An Investigation of the Importance of Ethnic Food to International College Students in the United States

by

Khalid Mahmoud Eyoun

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Approved by

David Martin, Chair, Assistant Professor of Nutrition, Dietetics, and Hospitality Management
Martin O’Neill, Professor & Department Head Department of Nutrition, Dietetics & Hospitality
James Witte, Professor of Educational Foundations, Leadership & Technology
Abstract

This study is aimed at investigating the importance of ethnic food to international college students in the U.S. Specifically, this research seeks to investigate the effect of the inclusion of ethnic food into on-campus dining options and the future behavioral intentions and self-reported personal health of international students. Additionally, this research identifies the reasons underlying the importance attached to ethnic food, examines the current perceptions about the availability and quality of ethnic food restaurants and retailers, and identifies the ethnic food dining habits of international students. Due to the lack of previous research in this area, both qualitative and quantitative approaches are necessary in this study to establish a foundation that can be used in future research within this area. This study employs $t$-test and descriptive statistics to answer the research questions.

Overall, this research has discovered that ethnic food is important to international students and that the inclusion of ethnic food into on-campus dining options is a competitive advantage for universities who provide this service over those who do not. The study has also found that university administrators should pay more attention to ethnic food into on-campus dining services. Ethnic food operators also need to focus on certain ethnic food items that international students consider when they dine out.
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Chapter I

Introduction

Background

The Institute of International Education’s Open Doors 2012 reports that the number of international students attending colleges and universities within the U.S. increased by 5.7 percent to 764,495 during the 2011-2012 academic year, compared to 723,277 during the 2010-2011. International students contribute over $22.7 billion to the U.S. economy through their expenditures; these expenditures encompass expenses such as tuition, room and board, health insurance, transportation, and other living expenses, according to the U.S. Department of Commerce (IIE, 2012). Higher education is considered one of the U.S. top service sector exports; this is because international students provide monetary outflow to the U.S. economy (IIE, 2012). Additionally, higher education has been recognized as an industry of service; subsequently, greater importance should be placed on fulfilling the expectations and needs of students (Cheng & Tam, 1997).

The benefits in the enrollment of international students in institutions of higher education are generally recognized in four primary categories that include academic, cultural, political, and economic characteristics (Funk, 2001). Previous research has emphasized the importance of internationalizing campuses and the educational benefits stemming from the presence of international students in the U.S. (Barger, 1995; Jones, 2002; & Yang; 2004). From a political
 perspective, educating the future leaders of foreign countries helps spread the political values of the U.S. and fosters mutual understanding of the U.S. throughout the world (NAFSA: Association of International Educators, 2003). Academically, international students have become an asset to teaching and research in higher education; particularly in the scientific fields (Khafagi, 1990; Kotkin, 1993; Goodman, 1996; Potts, 1998; Ward, 2003). Prior literature suggests that the presence of international students diversifies a student body with varieties of nationalities, cultures, and languages (Lewis, 2003). It additionally contributes to classroom diversity, encourages cross-cultural dialogue, and enriches the learning environment and the experiences of domestic students (Hayward & Siaya, 2001; Rai, 2002; Ward, 2003).

Student recruitment and retention is important for academic institutions throughout the world (Rowland, et al., 1999; Yurtseven, 2002). In 2000, Lacina, noted that “if we want to attract and retain international students to our university campuses, we must focus on the students’ needs and successes in the American university experience” (p. 26). Research has shown that most American colleges and universities have accepted international students into their programs without really thinking about what they were doing (Goodwin & Nacht, 1983). In these institutions, students are self-selected, and therefore come to the institution through the accident of relatives or friends previously having stumbled across the institution. Or, a faculty member might have met a student or his/her family while traveling overseas (Goodwin & Nacht, 1983).

There is consistent agreement among managers, marketing researchers, and sociologists that customer interactions through word-of-mouth (WOM) can have a major impact on consumer response to a product and that product’s advertising (Arndt, 1967; Danaher & Rust, 1996; Herr, Kardes & Kim, 1991). Because WOM is an inexpensive and reliable way of transmitting information about products and services, WOM plays an important role in diffusing information.
through consumer markets and shaping consumer attitudes (Brown & Reingen, 1987; Mizerski, 1982; Mourali et al., 2005).

In the same way, students pay for services in the form of education; therefore, they claim they should be treated like customers (Kanji & Tambi, 1999). Bejou (2005) argues that since it is cheaper to retain existing customers than to attract new customers in the realm of business, it is also more efficient to focus more on student satisfaction and retention, rather than to simply gain more students, within the realm of academics. Bennett (2003) expounds upon this idea by noting how students who withdrawal may damage an institution’s reputation through negative WOM comments; this can impact future student recruitment and retention efforts. However, there is conflicting discourse in current marketing and management literature about whether students are normal customers and what the key differences are between students and other service customers (Brennan & Bennington, 1999).

Like normal customers, students undergo the usual consumption and post-consumption behavior. Therefore, satisfied students will engage in WOM communication, the recommendation of their university to potential students, returning to complete higher degrees (repeat purchase), cooperating with the university by offering placements for current students, giving guest lectures, and becoming valued alumni (Mavondo, Tsarenko & Gabbott, 2004). As alumni, they provide financial support, promote the university through WOM, create supportive networks accessible to current and future students, and also provide role models for future student generations (Mavondo, Tsarenko & Gabbott, 2004). Zeithaml (1988) highlighted that a customer’s perception of value plays an important role in their purchase decision-making; this suggests that behavioral intentions are consequences of value perception. In essence, when
customers have high levels of value perception from their consumer experiences, they are more like to express positive behavioral intentions.

