in this study, local food producers can try to bring about change in hotel industry decision makers by providing decision makers with the appropriate resources to purchase local foods. Resources provided could be: providing more information about local foods through informational brochures, organizing food fairs, developing one-on-one relationships with hotel decision makers by visiting establishments, and other direct marketing techniques to promote their products to this demographic. A study conducted by the Institute of Agriculture and Natural Resources (2003) found that chefs in restaurants preferred to purchase directly from farmers, rather than farmers' markets. Strohbehn and Gregoire (2003) indicated that while direct marketing with farmers is desirable, some foodservice operators perceive that to be an obstacle. While, *Attitudes* did influence *BI*, this correlation was not high. Studies have shown that positive attitudes towards



sustainable food products did not necessarily influence *BI* positively (Nurse, Onozaka, & McFadden, 2008). Therefore, *Attitudes* alone is a poor predictor of *BI* (Ajzen, 2001).

Decision makers from both full service hotels and limited service hotels indicated that some customers requested to be served menu items prepared with local foods. However, in this study, *SN* did not influence decision makers' *BI* to purchase local foods which could be due to challenges such as budget constraints, corporate policy/restrictions, seasonality, inadequate quantity, or high price identified by the decision makers. However, respondents in this study indicated that hotels would be willing to purchase local foods if producers could address the challenges, but purchasing would not necessarily be due to social pressure from guests or co-workers. To explore decision makers' purchasing behavior of local foods, all predictors' should be considered together, however in this study *PBC* had the most influence on *BI*, which in turn could influence behavior.

Statistically significant differences in *PBC* were observed among full service hotels and limited service hotels. This could be because; full service hotels serve a large number of customers which require a consistent and reliable supply of products which are of high quality, which may not be possible to obtain from local food producers. However, hotel decision makers in this study indicated that they would purchase local foods if they could. However, decision makers were less confident about overcoming challenges associated with purchasing local foods because of corporate policies, lack of information, and budget constraints. Also, findings from qualitative interviews suggested that decision makers in limited service hotels had budget constraints and had corporate policies which dictated decision makers' food purchasing behaviors.

In this study, *PBC* was shown as an important predictor of *BI*. This implies that decision makers' authority in hotels plays a key role in purchasing decisions for their establishments. Previous studies also showed *PBC* as a better predictor of *BI* than attitudinal variables alone (Sparks & Shepard, 1992; Pouta & Rekola, 2001). Though *PBC* significantly influenced *BI*, findings from this study showed that decision makers in hotel industry were not purchasing local foods due a variety of reasons among which lack of information about where and how local foods could be purchase was the most commonly identified concern. According to Gregoire et al. (2005), local producers were willing to sell their produce and meats through farmers' markets than directly to local foodservice operations due to unreceptive buyers and inability of producers to meet foodservice operators' need for year-round, consistent quality products. However, it has been found that chefs in foodservice operations preferred to purchase foods directly from local producers (Institute of Agriculture and Natural Resources, 2003). The difference in purchasing preferences between local producers and buyers could be due to the lack of established networks or information about the existence of available networks. Lack of information about local foods was indicated to be a reason for not incorporating local foods into Colorado restaurant menus (Inwood et al., 2009).

Decision makers mentioned that they would buy local foods, if local producers contacted them rather than them having to spend time to seek out information about local foods. Qualitative interviews suggested that decision makers purchased local foods through farmers markets because they did not have any contact information of local producers. One participant also pointed out that local producers' did not always provide proper pricing information and prices for similar products varied between producers, which made the

decision to purchase local foods difficult. It is advisable for local food producers to develop competitive pricing standards for similar products. Pricing information can be published yearly on the web or in hard copy along with product information and contact information for purchasing.

Findings of this study provide insights to local food producers about the needs of the hotel industry. By taking into account the needs of the hotel industry, local food producers can open new avenues for business. Promotion of local food initiatives along with attempts to reach out to this section of the hotel industry will be beneficial to both parties.

#### Limitations

There were several limitations recognized in this study. Lack of participation was a challenge as evidenced by the low response rate, however the response rate achieved in this study was typical for the hospitality industry. Because participation in this study was voluntary, the results obtained in this study should be interpreted with caution. The data was self-reported, which may not have provided a complete understanding of the hotel industry decision makers' views on purchasing local foods. Finally, this study was designed to conduct a survey with hotel industry decision makers, but few (20%) full-time employees or part-time employees completed the questionnaire. However, responses from these full-and part-time employees were included in this study because they were responsible for purchasing foods in their establishments. Future studies could collect information only from major decision makers in hotels to determine their perceptions of local food use and needs. Findings from cannot be generalized to hotel industry decision makers' in other parts of the United States because this study was conducted in one Midwestern state.

## CONCLUSIONS

Results from this study showed that decision makers in the hotel industry were willing to buy local foods and *PBC* highly influenced *BI* of purchasing local foods. While, *Attitudes* and *SN* did influence *BI* they did not significantly influence *BI*. Benefits and obstacles of purchasing local foods perceived by hotel industry decision makers were similar to the results obtained from institutional, commercial, and catering industry. Results from this study also showed that decision makers were willing to purchase local foods if they could overcome some of the challenges associated with procurement. It is suggested that local food producers' make efforts to promote their products by organizing food fairs that highlight local foods, provide information brochures, develop one-on-one relationships with stakeholders in the hotel industry, and develop strategies to serve the hotel industry taking their own limitations into consideration.

Future studies can explore ways in which limited service hotels could improve purchasing intentions. Additionally, future studies can investigate local foods purchasing behaviors vary in based on hotel rating (five-star, four-star). Similar to studies conducted by Sharma et al. (2009) and Ortiz (2010), customer willingness to pay more for hotel services products from local producers can also examined. The sample in this study was smaller, future studies can increase participation by providing participant incentive to all participants. Additionally, this study collected data using TpB as the theoretical framework; so, future studies can use a qualitative approach that can yield a deeper understanding of the perceptions of benefits and challenges and needs of decision makers in the hotel industry.

## REFERENCES

- Ajzen, I. (1988). *Attitudes, Personality, and Behavior*. Chicago, IL: The Dorsey Press.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27-58. doi:10.1146/annurev.psych.52.1.27
- American Hotel & Lodging Association [AH&LA]. (2011<sup>a</sup>). *2011 Lodging Industry Profile*. Retrieved from <http://www.ahla.com/content.aspx?id=32567>
- American Hotel & Lodging Association [AH&LA]. (2011<sup>b</sup>). *Lodging industry: 2009 state overview*. Retrieved from [http://www.ahla.com/uploadedFiles/AHLA/government\\_affairs/State\\_Fact\\_Sheets/Iowa.pdf](http://www.ahla.com/uploadedFiles/AHLA/government_affairs/State_Fact_Sheets/Iowa.pdf)
- Armitage, C. J., & Christian, J. (2003). From attitudes to behavior: Basic and applied research on the theory of planned behaviour. *Current Psychology*, 22(3), 187-195. doi:10.1007/s12144-0031015-5
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education*. Belmont, CA: Wadsworth.
- Bardi, J. A. (2010). *Hotel Front Office Management*. Hoboken, NJ: John Wiley & Sons, Inc.
- Basit, T. N. (2003). Manual or electronic? the role of coding in qualitative data analysis. *Educational Research*, 2, 143-154. doi:10.1080/0013188032000133548
- Brown, E. A. (2008). *Dimensions of transformational leadership and relationship with employee performance in hotel front desk staff*. (Master's thesis). Iowa State University, Ames, IA.
- Casselman, A. L. (2010). *Local foods movement in the Iowa catering industry*. (Master's thesis). Iowa State University, Ames, IA.
- Curtis, K., & Cowee, M. (2009). Direct marketing local food to chefs: Chef preferences and perceived obstacles. *Journal of Food Distribution Research*, 40(2), 26-36. Available at <http://purl.umn.edu/99784>
- Dillman, D. A. (2007). *Mail and Internet Surveys, the Tailored Design Method*. Danvers, MA: John Wiley & Sons, Inc.
- Gregoire, M. B., Arendt, S. W., & Strohbehn, C. H. (2005). Iowa producers' perceived benefits and obstacles in marketing to local restaurants and institutional foodservice operations. *Journal of Extension*, [On-line], 43(1) Article 1RIB1. Available at: <http://www.joe.org/joe/2005february/rb1.php>

