

Final Report

Faculty Research Grant

Customer Perceived Service Quality in the Fast Food Industry

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B. Restatement of problem researched or creative activity

Our purpose was to investigate the critical factors which help to determine the expectations that consumers have about the fast food industry and their perceptions of service quality from experience. Our intention was to replicate research in other industries using the SERVQUAL instrument (Parasuraman, et al., 1988) to the fast food industry and extend the research by using multiple and longitudinal responses from participants about meals eaten at local establishments.

We chose the limited service restaurants (fast food) industry because it has become a major part of the American dining-out experience. In both 2002 and 2007, the U.S. Census Bureau (2007) reported that limited service (fast food) restaurants accounted for about 35% of all restaurant sales in the United States and that sales grew almost 30% for the fast food industry while the number of establishments for the industry surpassed the 200,000 mark. In 2007, the industry's sales surpassed the \$150 billion mark, and more than 3 million people were employed in the industry (U.S. Census Bureau 2007). Usage among average fast food consumers was reported in 2006 to be at over 17 visits per month and among heavy use consumers to be nearly one visit per day (Clarke 2006).

We have an interest in exploring: (1) the pedagogical value of this research in the fields of marketing, business management and consumer finance; (2) the differences between consumer expectations and actual experience with a fast food meal; (3) the varying expectations and experiences of both frequent and less-frequent consumers of these meals; (4) the consumer experience differences between locally-owned and chain fast food restaurants; (5) the consumer experience differences between less- and more-

healthy eaters with regard to fast food meals; and other research questions as we continue to examine the data.

C. Brief review of the research procedure utilized

In this project, we asked 508 Tech students to register at an online web page to be chosen to participate in the study. Of those 508 students, 112 completed the first online survey and indicated their willingness to participate. Each of these provided us with demographic information and general perceptions about the fast food industry. Of those 112 students, 100 were chosen to be part of the three-stage experience evaluation process. This last group were given the required information, asked to complete a short quiz to verify their continued willingness to participate in the study, and trained on the study's protocols for restaurant evaluation. Students were then asked to purchase and consume one fast food meal each of three designated weeks and then to submit both the actual register receipt as proof of purchase and the online survey about the experience. After completion of all study protocols, students were then reimbursed \$15.00 for their meal expenses.

D. Summary of findings

While we are still assessing the data, we have been able to determine that each of our research interests so far have some merit. We have successfully translated the research findings into classroom discussions of management and marketing principles, furthering student understanding of the consumer purchasing process and subsequent evaluation of that process prior to repurchasing decisions. The data also seems to

show that consumers who have healthier eating practices (more vegetables, etc.) enjoy their fast food experiences more than less-healthy eaters (more sweets, fats, etc.). This appears to be because they eat for the dining and nutritional value of the food rather than the simple desire to be full. Finally, small, locally-owned restaurants seem to be perceived as being as professional and quality-oriented as chain restaurants (McDonalds, Taco Bell, etc.), and in fact they sometimes outshine the larger competitors. Participants viewed their experiences with the locals as being more professional, pleasant and cleaner experiences than those at chains.

E. Conclusions and recommendations

This study shows that consistent and useful evaluations of limited service restaurants are possible using our methodology, and the results themselves are actually more revealing than those from previous studies using similar instruments. Our results so far have indicated that several of our research questions have validity as investigational premises, although we need to expand the sample size to refine the results for some of the questions.

We have been successful in publishing our research to date in that we have already had accepted (and presented) one pedagogical paper, and we have had another paper in small business management accepted for presentation in November. We are also exploring ways to expand the sample size of our database by using other motivational methods to reward students for participating in replicative rounds (e.g., bonus points, gift card drawings, etc.).