When international students travel to foreign countries, they undergo what is termed acculturation. This is because international travel inherently entails dealing with foreign cultures. The acculturation process includes change within the international traveler, which occurs as a result of their direct and continuous contact with people from different cultures (Redfield, Linton, & Herskovits, 1936). Essentially, travelers undergoing the acculturation process are in the process of changing the attitudes, values, norms, beliefs, and behaviors of their native culture; at the same time, they are also adopting those of a new society (Gordon, 1964; Gans, 1979). Nevertheless, any claim to acculturation adjustment would be incomplete without attention to food consumption; this is especially important considering the centrality of food to an individual’s wellbeing (Locher, et al., 2005). Food is a cultural symbol (Verbeke & Lo´pez, 2005). It is a cultural trait that humans learn throughout their primary development in childhood and a trait that consumers change with great reluctance in older age (Cervellon & Dube´, 2005).

So what is ethnic food? Ethnic food refers to the expression of food in terms of attitudes, values, behaviors and beliefs of a particular culture that express cultural traditions, heritage, religion, or national origin (Mora, 1998). Ethnic restaurants not only function as eating establishments, but also serve as “cultural ambassadors” that communicate the essence of a culture through its menu to local customers (Wood & Munoz, 2007). In many ethnic restaurants, the owners have roots in the original culture that their restaurant represents. Since the U.S. is a multicultural and multiethnic nation, this national trend of hosting diverse international students will likely increase (Josiam & Monteiro, 2004; Sukalakamala & Boyce, 2007). One example of cultural and ethnic diversity is the success of ethnic food restaurants in the American foodservice
Ethnic food sales in the U.S. surpassed $2.2 billion in 2009 and are expected to increase by 20% by 2014 (US Ethnic Food Market, 2005). America’s ethnic food market generates $75 billion in annual sales; almost 65% of this is attributed to the restaurant sector of the foodservice industry (US Ethnic Food Market, 2005).

For a plethora of reasons, ethnic food is important in the lives of international students because it represents a basic part of their culture, history, faith, and individual identity (Eyoun & O’Neill, 2012). As a result, fulfilling the dietary needs of international students on campuses and in surrounding communities should be recognized as a competitive advantage in the eyes of universities. A clearer understanding of the importance and value of satisfying the ethnic diets of students will give universities valuable insight into how to better satisfy their customers. In turn, this, will help these universities more effectively fulfill the needs of existing international students and will make their institutions more attractive to future international students.

Therefore, in current environments where universities are competing to enrich their campuses in an abundance of ways, the inclusion of providing proper on-campus ethnic food services for students could aid in creating a competitive advantage between universities.

Statement of the Problem and Research Objectives

Prior research in this area has investigated several issues encountered by international students in the U.S. such as language barriers (Babiker, Cox & Miller, 1980; Church, 1982; Dillon, 1993; Heikinheimo & Shute, 1986; Padilla, et al., 1986; Rubin, 1993), the lack of familial support systems (Bochner, 1972; Pedersen, 1988; Romero, 1981; Vega, Kolody & Valle, 1988), culture shock and social adjustment (Bochner, 1972; Day & Hajj, 1986; Pedersen, 1991; Spradley & Phillips, 1972), personal depression, homesickness, and loneliness (Klineberg &

However, little empirical research exists on the role ethnic food plays in the academic journey of international students; food is usually mentioned only incidentally as one of the aspects that students find distressing in their acculturation process (Furukawa, 1997; Okorocha, 1996; UKCISA, 2009). In addition, as most universities in the U.S. have an excessive need to attract international students (Lacia, 2002), it should also be noted that the fulfillment of the dietary needs of international students can also be viewed as a potential competitive advantage. Despite the importance of the international students to American educational institutions [and to the knowledge of this researcher], no previous study has addressed the importance of including ethnic food in on-campus dining options to better accommodate international students in the U.S. The primary purpose of this study is to identify the importance of ethnic food to international students at American universities. More specifically, the objectives of this study are:

1) To examine the relationship between ethnic food provision by university on-campus dining options with international student’s future behavioral intentions in the U.S.

2) To examine the relationship between ethnic food provision by university on-campus dining options with international student’s self-reported personal health in the U.S.

3) To identify the reasons which underline the potential importance attached to ethnic food by international students in the U.S.
4) To examine the current perceptions held by international students about the availability and quality of ethnic food restaurants and retailers in the U.S.

5) To identify ethnic food dining habits of international students in the U.S.

**Research Questions**

This study is an attempt to answer the following research questions:

1) To what extent is the inclusion of ethnic food provision by on-campus dining options associated with international student’s future behavioral intentions?

2) To what extent is the inclusion of ethnic food provision by on-campus dining options associated with international student’s self-reported personal health?

3) What are the reasons which underline the potential importance attached to ethnic food by international students in the U.S.?

4) What are the current perceptions held by international students about the availability and quality of ethnic food restaurants and retailers in the U.S.?

5) What are the ethnic food dining habits of international students in the U.S.?

**Significance of the Study**

The significance of this study is rooted in the vital role international students play in the American educational systems and student communities. As the enrollment of international students continues to increase, universities that provide proper ethnic foods for international students may enjoy competitive advantages over universities that do not provide similar services. One aspect of enhancing the learning and life experiences of international students could potentially involve the inclusion of ethnic food options into university on-campus dining
services. Despite the various reasons for the importance of international students, no studies have addressed the issue of ethnic food and international students’ future behavioral intentions and their likelihood to recommend one university over another to prospective students.