- Gregoire, M. B., Strohbehn, C., Huss, J., Huber, G., Karp, R., & Klien, S. (2000). *Local food connections: From farms to schools*. (Pamphlet #: PM1853A). Ames, IA: Iowa State University Extension. Available at:  
<http://www.extension.iastate.edu/Publications/PM1853A.pdf>
- Hair Jr., F., Anferon, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis with readings* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Hebert, D. (1997). Limited-service headed for a curve? *Hotel & Motel Management*, 212 (1), 66-68.
- Institute of Agriculture and Natural Resources. (2003). *Approaching foodservice establishments with locally grown products*. Lincoln, NE: Food Processing Center, University of Nebraska. Retrieved from <http://www.foodmap.unl.edu>
- Inwood, S. M., Sharp, J. S., Moore, R. H., & Stinner, D. H. (2009). Restaurants, chefs and local foods: insights drawn from application of a diffusion of innovation framework. *Agriculture and Human Values*, 26 (3), 177-191. doi:10.1007/s10460-008-9165-6
- Iowa Department of Agriculture [IDA]. (2012). *Division of soil conservation*. Retrieved from <http://www.iowaagriculture.gov/soilConservation.asp>
- Leopold Center for Sustainable Agriculture. (2011, January). *Local food in Iowa: Increased opportunities for economic growth* Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2011-01-local-foods-iowa-increased-opportunities-economic-growth.pdf>
- Liebman, M., Kirschenmann, F., Pirog, R., & Dewitt, J. (2008). Sustainable agriculture in the United States: Maturation and new directions, *Leopold center*, ISU.
- Local Food and Farm Program [LF&FP]. (2012). Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2012-01-local-food-and-farm-program-preliminary-report.pdf>
- Lowe, K. D., & Nicholas, E. (1997). Chaos in a crowded market. *Restaurant and Institutions*, 64-117.
- Maier, T. A. (in press, 2012). Hospitality industry revenue management performance modeling: Uncovering issues associated with inconsistencies in price parity across multiple distribution channels in the US hotel market. *International Journal of Revenue Management*. Retrieved from [http://works.bepress.com/thomas\\_maier/4/](http://works.bepress.com/thomas_maier/4/)
- Mandelbaum, R. (2011). *Hotel Food and Beverage Locals Up Lounges Down*. PKF Consulting USA. Retrieved from [http://www.pkfc.com/en/pkfhome/FreeStuff/IndustryReports/IR2011\\_06A.aspx](http://www.pkfc.com/en/pkfhome/FreeStuff/IndustryReports/IR2011_06A.aspx)

- McCracken, G. (1988). *The Long Interview* (Sage University Paper Series on Qualitative Research Methods, No.13). Newbury Park, CA: Sage.
- Murphy, J., & Smith, S. (2009). Chefs and suppliers: An exploratory look at supply chain issues in an upscale restaurant alliance, *International Journal of Hospitality Management*, 28, 212-220. doi:10.1016/j.ijhm.2008.07.003
- National Restaurant Association [NRA]. (2011). *Hottest restaurant menus trends in 2012 include health kids' meals and locally sourced ingredients*. Retrieved from [http://www.restaurant.org/pressroom/social-media-releases/release/?page=social\\_media\\_whats\\_hot\\_2012.cfm](http://www.restaurant.org/pressroom/social-media-releases/release/?page=social_media_whats_hot_2012.cfm)
- Nurse, G., Onozaka, Y., & McFadden, D. T. (2008). *Understanding the connections between consumer motivations and buying behavior: The case of the local food system movement*. Paper presented at the AAEA annual meeting, Orlando Florida, 27 – 29 July 2008. Available at: [http://ageconsearch.umn.edu/bitstream/56494/2/SAEApaper\\_final\\_Nurse.pdf](http://ageconsearch.umn.edu/bitstream/56494/2/SAEApaper_final_Nurse.pdf)
- Onozaka, Y., Nurse, G., & McFadden, D. T. (2010). *Local food consumers: How motivations and perceptions translate to buying behavior*. Choices: The Magazine of Food, Farm and Resource Issues. 1st quarter 2010. [Online magazine]. Available at: <http://www.farmdoc.illinois.edu/policy/choices/20101/2010103/2010103.pdf>
- Ortiz, A. (2010). *Customers' willingness to pay premium for locally sourced menu items*. (Master's thesis). Iowa State University, Ames, IA.
- Pirog, R., & McCann, N. (2009). *Is local food more expensive? A consumer price perspective on local and non-local foods purchased in Iowa*. Ames, IA: Leopold Center, Iowa State University.
- Pouta, E., & Rekola, M. (2001). The theory of planned behavior in predicting willingness to pay for abatement of forest regeneration. *Society and Natural Resources*, 14, 93-106. doi:10.1080/089419201300000517
- Sharma, A., Strohbehm, C. H., & Gregoire, M. B. (2009). Assessing costs of using local foods in independent restaurants. *Journal of Foodservice Business Research*, 12 (1), 55-71. doi:10.1080/15378020802672089
- Smith Travel Research [STR]. (2003). *The Host Study 2002: Hotel Operating Statistics*. Hendersonville, TN: Smith Travel Research.
- Sparks, P., & Shepard, R. (1992). Self- Identity and the theory of planned behavior: Assessing the role of self-identification with “green consumerism”. *Social Psychology Quarterly*, 55, 388-399. Available at: <http://www.jstor.org/stable/2786955>



- Starr, A., Card, A., Benepe, C., Auld, G., Lamm, D., Smith, K., & Wilken, K. (2003). Sustaining local agriculture: Barriers and opportunities to direct marketing between farms and restaurants in Colorado. *Agriculture and Human Values*, 20, 301–21. doi:10.1023/A:1026169122326
- Strohbehn, C. H., & Gregoire, M. B. (2002). *Institutional and commercial foodservice buyers' perceptions of benefits and obstacles to purchase of locally grown and processed foods* (Project No. 2001-38). Ames, Iowa: Leopold Center for Sustainable Agriculture. Available at: <http://www.extension.iastate.edu/NR/rdonlyres/20C4D693-445E-4044-AA0A-B6E3AE3F64AE/61394/FarmentoSchoolsReport.pdf>
- Strohbehn, C. H., & Gregoire, M. B. (2003). Case studies of local food purchasing by central Iowa restaurants and institutions. *Foodservice Research International*, 14(1), 53-64. doi:10.1111/j.1745-4506.2003.tb00177.x
- Strohbehn, C. H., & Gregoire, M. B. (2005). Local foods: From farm to college and university foodservice. *The Journal of Foodservice Management and Education*, 1, 1-20. Retrieved from [http://www.fsme.org/journal\\_2005.html](http://www.fsme.org/journal_2005.html)
- U. S. Census Bureau [USCB]. (2011). *United States Accommodation and Food Services*. Retrieved from <http://censtats.census.gov/cgi-bin/cbpnaic/cbpdetl.pl>
- U. S. Department of Agriculture, National Agricultural Library [USDA]. (2009). *Community Supported Agriculture*. Retrieved December, 2009, from <http://www.nal.usda.gov/afsic/pubs/csa/csa.shtml>
- U. S. Department of Agriculture [USDA]. (2011<sup>a</sup>). *Mission statement: USDA launches 'Know Your Farmer, Know Your Food' initiative*. Retrieved from [http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF\\_MISSION](http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_MISSION)
- U.S. Department of Agriculture [USDA]. (2011<sup>b</sup>). *New USDA rule encourages the purchase of local agricultural products for critical nutrition assistance programs*. Retrieved April 26<sup>th</sup> 2011, from <http://www.fns.usda.gov/cga/pressreleases/2011/0180.htm>.
- Wilkins, J. L., Bokaer-Smith, J., & Hilchey, D. (1996). *Local foods and local agriculture: A survey of attitudes among northeastern consumers*. Ithaca, NY: Cornell University, Division of Nutritional Sciences.
- Zepeda, L., & Leviten-Reid, C. (2004). Consumers views on local food. *Journal of Food Distribution Research*, 35(3), 1–6. Available at: <http://ageconsearch.umn.edu/bitstream/27554/1/35030001.pdf>
- Zepeda, L., & Li, J. (2006). Who buys local food? *Journal of Food Distribution Research*, 37(3), 1-11. Available at: <http://ageconsearch.umn.edu/bitstream/7064/2/37030001.pdf>