**2011 Fall Educators' Conference
Drury Plaza at the Arch, St. Louis
Wednesday, September 21, 2011**

		Lafayette	LaSalle	Jolliet
12:30-6:00 1:00-1:55	<p>Registration Open – Conference Hallway</p> <p>1.1 Panel – Mary Donohue The Millennial Generation: Thinking, Acting and Believing Differently Mary Donohue, Dalhousie University Molly Jensen, University of Arkansas Michael Messina, Gannon University Joe Scarpanti, West Liberty University</p>	<p>1.2 Panel – Dave Dulany Facility Tours as a Component of the Business Curriculum Tim Aurand, Northern Illinois University Dave Dulany, Aurora University Barton Jennings, Western Illinois University Mandeep Singh, Western Illinois University</p>	<p>1.3 Refereed Papers – John Cherry Building Student Professional Confidence via Conference Calling Experience Peter Kaufmann, Illinois State University Fred Langrehr, Valparaiso University Horace Melton, Illinois State University</p> <p>Collaborative Pedagogical Research on Customer Perceptions of Service Quality in the Fast Food Industry Mike Benefield, Arkansas Tech University Stephen Jones, Arkansas Tech University Kevin Mason, Arkansas Tech University</p> <p>“SWAT” Students with Academic Talent Project: A Community-Engaged Participatory Learning to Promote Marketing to Prospective Students Peter Knight, University of Wisconsin - Parkside Mike Mantion, University of Wisconsin - Parkside</p>	
2:05-3:00	<p>2.1 Panel – Deb Owens Effectively Assessing Student Skill Development Mary Conran, Temple University Matt Elbeck, Troy University - Dothan Peter Onyia, Lindenwood University Deb Owens, University of Akron</p>	<p>4.2 Exhibitor – Fred Hoyt Title TBA Mike Roche, Cengage Learning</p>	<p>2.3 Position Papers – Shawni Jackson A New Marketing Course Idea for Undergrad Marketing Students: Following your Passion Through Developing a Market Vision Susan Reid, Bishop's University</p> <p>A Student-Hands-On Approach to Developing and Executing Real World Strategic and Tactical Marketing Projects Stan Osweiler, University of Indianapolis</p> <p>Models for Undergraduate Research and Hands-On Marketing Applications in Non-classroom Settings Rob Larson, Luther College</p>	

**Collaborative Pedagogical Research on Customer Perceptions
of Service Quality in the Fast Food Industry**

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Collaborative Pedagogical Research on Customer Perceptions of Service Quality in the Fast Food Industry

ABSTRACT

Using undergraduate students as consumer subjects, this study examines consumer behavior in the fast food industry from marketing, management, and economics perspectives. Specifically, our study takes a comprehensive approach to determining both expected preferences and realized preferences, including 228 separate subject meal experiences. From a marketing perspective, this study explores how consumer's satisfaction levels can lead to customer retention and loyalty. Using the SERVQUAL dimensions of service quality, to measure customer satisfaction levels we explore management practices which can lead to customer loyalty, and thus, higher profitability. Also, from an economics perspective, this study looks at differences in consumer choices based upon price sensitivity considerations.

It is generally understood that student classroom learning is more involving and retained more effectively if practical application of the academic material is evident. To that end, we conducted an interactive study with undergraduate students designed to explore consumer behavior related to an industry for which they have germane experience: the fast food industry. Results of the study will be used in our respective marketing, management, research methods, and economics classes as primary "real world" evidence of academic learning.

The fast food industry was chosen as the focus of this research because of its significance in the American economy and because most students have personal experience with the industry, enabling them to relate to it for classroom examples and discussions. In both 2002 and 2007, the U.S. Census Bureau (2007) reported that limited service (fast food) restaurants accounted for about 35% of all restaurant sales in the United States and that sales grew almost 30% for the fast food industry while the number of establishments for the industry surpassed the 200,000 mark. In 2007, the industry's sales surpassed the \$150 billion mark, and more than 3 million people were employed in the industry (U.S. Census Bureau 2007). The limited service restaurant industry has grown to a point that there are now about 67 fast food restaurants for every 100,000 people in the U.S. In one study (Gordon & Sterrett 1999), it was estimated that between 30 and 50 percent of

all restaurants in the U.S. were of the fast food variety and that the number varied regionally. Usage among average fast food consumers was reported in 2006 to be at over 17 visits per month and among heavy use consumers to be nearly one visit per day (Clarke 2006). As a prominent industry which affords considerable student consumer behavior interaction, we felt that studying fast food eating experiences would be interesting, relevant, and practical for our students.

METHODOLOGY

To defray expenses associated with our subjects' fast food purchases, we received a \$1,500.00 university grant to subsidize \$5 towards meal expenses for up to 300 meal experiences (three meals for 100 customer subjects). We used a two stage research project which made use of a stratified selection of self-selected participants as customer respondents. In stage I, we made contact with 508 students (296 were lower classmen and 212 were upper classmen) in several different business classes taught at a mid-size university in the South and asked them if they would be willing to participate in a fast food research project. We had 112 indicate their willingness to participate. Each of these provided us with demographic information and general perceptions about the fast food industry. Among the students who participated in stage I, 51% were female, 97% dine at a fast food restaurant at least once per week and 46% have worked in a restaurant.

In addition, stage I of the study provided us with subjects' general perceptions about fast food restaurant selection criteria and general food preferences. More specifically, subjects were asked to rank the five most important criteria in their choice of a fast food restaurant (quality of food, location, service speed, price, cleanliness, quantity of food offered, atmosphere, menu variety, number of customers already there, ease of getting in and out of restaurant parking, and the number of others in the party). In addition, the subjects rated their frequency of consumption

of various food categories (deep-fried foods, salads, chicken, beef, fish, pork, vegetables, dessert, meat, carbohydrates, fats, bread, hamburgers, pizza, Mexican food, Italian food, Chinese food, and buffets).