**Definitions**

The following information is provided for better clarity in defining key terms throughout this research. It will facilitate a better understanding of the goals and importance of this research.

*International student:* According to Skinner (2002), international students are “students from abroad who are enrolled for courses at American schools, colleges, or universities, and admitted under a temporary visa” (p. 1310).

*Acculturation:* Redfield, Linton, and Herskovits (1936, p.149) provides the following definition of acculturation: “acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups.”

*Ethnic food:* The Food Marketing Institute (1998) defines ethnic food as a product that particular ethnic (racial, national) or cultural groups favor, such as Mexican, Chinese, Indian, Kosher, and many others.

**Limitations**

Although this research has been carefully prepared, there are some unavoidable limitations. According to the *Open Doors* report 2012, Asia is the highest place of origin for international students who come to the U.S; the number of students from Asia in the U.S increased by 6.1% in 2011-2012 to 489,970 students. This could potentially affect the results of
this study because if there is a greater percentage of available Asian dining options, Asian students may report better perceptions of ethnic food dining options than students of other ethnicities. Therefore, the dominance of Asian students may skew the results. Another limitation is that only six universities actually participated in this study out of ten universities who were invited to participate. Therefore, caution should be exercised when generalizing the results of this study beyond its scope. Lastly, based on the lack of previous research addressing the issue of ethnic food and university students, this study is considered to be exploratory in nature, thus limiting the application of the results to other populations outside of the one investigated here.

**Organization of the Study**

There are five chapters in this study. Chapter one serves as an introduction to the study. Chapter two is a review of literature pertaining to the topics addressed throughout this study. Chapter three discusses this study’s research design and methods. The results of this research are presented in Chapter four. Chapter five includes a discussion of the results, conclusions, implications, and recommendations for future research.
Chapter II

Literature Review

Overview

This research seeks to fill the existing gap in hospitality literature by diagnosing the importance of ethnic food to international students enrolled in colleges and universities throughout the U.S. A review of the literature presented in this chapter will include previous research related to the internationalization of education, the importance of this issue as a global phenomenon, the appeal international students find in American educational institutions, and the importance of international students to the American educational system. The review also includes the discussion of relevant topics to this study, including recruiting international students, the importance of Word of Mouth in the decisions of international student when selecting universities, services provided by American universities to support international students, acculturation and culture shock, difficulties encountered by international students, and ethnic food.

Internationalization of Education

The history of individuals crossing borders for education can be traced back to around 300 BC when Greek scholars traveled to Alexandria to further their academic training (Jalowiecki & Gorzelak, 2004). According to the Organization for Economic Cooperation and Development (OECD), the number of international students worldwide increased from 1.6
million in 2000 to nearly 2.3 million in 2003 (OECD, 2007); these increases are likely to continue. By 2025, it is expected that there will be 7.2 million international students worldwide (Boehm, Davis, Meares, & Pearce, 2002). This increase in the number of international students has been linked to several factors such as growth in household wealth, the increase in the demand for higher education, the lack of educational opportunities in various countries to meet educational demands, and the growing interest in studying overseas (Boehm, Davis, Meares, & Pearce, 2002). Other factors played a vital role in driving the growth in the globalization of education: these factors include the successful marketing campaigns of host universities; the obvious value of a foreign degree and its impact on future employment; the lack of universities in international student’s native countries; government policy in relation to student fees; and other various factors such as the opportunity for immigration (Pereda, 2006).

The international market environment (linked with the dominance of global mobility along with the continued increase of immigration to other countries) demonstrates that no country can deny the popularity and desire for international education (Schwellnus, 2001). Globalization in higher education is a strong and continually increasing trend; this is because institutions have become more aware of the financial, cultural, and intellectual benefits that international students contribute to the economy (Verbik & Lasanowski, 2007).

Another factor behind the trend of the internationalization of education are the benefits that international students bring to the host university or country. For instance, Australia is benefiting from the skills of foreign students who have chosen to stay in the country to work; particularly in the fields of information and communications technology, and engineering (Colebatch, 2005). Comparatively, according to the Higher Education Statistics Agency HESA (2006) and United Kingdom Council for International Student Affairs KCOSA (2004), about
320,000 [or 13 per cent] of students in the UK throughout 2004-2005 were international, with roughly 10 percent from outside the European Union (EU).

For some educational institutions, international students represent more than 25 percent of their student population (UKCOSA, 2006). International student enrollments in Canada are “viewed as an important, even essential, source of revenue by post-secondary institutions” (Lee & Wesche, 2000, p. 638). This demand of international education has not only grasped the attention of scholars, but also of those in governmental positions. Universities in the UK (those that do not practice fundraising like that of their US counterparts and where tuition fees are governmentally limited) are looking to increase the enrollment of international students to strengthen revenue and competition (Marshall, 2005).

In Europe, high priority has been given to academic international mobility of students and faculty (Sporn, 1999). The internationalization of professional licensing and certification is a popular trend in Europe; it complies with the requirements of the European Union, which is necessary in continuing professional education for assuring uniform application of standards across member nations (Lapiner, 1994). Moreover, it is evident in many other countries that universities are recognizing the need to achieve global competence as institutions and on behalf of their graduates (Council on International Educational Exchange, 1994).