**Table 4.1. Demographic Characteristics of Respondents (n=40)**

Demographic characteristics		n	% <sup>a</sup>
Age	19-39 years	19	47.5
	40-greater than 61 years	21	52.5
Gender	Male	12	33.3
	Female	24	66.7
Job designation	Owner	3	7.5
	General Manager	11	27.5
	F&B Director	4	10.0
	F&B Manager	0	0
	Manager	12	30.0
	Supervisor (Foodservice)	2	5.0
	Full-time employee	7	17.5
	Part-time employee	1	2.5
Ownership	Other		
	Independently-owned	25	64.1
	Corporate chain	14	35.9
Hotel category	Other	0	0
	Five and Four star	16	41.0
	Three, Two, and One star	23	59.0
County	Dallas	1	2.6
	Polk	6	15.4
	Pottawattamie	15	38.5
	Black Hawk	6	15.4
	Dubuque	11	28.2
On-site foodservice	Fine dining restaurant	1	2.5
	Casual dining restaurant	7	17.5
	Fast food restaurant	0	0
	Buffet service	7	17.5
	Room service	5	12.5
	Bar	7	17.5
	Snack Bar	5	12.5
	Complimentary breakfast only	33	82.5
	Vending machine(s)	17	42.5
	Other	4	10.0

<sup>a</sup> Percent is greater than 100, as respondents selected all that applied; thus, multiple responses.

**Table 4.2. Attitudes toward Purchasing Behavior of Local Foods (n=40)**

<b>Factor</b>	<b>Mean<sup>a</sup></b>	<b>SD</b>
<b>Attitudes (<math>\alpha = 0.77</math>)</b>		
When compared to foods from conventional sources, local foods are more expensive.	5.79	1.19
When compared to foods from conventional sources, foods are more fresh.	5.78	1.00
Purchasing local foods helps local economies.	5.71	1.17
Purchasing local foods are challenging because of the seasonal availability of products. <sup>R</sup>	5.65	1.15
When compared to foods from conventional sources, local foods are more nutritious.	5.60	1.09
Purchasing local foods helps reduce gas emission/ carbon footprint.	5.43	1.34
When compared to foods from conventional sources, local foods have more preparation hours. <sup>R</sup>	5.08	1.17
Local foods cannot be purchased in whole quantities. <sup>R</sup>	5.00	1.52
When compared to foods from conventional sources, local foods are more convenient.	4.97	1.76
When compared to foods from conventional sources, local foods have more inputs <sup>c</sup> to buy. <sup>R</sup>	4.89	1.37
When compared to foods from conventional sources, local foods have more safety issues. <sup>R</sup>	4.84	1.41
Lack of refund policies makes it difficult to purchase local foods. <sup>R</sup>	4.82	1.82
<b>Mean</b>	<b>5.32</b>	<b>0.73</b>
<b>SN (<math>\alpha = 0.91</math>)</b>		
My customers expect me to serve them more local foods.	4.43	1.66
I feel pressure from my competitors to include more local foods in my foodservice operations.	4.36	1.72
My staff expects I will buy more local foods for this foodservice establishment.	4.26	1.68
I feel social pressure to support local food vendors and the local economy.	4.26	1.68
<b>Mean</b>	<b>4.35</b>	<b>1.48</b>
<b>PBC (<math>\alpha = 0.76</math>)</b>		
I am confident that by purchasing local foods, I can help the local economy.	4.75	1.55
The decision to purchase local foods for this operation is beyond my control. <sup>R</sup>	4.70	1.74
I do not have the time or resources to visit local food vendors.	4.45	1.71
I am confident that if I want, I could serve local foods to improve customer satisfaction.	4.23	1.59
I am confident that I can overcome challenges associated with purchasing local foods.	4.08	1.54
<b>Mean</b>	<b>4.43</b>	<b>1.18</b>

**Table 4.2. Continued.**

<b>BI (<math>\alpha = 0.91</math>)</b>		
I will purchase more local foods, if it is cost effective.	5.05	1.62
I am willing to purchase local foods, if I can receive product of consistent quality.	4.82	1.68
I am willing to buy foods, if there is a flexible return policy.	4.64	1.71
I will purchase local foods, if there is a single point/source for purchasing.	4.36	1.56
I intend to purchase local foods, if producers of local foods contact me.	4.10	1.73
I will make an effort to purchase local foods.	3.92	1.77
<b>Mean</b>	<b>4.48</b>	<b>1.40</b>

<sup>a</sup> Scale for statements: 1=strongly disagree; 2=disagree; 3=slightly disagree; 4=neutral; 5=slightly agree; 6=agree; 7=strongly agree.

<sup>b</sup> Cronbach's alpha based on standardized items.

<sup>c</sup> inputs: time or number of vendors.

*Note.* Attitudes= attitudes towards purchasing local foods; SN= subjective norms towards purchasing local foods; PBC= perceived behavioral control towards purchasing local foods; BI= behavioral intention.

<sup>R</sup> Reverse coded items.

**Table 4.3. Correlations between Attitudes, SN, PBC, and BI (n=40)**

Measure	Attitudes	SN	PBC	BI
Attitudes	1.00			
SN	0.53*	1.00		
PBC	0.35*	0.27*	1.00	
BI	0.30*	0.33*	0.64*	1.00

*Note.* Attitudes= attitudes towards purchasing local foods; SN= subjective norms towards purchasing local foods; PBC= perceived behavioral control towards purchasing local foods; BI= behavioral intention.

\* Correlation is significant at  $*p < 0.05$ .

**Table 4.4. t-test of Types of Hotels and Attitude, SN, and PBC (n=40)**

Measure	Types of hotels	Mean	t	p-value
Attitudes	Full service (n=16)	5.41	0.79	0.43
	Limited service (n=24)	5.22		
SN	Full service (n=16)	4.64	1.22	0.23
	Limited service (n=24)	4.04		
PBC	Full service (n=16)	4.90	2.14	0.04*
	Limited service (n=24)	4.13		

*Note.* Attitudes= attitudes towards purchasing local foods; SN= subjective norms towards purchasing local foods; PBC= perceived behavioral control towards purchasing local foods.

*Note.* Significant at  $*p < 0.05$ .

Figure 1. Themes and Categories from Phase 1

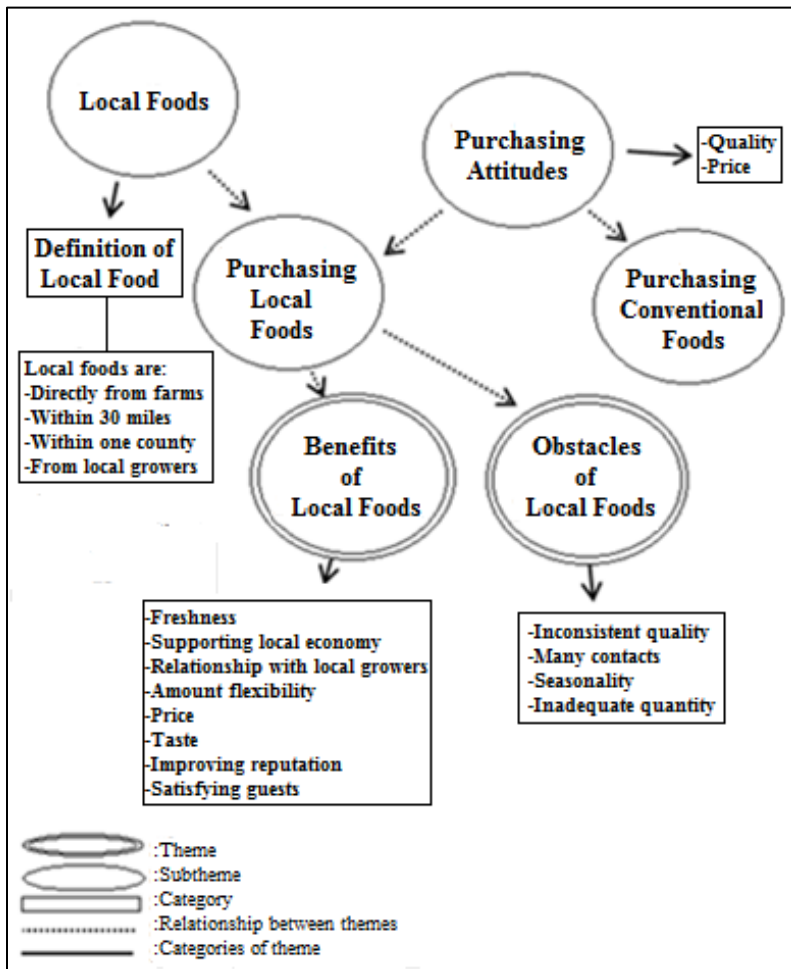
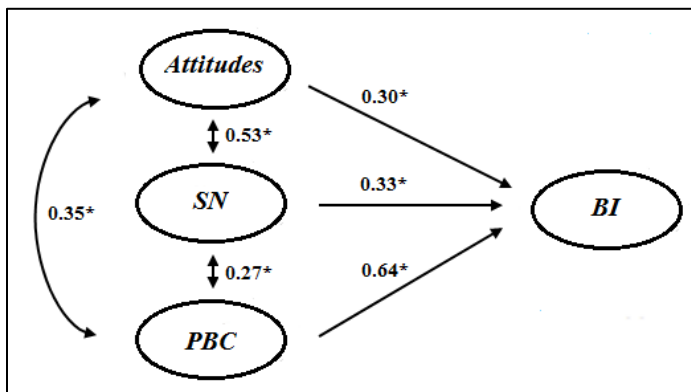