In stage II, we selected 100 student subjects from stage I and asked them to engage in three fast food eating experiences and then provide their perceptions about the experience in an online survey. The 100 subjects were told that they would receive \$15.00 after completing all three of the eating experiences and the surveys related to each experience. Table 1 shows the survey items associated with each eating experience.

ACADEMIC BENEFITS OF THE STUDY

Although we are all College of Business faculty, we teach business principles from different academic discipline perspectives. As such, results of our study will be discussed in various classes to provide empirical evidence of underlying concepts that are part of our various disciplines. We hope and expect that students' understanding will be enhanced as they realize that all business disciplines are integrated in the "real world".

Marketing Classroom Implications

Customer retention has become a major concern for many businesses. It is widely believed that it costs far less to hold on to a customer than to acquire a new one. That is why customer retention is of vital importance to business success (Coyles and Gokey 2005). Customer retention for retailers has been found to be a function of customers' satisfaction levels, which in turn have been found to be related to customers' perceptions concerning the service quality that they received during a given transaction (Zeithaml, Berry and Parasuraman 1996).

Our study investigates critical factors which help to determine the expectations that consumers have about the fast food industry and their perceptions of service quality formed

shortly after a given fast food experience. Prior research has shown that customer satisfaction leads to higher customer loyalty (Law and Hui 2004; Onyeanon and Adalikwu 2008; Van Pham 2006) and that it leads to behavior intentions to continue using a specific fast food location (Qin and Prybutok 2008). Several models for measuring service quality have emerged in the literature. Lewis and Boom (1983) have stated that service quality is how well the service delivered matches the expectations of the consumer. Gronroos (1984) stated that consumers compare the service they expect with the perceptions of the service they receive. However, the most prominent measure of service quality comes from the SERVQUAL model presented by Parasuraman, Zeithmal and Berry (1988). Using the SERVQUAL model, service quality measures comparisons of consumers' expectations with their perceptions. We used the SERVQUAL dimensions of service quality, applied them to the fast food industry and extended the research by using multiple and longitudinal responses from participants.

In addition, our study will provide empirical evidence of how different demographic market segments vary in their consumer behavior and, thus, necessitating different strategy for marketing success. For example, in our study we found that for women, restaurant cleanliness was the most important criteria in the selection of a restaurant, whereas, for males the most important criteria was price followed by food quantity. Also, consistent with other research (Chapman 2004), we found that males spend more on a fast food purchase and are more likely to order a side dish than women and that women are more critical than males in their perceptions of service quality.

Economics and Finance Classroom Implications

From a Micro-Economics viewpoint, our study provides empirical evidence about how consumers make purchase decisions. Students are often less affluent than the general population, so we assume they may be price sensitive. But since our subjects were partially reimbursed for their dining decisions in this study, their sensitivity to price may be affected. Specifically, we believe that the flat rate compensation of \$5/meal could lead to two possible outcomes. First, because the maximum amount of reimbursement for dining experiences was set at \$5/meal, our subjects may be more price conscious and choose less expensive meals or establishments. However, second, the fact that subjects' meals were subsidized might cause them to consider their contribution to the total meal cost as their "marginal cost" allowing them to eat a more expensive meal.

To better understand how price sensitivity might impact purchase decisions, we plan to follow this study with at least two more studies. Since this study used monetary reimbursement, there was a financial incentive to participate. A study, scheduled for the upcoming fall, will use a grade incentive. We will count participation as a bonus assignment, i.e., points given toward the semester grade. Then, in the spring of next year, we will give the assignment, but give no credit for it. Therefore, even though the individual students will change, we should be able to ascertain if the incentive impacts not only the results, but also participation.

From a Personal Finance approach, we hope to use results from this study to address personal budgeting as well as good health and nutrition decisions. About two-thirds of fast food restaurant consumers are those making less than \$40,000/yr or more than \$80,000/yr (Tlapa, Miller and Washington 2010). Those making more than \$80,000 seem to have the resources to afford to eat out more often, even if that may not be the most healthy choice. We would expect

this group to be better educated and make better nutritional choices among the fast food chains and the menu items. Of concern to the implications of this study might be the other income group, those making less than \$40,000. They are probably less able to afford to eat out, but due to stereotypically expected lower levels of education, they may not make the best nutritional choices. At the grocery store, they may buy more prepared food at higher prices instead of doing the preparation and cooking themselves, saving money and eating better balanced meals.

Management Classroom Implications

Various fields of interest to management can also take advantage of the results of this study. Obviously, management can use the strategic ramifications of the study to better address strengths and weaknesses of individual firms. However, understanding the critical areas for consumers also aids executives in planning for potential competitive advantages. Additionally, human resources, employee training and other areas of study are prime for use of this type of inquiry. These results – especially in business classrooms – can emphasize to students the concept that customer satisfaction is more than a theoretical idea from textbooks.