In Canada, institutional change in universities was recommended in order to internationalize the undergraduate curriculum (Smith, 1991). The required changes for universities included: (1) a curriculum review to ensure emphasis on international dimensions of issues; (2) an increase of the proportion of students from abroad, including both developed and newly industrializing countries; (3) further development in the amount and types of exchange programs, study abroad programs, and internships so that Canadian students can experience other
cultures; (4) enhanced utilization of diversity and international experiences from faculty, students, and the general community. In Australia, some educators were concerned that English language proficiency requirements were being sacrificed to attract much needed revenue from overseas students (Coley, 1999).

International students have a long history in the U.S.; when the first came from overseas in 1784 and by 1946, about 15,000 were studying in America (Jenkins, 1983). American universities have been a leading host for international graduate students for more than a decade (IIE, 2008). Higher education in the U.S. has indeed grown from a collection of small, local markets to regional and national markets (Hoxby, 1997). Interests in international student education has increased in the past couple of decades due to globalization, enhanced awareness of better educational opportunities, and improved efforts of the U.S. educational institutions to attract quality students (Altbach, 2004). As reported in the literature, several universities have taken special steps to ensure that the number of international students on their campuses does not decline (Najafi & Safai, 2008).

Skinner (2002) believes that “more international students pass through American’s doors than those of any other country, making the U.S. the world’s most sought-after and diverse educational region in the world” (p.1310). There are several reasons why international students come to the U.S.: to pursue their academic goals (Hull, 1978); to acquire education and training that is pertinent in their home countries (Woolston, 1995); to gain prestigious status by obtaining a collegiate degree from an American educational institution (Huntley, 1993); and to escape from various economic or political instabilities in their native countries (Woolston, 1995).
Importance of International Students to Educational Institutions

Numerous countries have created multiple plans to increase registration of international students (Andrade, 2006). Australia, the UK, and Canada “have developed clear national priorities and comprehensive strategies to attract a larger number of international students” (Schneider 2000, p. 2-3). These strategies include centralized planning, cooperation between government and education, funding for outreach programs, centralized websites with higher education information, and simplified visa and university application processes (Schneider, 2000). For example, Germany has developed English educational programs with transferable credits, while France has increased international enrollments through well-budgeted recruitments of Asian and Latin-American students (Schneider, 2000).

Along with viewing international students as sources of revenue, countries also see international students as a potential source of skilled professionals and are adjusting immigration policies in order to make maintaining residency and work easier for international students after their studies have been completed (Tremblay, 2005).

The Economic Impact of International Students in American Educational Institutions

Economic impact is defined by the National Association of Foreign Student Advisors (NAFSA) as “the amount of money that foreign students collectively bring into the U.S. to pay for their education and to support themselves while they (and in some cases, their families) are here” (NAFSA: National Association of Foreign Student Advisors, 2002). Funk (2001) recognizes that the widely acknowledged value of international students is often measured in terms of expanding awareness, classroom interaction, and non-economic rhetoric. Beyond this, Funk indicates that within the last couple of decades, “a distinct shift towards a greater
appreciation of international education’s economic benefits has occurred within many universities worldwide” (p. 23).

Funk (2001) states, “The impact of international students on universities is most directly experienced in the enrollment flexibility of guaranteed payments of a substantial out-of-state fee assessment, which translates into significant marginal cost savings and program maintenance benefits” (p. 24). Mazzarol (1998) reports, “One of the more significant service industries that emerged in the 1980s and 1990s is international education” (p. 163). Qiang (2003) states that “recruitment of foreign students has become a significant factor for institutional income and national economic interest.”

Public and private universities who have financial problems have even more motivation to use international students as a means to increase the monetary outflow. (Altbach & Knight, 2007). Since overall academic institution funding continues to decrease, universities have considered internationalizing their campuses as an alternative way to increase income (Ayoun, Johnsona, Vanhyfte, & O'Neill, 2010).

The positive impact of international student enrollment in the American economy (as well as monetary contributions to higher education institutions) has been addressed by several researchers and professional organizations (e.g., Herbert, 1981; Rogers, 1984; Zikopoulous & Barber, 1986; Dresch, 1987). International students are often considered sources of revenue by host countries and institutions; as a result, they are recruited as a means of generating income (Lee, et al., 2006). Open Doors reported that more than 60% of all international students receive the majority of their funding from personal and familial sources, but when other sources of foreign funding are included [such as assistance from their home country governments or
over 70% of all international students’ primary funding comes from sources outside of the U.S. (IIE, 2011).

The Cultural Impact of International Students in American Educational Institutions

As international students study in American institutions, they benefit the U.S. in many ways (Lee & Rice, 2007). They increase the diversity of student populations, add new perspectives to classroom conversations, and increase the awareness and appreciation for other countries and cultures (Bevis, 2002; Harrison, 2002).

Gurin et al., (2002) notes that students develop their critical thinking skills through the experiences associated with racially diverse campuses. When cross-cultural interactions take place, the psychological, social, and academic benefits are often attributed to international students (Klineberg & Hull, 1979; Berry & Kostovcik, 1983; Redmond & Bunyi, 1993; Perucci & Hu, 1995; Furnham & Erdmann, 1995; Noels, et al., 1996). Furthermore, the benefit of international students also aid domestic students in personal development and exposes them to valuable social, cultural, political, and economic experience (Cheney, 2003). International students contribute to intercultural learning and increase understanding of diversity and global issues (NAFSA, 2003).