Figure 2. The correlations between Attitudes, Subjective Norms, Perceived Behavior Control with Behavioral Intention



Note. Significant at \* $p < 0.05$ .

## CHAPTER 5. GENERAL CONCLUSIONS

The purpose of this study was to explore hotel industry decision makers' perceptions of the benefits and challenges of purchasing locally-produced foods in the Iowa hotel industry. To accomplish this goal the theoretical framework of TpB was used. This study aimed to show how decision makers' *Attitudes*, *SN*, and *PBC* could influence *BI* to purchase local foods. In this study, local food was defined as locally-grown (within 200 miles) or produced agricultural food products purchased directly from producers through various outlets, including farmers' markets, CSA, "pick-your-own" farms, internet marketing, and niche markets. This definition of local food was used for interviews and quantitative surveys. This chapter consists of summary of the results, conclusions, limitations, and recommendations for future study.

### Summary of Results

This study was conducted in two phases—qualitative (interviews) and quantitative (paper-based questionnaires). For the qualitative phase, face-to-face interviews were conducted with decision makers of full service hotels (n=2) and limited service hotels (n=2) in Central Iowa. Information from the interviews was used to construct the questionnaire for Phase 2 along with an extensive review of literature. Benefits of purchasing local foods identified were: quality, taste, freshness, helping local economy, improving hotel's reputation, competitive price, satisfying guest requests, and building working relationships with local producers. On the other hand, corporate policies/restrictions, limited budgets, lack of information of local food vendors, lack of available quantity, and seasonality were identified as challenges for purchasing local foods.

In the quantitative phase, questionnaires were mailed to 209 hotels in five Iowa counties, where local foods initiatives are prominent. Forty completed questionnaires from 16 full service hotels and 24 limited service hotels were returned (19.1%). Most respondents (90%) were aware of local foods but only 22.5% were currently purchasing local foods for their establishments. Based on the theoretical framework of TpB, this study examined the role of attitudes *Attitudes*, *SN*, and *PBC* on decision makers' *BI* of purchasing local foods. Statistically significant correlations were observed between *Attitudes*, *SN*, *PBC*, and *BI*. However, *PBC* was the most correlated with *BI*, Decision makers' *PBC* was shown as an important predictor of *BI* to purchase local foods. t-tests comparisons between limited service and full service hotels showed that *PBC* significantly influenced *BI* of decision makers in full service hotels.

### Conclusions

This study examined decision makers' perceptions of the benefits and challenges for purchasing locally-produced foods in the Iowa hotel industry. Respondents in this study perceived local food use to be beneficial to their businesses but most participants did not purchase local foods due to challenges with procurement and lack of information among other challenges. Using the theoretical framework for TpB, *PBC* was found to be a significant indicator of *BI* than *Attitudes* and *SN*. Results from this study indicated that decision makers in the hotels were willing to purchase local foods if they had sufficient information and if there were efforts from local producers to reach out to decision makers in hotels. Local producers can utilize the results of this study to develop strategies to reach out to this this sector of the hospitality industry and earn benefits by serving this new clientele.

### Limitations

There are some limitations recognized in this study. The results for this study were based on self-reported data, which is subject to respondent bias. This study was designed to conduct a survey with decision makers in hotel industry however, few (20%) full-time employees or part-time employees completed the questionnaire but their responses were included in this study because they were responsible for purchasing food in their establishments. Future studies could collect information only from major decision makers in hotels to determine their perceptions of local food use and needs. A major challenge with this study was the lack of participation, however the response rate achieved in this study was typical for this sector of the hospitality industry. This study was conducted in Iowa, hence the results cannot be generalized to hotel industry decision makers' in other parts of the United States.

### Future Research

This study investigated the perceptions of benefits and challenges of hotel industry decision makers 'of purchasing local foods. This study collected data using TpB as the theoretical framework; future studies can use a qualitative approach that can yield a deeper understanding of the perceptions of benefits and challenges of hotel industry decision makers. Future studies can explore ways in which limited service hotels could improve purchasing intentions. Additionally, future studies can investigate local foods purchasing behaviors based on hotel ratings (five-star, four-star). Similar to studies conducted by Sharma et al. (2009) and Ortiz (2010), customer willingness to pay more for hotel services products from local producers can also be examined. The sample in this study was smaller, future studies can increase participation by providing participant incentive to all participants.

## REFERENCES

- Ajzen, I. (1988). *Attitudes, Personality, and Behavior*. Chicago, IL: The Dorsey Press.
- Ajzen, I. (1996). *The directive influence of attitudes on behavior*. In P. Gollwitzer & J. A. Bargh (Eds.), *Psychology of action* (pp.385-403). New York: Guilford.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52,27-58. doi:10.1146/annurev.psych.52.1.27
- American Hotel &Lodging Association [AH&LA]. (2011<sup>a</sup>). *2011 Lodging Industry Profile*. Retrieved 2011, <http://www.ahla.com/content.aspx?id=32567>
- American Hotel &Lodging Association [AH&LA]. (2011<sup>b</sup>). *Lodging industry: 2009 state overview*. Retrieved from [http://www.ahla.com/uploadedFiles/AHLA/government\\_affairs/State\\_Fact\\_Sheets/Iowa.pdf](http://www.ahla.com/uploadedFiles/AHLA/government_affairs/State_Fact_Sheets/Iowa.pdf)
- Armitage, C. J., & Christian, J. (2003). From attitudes to behavior: Basic and applied research on the theory of planned behaviour. *Current Psychology*, 22(3), 187-195. doi:10.1007/s12144-0031015-5
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education*. Belmont, CA: Wadsworth.
- Bardi, J. A. (2010). *Hotel Front Office Management*. Hoboken, NJ: John Wiley & Sons, Inc.
- Basit, T. N. (2003). Manual or electronic? the role of coding in qualitative data analysis. *Educational Research*, 2, 143-154. doi:10.1080/0013188032000133548
- Brown, C. (2003). Consumers' preferences for locally produced food: A study in southeast Missouri. *American Journal of Alternative Agriculture*, 18, pp 213-224 doi:10.1079/AJAA200353
- Brown, E. A. (2008). *Dimensions of transformational leadership and relationship with employee performance in hotel front desk staff*. (Master's thesis). Iowa State University, Ames, IA.
- Casselman, A. L. (2010). *Local foods movement in the Iowa catering industry*. (Master's thesis). Iowa State University, Ames, IA.
- Conner, M., Norman, P., & Bell, R. (2002). The theory of planned behavior and healthy eating. *Health Psychology*, 21 (2), 194-201. doi:10.1037//0278-6133.21.2.194