This study also gives us the opportunity to address specific areas of interest in the management field. Within the last ten-to-fifteen years, studies have begun to explore the fields of cycle times and operations management, human resource development and product development strategy within the fast food industry (Lashley 1998; Pitta 2010; Whiting and Weckman 2004). This study provides case material for discussions of how queuing strategy and operations layout affect customer cycle times and satisfaction, how employee interactions create positive or negative customer experiences, and how simple or complex product selections can influence customer preferences, workplace complexity and other outcomes. Finally, we plan to use the process of creating this study instrument as a discussion case for research methods

students in preparation for creating their own studies. “Real-life” examples of applicable and practical research will likely connect more easily with student experiences and expectations than will theoretical pieces with less daily relevance.

CONCLUSIONS

Our study of the fast food or quick service industry and its conclusions are of interest to businesses in the field, but the study and its structure can also be of use in the classroom. This study and the process by which it has occurred help to keep us current on an issue common to the daily life of students, and the industry itself is a significant part of the American economy. We intend to further the basic principles of the study in a future project with senior honors students at our university, assisting them in conducting their own research project using our methods. The results from this second study may provide useful data for comparison with that from our own study.

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Table 1: Survey Experience Items

Satisfaction	I am satisfied with the quality of food I received
<p>(Rated from strongly disagree to strongly agree)</p> <p>(Note: Bolded items are used as dependent variables in some tests)</p>	I am satisfied with the quality of service I received
	I am satisfied with the value I received for the price I paid
	I feel like I got exactly what I paid for
	I plan to visit this restaurant again soon
	I would recommend this dining experience to friends and family
	Overall, I am satisfied with this dining experience
	This dining experience was exactly what I expected
The Food	My food was served fresh and at the correct temperature
<p>(Rated from strongly disagree to strongly agree)</p>	The amount of food was as large as I expected it to be
	The food was delicious and flavorful
	The food was well-packaged and attractive
	The quality of the food was excellent
The Environment	The atmosphere provided a pleasant dining experience
<p>(Rated from strongly disagree to strongly agree)</p>	The bathroom appeared to be cleaned and prepared on a regular basis
	The cleanliness and overall atmosphere were what I expected
	The dining room music or entertainment improved the dining experience
	The dining room seating was comfortable
	The dining room was clean and attractive
	The lighting in the dining room improved the dining experience
	There was a sufficient supply of items such as sauces, utensils, and napkins
The Business	Employees addressed my concerns quickly and efficiently
<p>(Rated from strongly disagree to strongly agree)</p>	The employees acted and dressed professionally
	The employees seemed to know what they were doing
	The employees were friendly and courteous
	The hours that this restaurant is open are convenient
	The prices at this restaurant are competitive with other fast food restaurants
	There was enough parking for me to find a space for my car

Table 1 (cont.): Survey Experience Items	
The Transaction	I received the correct change at checkout
(Rated from strongly disagree to strongly agree)	My order was correct and complete
	My order was served to me quickly
	My order was taken promptly and professionally
	The menu board was easy to read
	The menu had a variety of items to choose from
	The speed of service was what I expected it to be

Fast Food Satisfaction: How Do the Locals Stand Up to the Chains?

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Abstract

Limited service restaurants (fast food) have become a major part of the American dining-out experience. In both 2002 and 2007, the U.S. Census Bureau (2007) reported that limited service (fast food) restaurants accounted for about 35% of all restaurant sales in the United States and that sales grew almost 30% for the fast food industry while the number of establishments for the industry surpassed the 200,000 mark. In 2007, the industry's sales surpassed the \$150 billion mark, and more than 3 million people were employed in the industry (U.S. Census Bureau 2007). Usage among average fast food consumers was reported in 2006 to be at over 17 visits per month and among heavy use consumers to be nearly one visit per day (Clarke 2006).

In a study of 232 separate meal experiences from more than 70 business students, we compare the locally-owned, non-chain restaurant experience (e.g., Mary Smith's Diner) to the chain restaurant experience (e.g., McDonalds or Taco Bell). The number of local restaurant experiences was relatively small ($n = 14$) compared to the chain experiences ($n = 218$), but it was large enough to calculate some preliminary results. Understandably, the number of statistically differentiated rating items was limited because of sample sizes, but the mean differences between these two types of restaurants was actually nominal. We found statistically significant differences in only eight of the 37 rating items used to evaluate each experience. In those eight areas, participants expressed a higher expected and realized satisfaction with the experience at the local restaurant, considered the locals to have a better and cleaner atmosphere, and better dressed and professionally acting employees than their chain competitors. The only statistically significant preference for chains over locals in this limited study

was that the chains tended to have more convenient hours of operation. We are currently expanding the study to include students outside the business field and to increase the number of rated experiences for further investigation.

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