International students not only contribute to diversity in university enrollment, but they also add fresh perspectives and broaden cultural understanding inside and outside of the classroom (Bevis, 2002; Harrison, 2002). Throughout the interaction between international students with domestic students, the most recent relationships display feelings of care (Schoorman, 2000) and enhanced abilities to live, communicate, and compete in global societies (Ward, 2003). Cross-cultural friendships with international students provide domestic students
with an opportunity to improve their cross-cultural competence and are a valuable source of social, cultural, political, and economic experience (Cheney, 2003).

**The Educational Importance of International Students in American Educational Institutions**

From an academic perspective, international graduate students have become a crucial part of both teaching and research in higher education; especially in scientific fields (Khafagi, 1990; Kotkin, 1993; Goodman, 1996; Potts, 1998; Ward, 2003). They possess knowledge and skills in many fields, especially within the sciences, engineering, and technology (Barber & Morgan, 1987; Altbach, 1989, 1998; Slaughter & Rhoades, 2004).

In a study of American attitudes toward cultural diversity and international students, Smith (1998) found that professors believe international students enhance the intellectual atmosphere on campus. Ward (2003) and Davis (2002) indicate in their study that international students contribute specialized knowledge, skills, and ideas to the American classroom. Other scholars report that international students provide healthy competition for domestic students: they develop more sincere respects for learning (Rai, 2002). In addition, they work harder, complete their degrees faster, and are more accepting of the challenges directed at graduate students (Holden, 1993).

Some scholars have also identified international students as sources for linguistic competence and stress their academic importance on campuses (Rogers, 1984; Altbach & Wang, 1989; Hornberger, 1991; Barger, 1995; Funk, 2001; Magaya, 2004; Moe, 1997; Phanchantraurai, 2005). Rogers (1984) emphasizes the importance of international students on campus because of their contributions to the enrichment of curricular programs and extracurricular activities; this urges faculty and administrators to develop curriculum using international students as resources.
Smith (1989) suggests that communities surrounding universities may benefit from the presence of international students and from the ability to contact international students as educational resources for clearer international understanding in classrooms.

**Recruitment of International Students**

In order to recruit foreign students, many countries and academic institutions across the globe have developed a number of ways to facilitate and simplify enrollment. In the United Kingdom, The Universities & Colleges Admissions Service (UCAS) (www.ucas.ac.uk)- an association of universities-helps students find universities and simultaneously apply online to a selection of approximately 180 universities and colleges; it also allows students to list preferences for up to six universities, check their visa status online, and assess their qualifications for admission. The UK government has supported several initiatives to attract more international students, with the goal of becoming the world’s leading country in international education (Binsardi & Ekwulugo, 2003).

EduFrance (www.edufrance.fr/en/index.htm) is a joint effort in France between the Ministry of Foreign Affairs and the Ministry of Education, Higher Education, and Research. It was created in 1998 to promote worldwide French higher education through a network of 75 regional offices in 45 countries. It also provides a comprehensive website to help prospective students search for programs and institutions, apply online, and receive information on visas, insurance, residency, and employment. Similarly, the U.S. and Australia have been applying aggressive international marketing strategies in the realm of education (Michael, 1990; Mazzarol & Hosie, 1996).
Student recruitment and retention is important for academic institutions throughout the world (Rowland, et al., 1999; Yurtseven, 2002). For instance, the U.S. and Australia have been attracting more international students. This continuing growth in overseas student numbers in the U.S. and Australia is due to the sustained, pro-active, and aggressive marketing strategies in the international markets for education (Smith, 2001; IDP, 2002; Mazzarol & Hosie, 1996; Michael, 1990). Overall, the extent to which such policy initiatives are being pursued around the world is unclear. For example, from the American institutional perspective, it seems few higher education graduate programs are preparing university professionals to understand and address the needs of the growing number of international enrollees (Schultz, et al., 2007).

Students are becoming extremely critical and specific in choosing their educational institutions (Binsardi & Ekwulugo, 2003). Due to the increasing enrollment in international education, institutions must maintain and develop a prestigious image in order to maintain a competitive advantage (Paramewaran & Glowacka, 1995). Price et al., (2003) discovered that facilities are considered as major influences in the selection of institutions where students will pursue their studies.

Despite the obvious benefits and the current trend of globalizing education, university administrators are still lacking in their actions to fulfill international needs. Magaya (2005) investigates the strategies for recruiting international students; specifically the trends and patterns in public universities in the state of Illinois. The results indicate that most universities were not actively involved in recruiting international students. Overall, with the increasing competition for the enrollment of international students in institutions around the world, the U.S. is in a war for academic talent (Lucas, 2008).
**Word of Mouth (WOM)**

WOM is defined as a form of interpersonal communication among consumers regarding their personal experiences with a firm or product (Richins, 1984). Research has also indicated that WOM is a powerful marketing tool, because of its high incident rate as well as the persuasive role that it plays in influencing consumer’s attitudes and purchase decisions (Bone, 1995).

WOM is particularly important in service marketing due to the wide range of service quality, the higher associated risk, and the vague nature of services (Bansal & Voyer, 2000; Ekeland, et al., 1995; Jolson & Bushman, 1978). Consumers look for information from many sources, such as friends and relatives, to make more informed decisions (Berger, 1988; Jolson & Bushman, 1978). WOM can be considerably more effective than conventional marketing approaches in influencing consumer behavior (Katz & Lazarsfeld, 1955; Trusov, Bucklin, & Pauwels, 2009). Needless to say, it is a very dynamic form of interpersonal communication that goes far beyond the mere exchange of commercial information (Kozinets, de Valck, Wojnicki, & Wilner, 2010).