- Curtis, K., & Cowee, M. (2009). Direct marketing local food to chefs: Chef preferences and perceived obstacles. *Journal of Food Distribution Research*, 40(2), 26-36. Available at <http://purl.umn.edu/99784>
- Dillman, D. A. (2007). *Mail and Internet Surveys, the Tailored Design Method*. Danvers, MA: John Wiley & Sons, Inc.
- Feenstra, G. (2002). Creating space for sustainable food systems: Lessons from the field. *Agriculture and Human Values*, 19, 99–106. doi: 10.1023/A:1016095421310
- Gao, G., and Bergefurd, B. (1998). Culinary Herbs as Alternative Cash Crops for Small Scale Farmers in Southern Ohio. *Journal of Extension* 36 (6), Article 6RIB1. Available at: <http://www.joe.org/joe/1998december/rb1.html>.
- Gregoire, M. B., Arendt, S. W., & Strohbahn, C. H. (2005). Iowa producers' perceived benefits and obstacles in marketing to local restaurants and institutional foodservice operations. *Journal of Extension*, [On-line], 43(1) Article 1RIB1. Available at: <http://www.joe.org/joe/2005february/rb1.php>
- Gregoire, M. B., Strohbahn, C., Huss, J., Huber, G., Karp, R., & Klien, S. (2000). *Local food connections: From farms to schools*. (Pamphlet #: PM1853A). Ames, IA: Iowa State University Extension. Available at: <http://www.extension.iastate.edu/Publications/PM1853A.pdf>
- Hair Jr., F., Anferson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis with readings* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Hebert, D. (1997). Limited-service headed for a curve? *Hotel & Motel Management*, 212 (1), 66-68.
- Higley, J., & Frabotta, D. (2000). When “how much?” is not enough. *Hotel & Motel Management*, 215(12), 31-33.
- Institute of Agriculture and Natural Resources. (2003). *Approaching foodservice establishments with locally grown products*. Lincoln, NE: Food Processing Center, University of Nebraska. Retrieved from <http://www.foodmap.unl.edu>
- Inwood, S. M., Sharp, J. S., Moore, R. H., & Stinner, D. H. (2009). Restaurants, chefs and local foods: insights drawn from application of a diffusion of innovation framework. *Agriculture and Human Values*, 26 (3), 177-191. doi:10.1007/s10460-008-9165-6
- Iowa Department of Agriculture [IDA]. (2012). *Division of soil conservation*. Retrieved from <http://www.iowaagriculture.gov/soilConservation.asp>

- Kaiser, F. G., Schultz, P.W., & Scheuthle, H. (2007). The theory of planned behavior without compatibility? beyond method bias and trivial associations. *Journal of Applied Social Psychology, 37* (7), 1522-1544. doi:10.1111/j.1599-1816.2007.00225.x
- Leopold Center for Sustainable Agriculture. (2011, January). *Local food in Iowa: Increased opportunities for economic growth* Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2011-01-local-foods-iowa-increased-opportunities-economic-growth.pdf>
- Liebman, M., Kirschenmann, F., Pirog, R., & Dewitt, J. (2008). Sustainable agriculture in the United States: Maturation and new directions. Ames: IA, *Leopold center*, Iowa State University.
- Local Food and Farm Program [LF&FP]. (2012). Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2012-01-local-food-and-farm-program-preliminary-report.pdf>
- Lowe, K. D., & Nicholas, E. (1997). Chaos in a crowded market. *Restaurant and Institutions, 64*-117.
- Loureiro, M., & Umberger, W. J. (2005). Assessing consumer preferences for country-of-origin labeling. *Journal of Agricultural and Applied Economics, 37*(1), 49-63. Available at: <http://www.saea.org/jaae/jaae.htm>
- Lyson, T. A. (1999). From production to development: Moving toward a civic agriculture in the United States. *Paper presented at the annual meetings of the Rural Sociological Society*, August 4–8, 1999, Chicago, Illinois.
- Maier, T. A. (in press, 2012). Hospitality industry revenue management performance modeling: Uncovering issues associated with inconsistencies in price parity across multiple distribution channels in the US hotel market. *International Journal of Revenue Management*. Retrieved from [http://works.bepress.com/thomas\\_maier/4/](http://works.bepress.com/thomas_maier/4/)
- Mandelbaum, R. (2000). The changing role of hotel F&B. Retrieved from [http://www.hotel-online.com/News/PR2001\\_1st/Jan01\\_F&BRoles.html](http://www.hotel-online.com/News/PR2001_1st/Jan01_F&BRoles.html)
- Mandelbaum, R. (2011). *Hotel Food and Beverage Locals Up Lounges Down*. PKF Consulting USA. Retrieved from [http://www.pkfc.com/en/pkfhome/FreeStuff/IndustryReports/IR2011\\_06A.aspx](http://www.pkfc.com/en/pkfhome/FreeStuff/IndustryReports/IR2011_06A.aspx)
- McCracken, G. (1988). *The Long Interview* (Sage University Paper Series on Qualitative Research Methods, No.13). Newbury Park, CA: Sage.

- Montri, D. N., Kelley, K. M., & Sanchez, E. S. (2006). Direct Marketing Edamame (Glycine max [L.] Merrill) to Professional Chefs. *Journal of Extension* 44 (1), Article 1RIB4. Available at: <http://www.joe.org/joe/2006february/rb4.shtml>
- Murphy, J., & Smith, S. (2009). Chefs and suppliers: An exploratory look at supply chain issues in an upscale restaurant alliance. *International Journal of Hospitality Management*, 28, 212-220. doi:10.1016/j.ijhm.2008.07.003
- National Restaurant Association [NRA]. (2011). *Hottest restaurant menus trends in 2012 include health kids' meals and locally sourced ingredients*. Retrieved December 8, 2011, from [http://www.restaurant.org/pressroom/social-media-releases/release/?page=social\\_media\\_whats\\_hot\\_2012.cfm](http://www.restaurant.org/pressroom/social-media-releases/release/?page=social_media_whats_hot_2012.cfm)
- Nebel, E., Braunlich, C., & Zhang, Y. (1994). Career paths in American luxury hotels: Hotel food and beverage directors. *International Journal of Contemporary Hospitality Management*, 6(6), 3-9. doi:10.1108/095961194100704495
- Nurse, G., Onozaka, Y., & McFadden, D. T. (2008). *Understanding the connections between consumer motivations and buying behavior: The case of the local food system movement*. Paper presented at the AAEA annual meeting, Orlando Florida, 27–29 July 2008. Available at: [http://ageconsearch.umn.edu/bitstream/56494/2/SAEApaper\\_final\\_Nurse.pdf](http://ageconsearch.umn.edu/bitstream/56494/2/SAEApaper_final_Nurse.pdf)
- Onozaka, Y., Nurse, G., & McFadden, D. T. (2010). *Local food consumers: how motivations and perceptions translate to buying behavior*. Choices: The Magazine of Food, Farm and Resource Issues. 1st quarter 2010.[Online magazine]. Retrieved from <http://www.farmdoc.illinois.edu/policy/choices/20101/2010103/2010103.pdf>
- Ortiz, A. (2010). *Customers' willingness to pay premium for locally sourced menu items*. (Master's thesis). Iowa State University, Ames, IA.
- Paloviita, A. (2010). Consumers' sustainability perceptions of the supply chain of locally produced food. *Sustainability*, 2, 1492-1509. doi: 10.3390/su2061492
- Pilling, V., Brannon, L., Shanklin, C., Howells, A., & Robert, K. (2008). Identifying specific beliefs to target to improve restaurant employee's intentions for performing three important food safety behaviors. *Journal of the American Dietetic Association*, 108 (6), 991-997. Available at: <http://dx.doi.org/10.1016/j.jada.2008.03.014>
- Pirog, R., & Benjamin, A. (2003). *Checking the food odometer: Comparing food miles for local versus conventional produce sales to Iowa institutions*. Leopold Center for Sustainable Agriculture. Retrieved from [http://www.leopold.iastate.edu/pubs/staff/files/food\\_travel072103.pdf](http://www.leopold.iastate.edu/pubs/staff/files/food_travel072103.pdf)