Both positive and negative WOM communications can have a strong influence on consumer behavior and the performances of businesses (Arndt, 1967). Studies show that positive WOM (PWOM) is likely to increase consumer purchase intentions for innovative products by reducing risks (Dichter, 1966), it also creates a favorable image toward the brand and the firm (Arndt, 1967), and subsequently decreases a firm’s overall promotional expenditures. Conversely, negative WOM (NWOM) is likely to dissuade potential buyers from considering a particular product or brand, which damages the company's reputation and financial position (Holmes & Lett, 1977).
In addition to being an important outcome in any service context, PWOM has been shown to be one of the most important factors in attracting international students to higher education (Allen & Higgins, 1994). In a study by Lois Patton (2000), it was found that while many variables such as course offerings, facilities, distance, and fees are important, the major force behind selection criteria is word-of-mouth communication. The core service of a higher education institution, teaching, is intangible (McDougall & Snetsinger, 1990). Intangibility [or the lack of physical evidence for a service] forces a consumer to rely on sources of information such as word-of-mouth recommendations to arrive at purchase decisions (Webster, 1991).

Specifically, prospective students learn about higher education institutions and forms expectations about the quality of that institution from other attendees such as parents, friends, or relatives (Athiyaman, 2000). Additional sources of information, such as institutional advertisements and university guides, can also impact university choice, but it has been shown in various research (Cook & Zallocco, 1983), that word-of-mouth recommendations from family and other sources, constitute a major source of influence on student university choice.

**Future Behavioral Intentions**

People who have behaved in a certain way at one point in time are likely to do so again (Bentler & Speckart, 1981; Budd, North, & Spencer, 1984; Mittal, 1988; Ouellette & Wood, 1998). Many exceptions are associated with this general rule. For example, a behavior is unlikely to be repeated if the consequences of performing it the first time were disastrous (Skinner, 1953). Moreover, situational factors that did not exist when the behavior was first performed may prevent its recurrence (Liska, 1984). Nevertheless, all things being equal, prior actions are often a good predictor of their future behavior (Bentler & Speckart, 1981; Ouellette & Wood, 1998).
Customers frequently develop an attitude toward purchasing based on prior service experiences (Ryu, Hanb, & Kimc, 2008). They also undergo a cognitive decision-making process about whether to stay or leave a service firm (Colgate & Lang, 2001). Oliver (1997) describes this attitude as the development of a fairly stable like or dislike of a product, based on previous experience. In this context, Oliver (1997) defines behavioral intentions as an affirmed likelihood to engage in a certain behavior. Behavioral intentions can be viewed as signals that show whether a customer will continue to utilize a company’s services or switch to a different provider (Zeithaml, et al., 1996). Willingness to engage in recommendations is also a positive behavioral intention; one that is derived from the perceived value of consumption experiences (Bowen & Shoemaker, 2003; Ladhari, et al., 2008).

Behavioral intentions involve recommending the company to others, providing positive word of mouth (WOM), a willingness to behave as a partner with the organization, and remaining loyal to the company (Bowen & Shoemaker 1998; Reichheld & Sasser 1990). Customers who make a personal referral must not only believe that a company offers superior value, but also feel good about their relationship with it (Reichheld, 2006). Kumar and Ramani (2006) indicated that firms develop an interaction orientation in order to better plan marketing activities and maintain long-term customer relationships. Customer satisfaction is regarded as one of the antecedents of post-purchase behavioral intentions; this is because customer satisfaction has a positive effect on the customer’s attitude towards the product or service and can reinforce the customer’s conscious effort to purchase the product or service again in the future (Oliver, 1980, 1999).
How International Students Select a University

The decision to study overseas is one of the most significant and expensive initiatives that students may ever undertake (Mazzarol, 1998). Therefore, the high costs of studying abroad make it a complex decision. Most complex and expensive decisions are more likely to involve deeper buyer deliberation (Assael, 1981, cited in Nicholls, et al., 1995).

Due to the increasing demand for educational services, marketers must be more aware of the fundamental factors customers consider when evaluating services (Ahmed, et al., 2002) if they want to survive in competitive environments (Vaira, 2004). Institution selection is determined by several factors such as the academic reputation of the institution, the quality and expertise of its teaching faculty, and the general appeal of the campus (Krampf & Heinlein, 1981; Lin, 1997; Mazzarol, 1998; Soutar & Turner, 2002). Peterson et al. (1999) warn “Higher education institutions that take international students for granted, as ’cash cows,’ do so at their peril.” (p. 69). Detailed university information, services, and programs are critical in helping international students have positive experiences, fulfill their educational goals, and return home satisfied (Carr, et al., 1999; Lee & Wesche, 2000).

The universal aspects of international students’ university choices may be clarified by a combination of both “push and pull” factors that inspire students to study abroad (Mazzarol & Soutar, 2002). Push factors function within the home country and initiate a student’s decision to undertake international study. On the other hand, pull factors operate within a host country to make that country relatively appealing to international students. Some of these factors are inherent in the native country, some in the host country, and others in the students themselves (Mazzarol & Soutar, 2002).
Six factors have been found to influence student selection of a host country (Mazzarol, et al., 1997). The first is the general level of knowledge of the host country in the student's home country, which is influenced by the availability of information about the potential destination country and the ease of obtaining the information by students. Encompassing this factor is the destination's reputation and the recognition of its qualifications in the student's home country. The level of personal recommendations that students receive regarding the study destination from parents, relatives, friends and others, prior to making the final decision was considered to be the second factor. The third factor is linked to monetary issues such as the cost of fees, living expenses, travel costs, and social costs, such as crime and safety. Furthermore, the population of students from the student’s home country is the social cost, while the availability of part-time work is considered the financial cost.