- Pirog, R., & McCann, N. (2009). *Is local food more expensive? A consumer price perspective on local and non-local foods purchased in Iowa*. Leopold Center, Iowa State University, Ames, Iowa.
- Pouta, E. & Rekola, M. (2001). The theory of planned behavior in predicting willingness to pay for abatement of forest regeneration. *Society and Natural Resources*, 14, 93-106. doi:10.1080/089419201300000517
- Riley, M., & Jauncey, S. (1990). Examining structure in decision making in hotels. *International Journal of Contemporary Hospitality Management*, 2 (3), 11-15. doi:10.1108/09596119010005491
- Robinson, R., & Smith, C. (2002). Psychosocial and demographic variables associated with consumer intention to purchase sustainably produced foods as defined by the Midwest Food Alliance. *Journal of Nutrition Education and Behavior*, 34(6), 316-325. Available at: [http://dx.doi.org/10.1016/S1499-4046\(06\)60114-0](http://dx.doi.org/10.1016/S1499-4046(06)60114-0)
- Ryu, K., & Jang, S. (2006). Intention to experience local cuisine in a travel destination: The modified theory of reasonable action. *Journal of Hospitality and Tourism Research*, 30 (4), 507–516. doi:10.1177/1096348006287163
- Schneider, M. L., Francis, C. A. (2005). Marketing locally produced foods: Consumer and farmer opinions in Washington County, Nebraska. *Renewable Agriculture and Food Systems*, 20(4), 252-260.
- Sharma, A., Strohbahn, C. H., & Gregoire, M. B. (2008). Assessing costs of using local foods in independent restaurants. *Journal of Foodservice Business Research*, 12 (3), 55-71. doi:10.1080/15378020802672089
- Sharma, A., Strohbahn, C. H., & Gregoire, M. B. (2009). Assessing costs of using local foods in independent restaurants. *Journal of Foodservice Business Research*, 12 (1), 55-71. doi:10.1080/15378020802672089
- Sheeran, P., Orbell, S., & Trafimow, D. (1999). Does the temporal stability of behavioral intentions moderate intention-behavior and past behavior-future behavior relations? *Personality and Social Psychology Bulletin*, 25, 721-730. doi:10.1177/0146167299025006007
- Smith Travel Research [STR]. (2003). *The Host Study 2002: Hotel Operating Statistics*. Hendersonville, TN: Smith Travel Research.
- Story County Planning and Zoning Department. (2008, September). *Story county local food system* Retrieved from [http://www.farmlandinfo.org/documents/37280/Story\\_County\\_Food\\_System.pdf](http://www.farmlandinfo.org/documents/37280/Story_County_Food_System.pdf)

- Sparks, P., & Shepard, R. (1992). Self- Identity and the theory of planned behavior: Assessing the role of self-identification with “green consumerism”. *Social Psychology Quarterly*, 55, 388-399. Available at: <http://www.jstor.org/stable/2786955>
- Starr, A., Card, A., Benepe, C., Auld, G., Lamm, D., Smith, K., & Wilken, K. (2003). Sustaining local agriculture: Barriers and opportunities to direct marketing between farms and restaurants in Colorado. *Agriculture and Human Values*, 20, 301–21. doi:10.1023/A:1026169122326
- Strohbehn, C., & Gregoire, M. (2002). *Institutional and commercial foodservice buyers' perceptions of benefits and obstacles to purchase of locally grown and processed foods* (Project No. 2001-38). Ames, Iowa: Leopold Center for Sustainable Agriculture. Available at: <http://www.extension.iastate.edu/NR/rdonlyres/20C4D693-445E-4044-AA0A-B6E3AE3F64AE/61394/FarmtoSchoolsReport.pdf>
- Strohbehn, C., & Gregoire, M. (2003). Case studies of local food purchasing by central Iowa restaurants and institutions. *Foodservice Research International*, 14(1), 53-64. doi:10.1111/j.1745-4506.2003.tb00177.x
- Strohbehn, C. H., & Gregoire, M. B. (2005). Local foods: From farm to college and university foodservice. *The Journal of Foodservice Management and Education*, 1, 1-20. Retrieved from [http://www.fsme.org/journal\\_2005.html](http://www.fsme.org/journal_2005.html)
- U. S. Census Bureau [USCB]. (2011). *United States Accommodation and Food Services* Retrieved from <http://censtats.census.gov/cgi-bin/cbpnaic/cbpdetl.pl>
- U. S. Department of Agriculture, National Agricultural Library [USDA]. (2009). *Community Supported Agriculture* Retrieved December, 2009, from <http://www.nal.usda.gov/afsic/pubs/csa/csa.shtml>
- U. S. Department of Agriculture [USDA]. (2011<sup>a</sup>). *Mission statement: USDA launches 'Know Your Farmer, Know Your Food' initiative*. Retrieved from [http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF\\_MISSION](http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_MISSION)
- U.S. Department of Agriculture [USDA]. (2011<sup>b</sup>). *New USDA rule encourages the purchase of local agricultural products for critical nutrition assistance programs*. Retrieved April 26<sup>th</sup> 2011, from <http://www.fns.usda.gov/cga/pressreleases/2011/0180.htm>.
- Wells, B., Gradwell, S., & Yoder, R. (1999). Growing food, growing community: Community supported agriculture in rural Iowa. *Community Development Journal*, 34, 38-46. doi:10.1093/cdj.34.1.38

- Wilkins, J. L., Bokaer-Smith, J., & Hilchey, D. (1996). *Local foods and local agriculture: A survey of attitudes among northeastern consumers*. Ithaca, NY: Cornell University, Division of Nutritional Sciences.
- York, V., Brannon, L. A., Roberts, K. R., Shanklin, C. W., & Howells, A. D. (2009). Using the theory of planned behavior to elicit restaurant employee beliefs about food safety: Using surveys versus focus groups. *Journal of Foodservice Business Research*, 12 (2), 180-197. doi:10.1080/15378020902910777
- Zepeda, L., & Leviten-Reid, C. (2004). Consumers views on local food. *Journal of Food Distribution Research*, 35(3), 1–6. Available at: <http://ageconsearch.umn.edu/bitstream/27554/1/35030001.pdf>
- Zepeda, L., & Li, J. (2006). Who buys local food? *Journal of Food Distribution Research*, 37(3), 1-11. Available at: <http://ageconsearch.umn.edu/bitstream/7064/2/37030001.pdf>



## Appendix A. Human Subjects Approval

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

Institutional Review Board  
Office for Responsible Research  
Vice President for Research  
1138 Pearson Hall  
Ames, Iowa 50011-2207  
515 294-4566  
FAX 515 294-4267

**Date:** 1/9/2012

**To:** Sangwook Kang  
31 MacKay Hall

**CC:** Dr. Lakshman Rajagopal  
10 MacKay Hall

**From:** Office for Responsible Research

**Title:** Perceptions of Benefits and Challenges of Purchasing Local Foods in the Iowa Hotel Industry

**IRB ID:** 11-608

**Study Review Date:** 1/4/2012

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
  - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
  - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as described in the IRB application.** Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

**Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form.** A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption**, even if you conduct a study in the future that is exactly like this study.

## Appendix B. Interview Questions- Phase 1

### Interview Questions

1. **Have you heard about local foods?**
  - a. Yes/No
    - i. If yes, what is your own definition about local food?
  
2. **Do you purchase locally produced food items for your foodservice?**
  - a. Yes/ No
    - i. If yes, why? \_\_\_\_\_
    - ii. If no, why? \_\_\_\_\_
  
3. **What types of food are you purchasing (from local vendors)?**

Fresh Produce     Dairy  
 Meats                 Seafood                 Others (Please specify)\_\_\_\_\_
  
4. **What types of food are you purchasing (from conventional vendors)?**

Fresh Produce     Dairy  
 Meats                 Seafood                 Others (Please specify)\_\_\_\_\_
  
5. **How many vendors do you purchase food from?**

Only 1 vendor     2-4 vendors  
 5-7 vendors         7-9 vendors     More than 10 vendors
  
6. **How many of those are local food vendors? And, how many of those are conventional vendors?**

Local food vendors: \_\_\_\_\_ Conventional vendors: \_\_\_\_\_
  
7. **What do you perceive as important when selecting foods for your property?**
  
8. **Please provide examples of satisfactory/ positive experiences you have had when you purchased food items from local sources.**
  
9. **Please provide examples of satisfactory/ positive experiences you have had when you purchased food items from conventional sources.**
  
10. **Please provide examples of unsatisfactory experiences you have had when you purchased food items from local sources?**



- 11. Please provide examples of unsatisfactory experiences you have had when you purchased food items from conventional sources?**
- 12. What do you perceive to be the benefits to your foodservice establishment of purchasing locally produced foods?**
- 13. What do you perceive as challenges to your foodservice establishment of purchasing locally produced foods?**
- 14. What according to you would encourage you to purchase locally produced foods?**
- 15. Would you like to add anything else about purchasing local foods?**

### **Demographic Characteristics**

Please answer each of the following questions about you and your establishment. This information will be used for research purposes only.

**1. Age**

- 19- 25 years       26-32 years       33-39 years       40-46 years  
 47-53 years       54-60 years       more than 61 years

**2. Gender**     Female     Male

**3. What is your job designation? (Select all that apply)**

- Owner                       General Manager       F&B Director  
 F&B Manager               Manager                   Supervisor  
 Full-time employee       Part-time employee     Other (please specify)\_\_\_\_\_

**4. How long have you been employed in your current position?**

\_\_\_\_\_ months(s) or \_\_\_\_\_ year(s)

**5. What are your job responsibilities?**

\_\_\_\_\_

**6. Which of the following categories best describes does your establishment? (Select one)**

- Luxury                                       Midscale with F&B  
 Upper upscale                               Midscale without F&B  
 Upscale                                       Economy

**7. Which of the following applies to your establishment? (Select one)**

- Independently owned (number)     Corporate chain  
 Other \_\_\_\_\_

**8. My establishment is located in.**

- Dallas county                       Story county

**9. Does your establishment have foodservice operations (on-site)?**     Yes     No

**10. What types of foodservice operations do you operate in your establishment? (Select all that apply)**

- Fine dining restaurant                   Bar  
 Casual dining restaurant               Snack bar (in room)  
 Fast food restaurant                       Complimentary breakfast only  
 Buffet service                               Vending machine(s)  
 Room service                               Other \_\_\_\_\_

### **Appendix C. Telephone Script- Phase 1**

Hello, my name is Sangwook Kang and I am a Master's student in the Apparel, Events, and Hospitality Management at Iowa State University. I am calling to speak with you regarding participation in a research project for my thesis. Your participation will entail an approximate 30 to 40 minutes of interview to be conducted at your business location. Data gathered will be about your business's food purchasing decisions and use of local foods.

Scheduling for the interview is anticipated to be between March 1, 2012 and March 25, 2012. All information will be completely confidential and will only serve the purpose of completing the research project. Participation is completely voluntary and not monetary compensation will be received. However, I will provide you with a copy of our results which might help you identify local food producers who you can contact for purchasing food for your property. If you are willing to participate in this study and I would like to schedule a time for the interview at this time.

## Appendix D. Informed Consent Document- Phase 1

**Title of Study:** Perceptions of Benefits and Challenges of Purchasing Local Foods in the Iowa Hotel Industry

**Investigators:** Sangwook Kang, Masters Student; Lakshman Rajagopal, PhD.

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to ask questions at any time.

### INTRODUCTION

The purpose of this study is to examine Iowa hotel industry decision makers' perceptions of benefits and challenges of purchasing locally produced food. You are being invited to participate in this study because you are an individual representing or operating a hotel in the state of Iowa OR you are a manager or decision maker for purchasing food for a hotel in Iowa. You should not participate if: 1) you are not 18 years of age or older; 2) the location of your property is not in the state of Iowa; and 3) if you are not involved in making purchasing decisions related to food in your hotel.

### DESCRIPTION OF PROCEDURES

If you agree to participate, you will be asked to participate in a face-to-face interview. The following type of questions will be asked:

1. What is your definition about local food to your establishment?
2. What types of food are you purchasing from local vendors?
3. What do you perceive as important when selecting foods for your property?
4. What do you perceive to be the benefits to your foodservice operation of purchasing locally produced foods?
5. What do you perceive as challenges to your foodservice establishment of purchasing locally produced foods?
6. What according to you would encourage you to purchase locally produced foods?

Each face-to-face interview along with interview questions will last for 30-40 minutes. Each interview will be audiotaped. Prior to starting the face-to-face interview, the interviewee will complete a consent form. You will be contacted at two times during this study: 1) the first contact by telephone will be made to inform you about the purpose of this study and obtain your commitment for participation; and 2) the second contact will be made for the face-to-face interview and a consent form will be provided to you before the interview.

### RISKS

There are no foreseeable risks at this time from participating in this study.

### BENEFITS

If you decide to participate in this study there may be no direct benefits to you. It is expected that the information gained in this study will benefit society by helping provide insights to local food producers about the needs of the Iowa hotel industry and ways in which local producers can serve this demographic.

**COSTS AND COMPENSATION**

You will not have any costs from participating in this study. You will not be compensated for participating in this study. A copy of our results which might help you identify local food producers who you can contact for purchasing food for your property.

**PARTICIPANT RIGHTS**

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. If you decide to not participate in the study or leave the study early, it will not result in any penalty or loss of benefits to which you are otherwise entitled. You can skip any questions that you do not wish to answer.

**CONFIDENTIALITY**

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy your records for quality assurance and data analysis. These records may contain private information.

The following steps will be taken to maintain confidentiality:

- Interview responses will remain completely anonymous and no identifiers be used.
- Only the identified researchers will have access to research records.
- Research records will be kept in a locked office.

**QUESTIONS OR PROBLEMS**

You are encouraged to ask questions at any time during this study.

- For further information about the study contact: Sangwook Kang 515-509-0971/  
Lakshman Rajagopal 515-294-9740.

If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

\*\*\*\*\*

**PARTICIPANT SIGNATURE**

Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document, and that your questions have been satisfactorily answered. You will receive a copy of the written informed consent prior to your participation in the study.

Participant’s Name (printed) \_\_\_\_\_

\_\_\_\_\_  
(Participant’s Signature)

\_\_\_\_\_  
(Date)



## Appendix E. Survey Questionnaire- Phase 2

### Perceptions of Benefits and Challenges of Purchasing Local Foods in the Iowa Hotel Industry (IRB#: 11-608)

Dear Participant,

Today there is much consumer interest in eating locally produced food. But what are the benefits and challenges of purchasing these foods? The Hospitality Management program at Iowa State University seeks to assist food managers in Iowa hotels by learning more about the purchasing of locally produced food.

This questionnaire will take approximately 5-10 minutes to complete. Your participation is voluntary; refusal to participate will involve no penalty and you may discontinue participation at any time without penalty. Your responses will be kept completely confidential and no information will be shared. Please carefully read each question and do not leave any items blank. **If you complete and return this questionnaire you will be included in a drawing to receive one of five \$10 Wal-Mart gift certificates.**

Should you have any questions about this study, please contact the persons listed below.

Thank you for your time and assistance.

Sincerely,

**Sangwook Kang**

Masters Student  
31 MacKay  
Iowa State University Ames, IA 50010  
Phone: 515-509-0971  
E-mail: sk555246@iastate.edu

**Lakshman Rajagopal, PhD**

Assistant Professor in Hospitality Management  
10 MacKay  
Iowa State University Ames, IA 50011  
Phone: 515-294-9740  
E-mail: lrj@iastate.edu

#### •*Instructions and Definitions*

Use the following definitions as you consider and respond to the questions:

**Local foods**: Locally grown or produced agricultural food products from within 200 miles AND purchased directly from farmers through various outlets, including farmers' markets, CSA (Community Supported Agriculture), "pick-your-own" farms, internet marketing, and niche markets

**Conventional vendors**: Suppliers which obtain and sell products regionally (multi-state) or nationally and exhibit one or more of the following characteristics: defined infrastructure, sales representatives, multiple delivery vehicles, regional or national distribution (e.g., Sysco, US Foodservice, Loffredo Fresh Produce Co.).

**Buyer**: Individual in a hotel foodservice operation that handles ordering and purchasing of necessary ingredients and supplies.