The fourth factor is the overall environment, which is related to overall perception with respect to the study climate in the destination country, as well as its physical climate and lifestyle. The fifth factor is related to geographic similarity, which is related to the geographic and time zone similarity of the potential destination country to the student’s native country. The last factor is associated with social connections, which is related to whether a student has family or friends living in the destination country and whether family and friends have studied there previously. Additional factors may also play a vital role in making an institution more attractive than its competitors, such as the institution’s reputation for quality, market profile, range of courses, alliances or coalitions, offshore teaching programs, staff expertise, degree of innovation, use of information technology, resources, size of the alumni base, and promotion/marketing efforts (Mazzarol, 1998).
According to prior research on the factors affecting international student’s choice of a university, further factors have been identified. The decision of acquiring products or services can be positively influenced by the country image (Bilkey & Nes, 1982; Javalgi, et al., 2001). Consumers consider the image of the country first when evaluating a product or service, since the attitude of consumers towards the product or service is related to stereotypes about the country of origin (Peng, et al., 2000). According to Binsardi and Ekwulugo (2003), there are also personal reasons related to the potential and essential benefits of obtaining a foreign degree; students are not necessarily buying degrees, but the benefits associated with a degree in terms of employment, status, and lifestyle. Bourke (2000) indicates that among personal factors that influence student university decisions are the enhanced career prospects and higher status implied in studying abroad.

The work of Mori (2001) verifies that location and social facilities in a city are the most important factors related to the environmental conditions which influence the students’ choice. Positive institutional images can strongly influence the decision to attend an educational institution (Krampf & Heinlein, 1981; Qureshi, 1995; Mazzarol, 1998; Bourke, 2000; Gutman & Miaoulis, 2003). The institutional image is the total of opinions, ideas, and impressions that prospective students have of the institution (Kotler & Fox, 1995). Their opinion about the image of the institution is formed from word of mouth, past experience, and marketing activities of the institution (Ivy, 2001). Facilities, the physical environment of the service, play an important role in the decision-making process as well (Cubillo, Sa´nchez, & Cervin˜o, 2006). Price et al. (2003) have found that, when a service is provided with a high standard, facilities are considered as an appropriate factor in influencing the students’ selection of the institution where they will pursue their studies. Hooley and Lynch (1981) observe that the suitability of the program is the most
important factor, since students will accept any level of the other factors. In this sense, Binsardi and Ekwulugo (2003) show that product and promotion variables have increasing importance in the choice.

**Difficulties Encountered by International Students**

The U.S. hosts more international students than any other country in the world (McMurtrie, 2001). All college students go through the process of adapting to new educational and social environments. Adapting to these environments may be even more stressful for international students since they have the added strain of differing cultural values, language, academic preparation, study habits, and the “uprooting disorder” (i.e., separation from home environment that disturbs their well-being; Coehlo, 1980; Mori, 2000; Zwingmann & Gunn, 1983). As a result, international students experience more adjustment problems in American colleges and universities than American students (Cheng, Leong, & Geist, 1993; Owie, 1982; Padilla, Alvarez, & Lindholm, 1986; Sandhu & Asrabadi, 1994). Life stressors have been found to create academic problems for international students (Marion, 1986; Orpeza, Fitzgibbon, & Baron, 1991) and contribute to academic stress (the secondary stressor in this study). For example, English language proficiency is a more important determinant of international student adjustment than age, sex, marital status, or education (Yang & Clum, 1994) and is a very important aspect of cultural adaptation. Furthermore, difficulties in cultural adjustment (e.g., American food, music, entertainment) have also been studied among African students (Puritt, 1978). High academic achievement and performance is a critical stressor for these students because they have higher expectations for academic success (most rank in the top levels of their native country’s schools), and added pressure to maintain scholarship and financial support (Svarney, 1991).
Negotiating basic academic procedures and living arrangements are daunting tasks for some international students. Kher et al. (2003) describes how many support services in American institutions [including admission, registration, residence life, and dining] poorly accommodate international students, despite the greater needs of international students. Studies from other nations have similar findings. In a study of international students in the U.K., Pritchard and Skinner (2002) international students have major difficulties in forging meaningful social relationships. Different dietary requirements, views regarding sexual openness, perceptions of time, and gender roles are just a few of the cultural adjustments that international students encounter.

International students confront an array of cultural adjustments, but the responsibility is often left to the student to adjust and adapt to the host culture (Bevis, 2002), rather than to the institutions to accommodate their unique needs. Similarly, Lloyd (2003) reports that housing accommodations, a lack of social support, confusing enrollment procedures, and inadequate support services are among the basic problems faced by international students at an Australian university. Another Australian study (Robertson, et al., 2000) reports that language, tuition cost, and feelings of isolation ranked the highest among problems faced by international students.

Several authors have attempted to study the nature of psychological difficulties of international students (Sandhu & Asrabadi, 1994). In one of the earliest studies concerning international students, Klineberg and Hull (1979) identified personal depression, homesickness, and loneliness as major concerns. Many other researchers have determined that high levels of anxiety is a major issue international students face (Pedersen, 1991; Ward, 1967); as well as stress, frustration, fear, and pessimism (Dilard & Chisolm, 1983); perceived alienation and
racial discrimination (Heikinheimo & Shute, 1986); loneliness (Schram & Lauver, 1988); and psychosomatic disorders (Thomas & Althen, 1989).