**Part 1. Local Food Use: What do you think?**

1-1	Are you aware of local foods or locally produced foods? <input type="checkbox"/> Yes <input type="checkbox"/> No
1-2	Has your establishment purchased local foods? <input type="checkbox"/> Yes and we continue to do so <input type="checkbox"/> Yes we have in past but not currently <input type="checkbox"/> Never have purchased local foods. <b>(Skip 1-3, Go to 1-4)</b>
1-3	What types of food are you purchasing from local vendors? <b>(Check all that apply)</b> <input type="checkbox"/> Fresh produce <input type="checkbox"/> Dairy <input type="checkbox"/> Other _____ <input type="checkbox"/> Meat <input type="checkbox"/> Seafood <input type="checkbox"/> None
1-4	What types of food are you purchasing from conventional vendors? <b>(Check all that apply)</b> <input type="checkbox"/> Fresh produce <input type="checkbox"/> Dairy <input type="checkbox"/> Other _____ <input type="checkbox"/> Meat <input type="checkbox"/> Seafood <input type="checkbox"/> None
1-5	How many of your current vendors are local _____ (or/and) conventional _____?

**Part 2. Read the following statements and indicate your agreement using the scale provided.**

2-1	Based on my knowledge, when compared to foods from conventional sources, <b>local foods are</b> . less fresh    1 2 3 4 5 6 7    more fresh less nutritious    1 2 3 4 5 6 7    more nutritious less expensive    1 2 3 4 5 6 7    more expensive less convenient    1 2 3 4 5 6 7    more convenient
2-2	Based on my knowledge, when compared to foods from conventional sources, <b>local foods have</b> . fewer safety issues    1 2 3 4 5 6 7    more safety issues fewer preparation hours    1 2 3 4 5 6 7    more preparation hours fewer <i>inputs</i> to buy    1 2 3 4 5 6 7    more <i>inputs</i> to buy <i>(Inputs: time or number of vendors)</i>
2-3	Purchasing local foods helps local economies. strongly disagree    1 2 3 4 5 6 7    strongly agree
2-4	Purchasing local foods helps reduce gas emissions/carbon footprint. strongly disagree    1 2 3 4 5 6 7    strongly agree
2-5	Purchasing local food is challenging because of the seasonal availability of products. strongly disagree    1 2 3 4 5 6 7    strongly agree
2-6	Local foods cannot be purchased in wholesale quantities. strongly disagree    1 2 3 4 5 6 7    strongly agree
2-7	Lack of refund policies makes it difficult to purchase local food. strongly disagree    1 2 3 4 5 6 7    strongly agree



**Part 3. Read the following statements and indicate your agreement using the scale provided.**

3-1	My staff expects that I will buy more local foods for this foodservice establishment. strongly disagree: 1 2 3 4 5 6 7 strongly agree
3-2	My customers expect me to serve them more local foods. strongly disagree: 1 2 3 4 5 6 7 strongly agree
3-3	I feel pressure from my competitors to include more local foods in my foodservice operations. strongly disagree: 1 2 3 4 5 6 7 strongly agree
3-4	I feel social pressure to support local food vendors and the local economy. Strongly disagree: 1 2 3 4 5 6 7 strongly agree

**Part 4. Read the following statement and indicate your agreement using the scale provided.**

4-1	I am confident that if I want, I could serve local foods to improve customer satisfaction. strongly disagree: 1 2 3 4 5 6 7 strongly agree
4-2	I am confident that by purchasing local foods, I can help the local economy. strongly disagree: 1 2 3 4 5 6 7 strongly agree
4-3	The decision to purchase local foods for this operation is beyond my control. strongly disagree: 1 2 3 4 5 6 7 strongly agree
4-4	I am confident that I can overcome challenges associated with purchasing local foods. strongly disagree: 1 2 3 4 5 6 7 strongly agree
4-5	I do not have the time and resources to visit local food vendors. strongly disagree: 1 2 3 4 5 6 7 strongly agree

**Part 5. Read the following statements and indicate your agreement using the scale provided.**

5-1	I will make an effort to purchase local foods. strongly disagree: 1 2 3 4 5 6 7 strongly agree
5-2	I intend to purchase local foods if producers of local foods contact me. strongly disagree: 1 2 3 4 5 6 7 strongly agree
5-3	I will purchase local foods if there is a single point/source for purchasing. strongly disagree: 1 2 3 4 5 6 7 strongly agree
5-4	I will purchase more local foods if it is cost effective. strongly disagree: 1 2 3 4 5 6 7 strongly agree
5-5	I am willing to purchase local foods if I can receive product of consistent quality. strongly disagree: 1 2 3 4 5 6 7 strongly agree
5-6	I am willing to buy local foods if there is a flexible return policy. strongly disagree: 1 2 3 4 5 6 7 strongly agree



**Part 6. Demographic Characteristics**

Answer each of the following questions about yourself. This information will be used in a summary form only.

**1. Age**

- 19- 25 years       26-32 years       33-39 years       40-46 years  
 47-53 years       54-60 years       more than 61 years

**2. Gender**  Male  Female**3. What is your job designation? (Select all that apply)**

- Owner                               General Manager               F&B Director  
 F&B Manager                       Manager                               Supervisor (Foodservice)  
 Full-time employee               Part-time employee               Other (please specify) \_\_\_\_\_

**4. How long have you been employed in your current position?**

\_\_\_\_\_ months(s) and/or \_\_\_\_\_ year(s)

**5. What are your key job responsibilities?**

\_\_\_\_\_

**6. Which of the following categories best describes your establishment? (Select one)**

- ☆☆☆☆☆ (Five Stars)               ☆☆              (Two Stars)  
 ☆☆☆☆ (Four Stars)               ☆              (One Star)  
 ☆☆☆ (Three Stars)

**7. Which of the following applies to your establishment? (Select one)**

- Independently owned       Corporate chain       Other \_\_\_\_\_

**8. In which county is your establishment located?**

- Dallas county               Polk county               Pottawattamie county  
 Black Hawk county       Dubuque county

**9. What types of foodservice does your workplace offer? (check all that apply)**

- Fine dining restaurant               Bar  
 Casual dining restaurant               Snack bar (in room)  
 Fast food restaurant               Complimentary breakfast only  
 Buffet service                               Vending machine(s)  
 Room service                               Other \_\_\_\_\_

**Thank you for your participation!  
Your input is valuable!**

Appendix F. **Reminder Postcard**

*Just a reminder...*

This is a reminder of the survey about the local foods use in your hotel.

If you have not yet had the opportunity to complete and return the survey, it would be greatly appreciated if you did so by June 10<sup>th</sup>, 2012.

Your input is important.

If you have any questions regarding the survey, please let us know.

*Sangwook Kang*  
HRIM, 31 MacKay Ames, IA 50011  
Sk555246@iastate.edu

*Lakshman Rajagopal, PhD*  
HRIM, 10 MacKay Ames, IA 50011  
lraj@iastate.edu

To.  
ADDRESS

*Thank you!*

Iowa State University  
Dept. of AESHM, 31 Mackay Hall  
Ames, IA 50011-1121

## ACKNOWLEDGEMENTS

This thesis would not have been written without the assistance of a number of people: my family, professors, and friends.

I would like to express my heartfelt appreciation and gratitude to my major professor, Dr. Rajagopal Lakshman. This work would not have been possible without his patience, guidance, humor, and support. He taught me several ways of improving knowledge and quality of life. I surely can say he is a great spiritual leader of my education and life. I deeply appreciate he accepted me as his student.

I would like to thank Dr. Catherine Strohbehn and Dr. Stephen Sapp for serving on my thesis committee and for providing guidance and support. I would like to extend a special thanks to Mr. Steve Mandernach who provided the database of hotels and motels in Polk and Dallas counties.

I also would like to thank my friends in the AESHM department, Dr. JuyYup Lee, Jewoo Kim, Jihee Choi, Kelly Mayfield, Nathan Stokes and especially Jinhyun Jun. I specially thank to my team members of Joan Bice Underwood Tearoom: Mr. Kramer, Doreene, Angie, Dr. Ju Yup Lee, Kelly Mayfield, Jinhyun Jun, and Nathan Stokes. I also thank my neighbors, Jungwook Paek, Myongwoon Lee, Mahui Hur, and Dr. Gyuil Cho, and Dr. Joongu Park for sharing lives in Ames.

Finally, I sincerely thank my family who are the reason for the joy in my life: my wife, Eon Kim and lovely daughter, Hannah!