International students usually experience a kind of culture shock (Oberg, 1960). This may impact several aspects of their lives, such as dining habits, table manners, personal status, and the meaning of friendship (Kineberg & Hull, 1979). Studies of international student adjustment address a great range of problems that encompass the pressures created by new roles and behavioral expectations, language difficulties, financial problems, social difficulties, homesickness, difficulties in dealing with university and other authorities, academic difficulties, and lack of assertiveness inside and outside the classroom (Charles & Stewart, 1991; Hayes & Lin, 1994; Barratt & Huba, 1994; Parr, Bradley & Bingi, 1992).

Prior research illustrates that foreign students have more difficulty adjusting than local students both academically (Ramsay, et al., 1999) and socially (Hechanova-Alampay, et al., 2002; Jacob & Greggo, 2001; Lewthwaite, 1996; Rajapaksa & Dundes, 2002).

**Acculturation, Culture Shock, and Food Consumption**

**Acculturation**

The original definition of acculturation is presented by Redfield, Linton, and Herskovits (1936, p.149), stating that “acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups.” Acculturation level is the degree to which a person adapts to a new culture; it involves several variables such as cultural identity, language, religion, and social activities (Hui, Kim, Laroche, & Joy, 1992; Jun, et al., 1993).
The attitudes immigrants hold towards acculturation and the strategies they might employ to deal with their situation have been classified by Berry (1974, 1980). According to Berry, two dimensions are relevant for acculturation strategy choice: the newcomers’ desire to maintain their original culture, and their desire to have relationships or contact with members of the host society. The combination of these dimensions of culture maintenance and contact can be separated into four distinct acculturation strategies: integration, separation, assimilation, and marginalization. If immigrants wish to maintain their original cultural identity, and are interested in interacting with host community members simultaneously, the resulting acculturation strategy is integration. If immigrants want to maintain their original identity, but do not want to engage with members of the host society, a strategy of separation results. Immigrants aim at assimilation if they abolish their original cultural identity and, at the same time, seek contact with members of the host community. Finally, if immigrants reject both their original culture and show no interest in having relations with members of the host community, marginalization will result (Zagefka & brown, 2002).

Most studies have highlighted a strong tendency for immigrant groups to favor integration (Berry, 1997; Van Oudenhoven, Prins, & Buunk, 1998; Van de Vijver, Helms-Lorenz, & Feltzer, 1999). Furthermore, integration has been shown to be the most effective adaptive strategy in many settings since it is associated with the best acculturative outcome (Berry, Kim, Minde, & Mok, 1987; Liebkind, 1996; Berry, 1997; Liebkind, 2001). In contrast, marginalization, with its negative orientations on both the culture maintenance and contact dimensions, is likely to produce the worst acculturative results (Berry, 1997).

According to Gordon (1964), Garza and Gallegos (1985), Domino and Acosta (1987), Marin and Marin (1990), and Negy and Woods (1992), there is a negative relationship between
acculturation and language, customs, identity, attitudes and behaviors of an individual’s native culture. For example, many temporary residents and expatriates who live overseas will experience several problems in fully acculturating; however, they usually only adopt the attitudes, norms, and behaviors they feel are acceptable in their native culture.

Among ethnic groups, the background of culture also influences the acculturation framework; this is used to show changes in the patterns of immigrants after they have lived in a new cultural environment for a certain period of time (Berry, 1980; d’Astous & Daghfous, 1991; Gentry, Jun, & Tansuhaj, 1995; Padilla, 1980; Penaloza, 1994). Researchers in several disciplines [such as anthropology, sociology, social psychology, and consumer behavior] are inherently interested in examining the impact of immigration and resettlement in relation to consumption experiences of immigrants in new cultural environments (Berry, 1980; d’Astous & Daghfous, 1991; Gentry, Jun, & Tansuhaj, 1995; Padilla, 1980; Penaloza, 1994; Crispino, 1980; Gordon, 1964; Hui, Kim, & Laroche, 1992; Wallendorf, & Reilly, 1983). According to Moschis (1987), mental and behavioral outcomes are interconnected in the sense that mental outcomes have direct impacts on behavioral outcomes. Furthermore, a sense of ethnic identity is directly correlated to the strong consumption patterns of immigrants (Deshpande & Stayman, 1994; Hirschman, 1981; Valencia, 1985) as well as culture-specific consumption behavior (Penaloza, 1994; Wallendorf & Reilly, 1983).

People of specific cultures tend to accommodate their experiences from their physical and social interaction into certain psychological mentalities about what is and is not appropriate (Lillis & Tian, 2010). In other words, what is called cultural identification; this is the degree to which an individual’s ethnic identification conforms to their native culture and it also represents an individual’s perception of belonging to an ethnic group (Jun, et al., 1993).
**Culture Shock**

Oberg's (1960) early definition of culture shock is that “culture shock is precipitated by the anxiety that results from losing all our familiar signs and symbols of social intercourse” (p. 177). P. Adler's (1975) definition of culture shock is psychologically more descriptive and explanatory: “culture shock is primarily a set of emotional reactions to the loss of perceptual reinforcements from one's own culture, to new cultural stimuli which have little or no meaning, and to the misunderstanding of new and diverse experiences. It may encompass feelings of helplessness, irritability, and fears of being cheated, contaminated, injured or disregarded” (p. 13).

Culture shock occurs when immigrants face unfamiliar cultural environments that provide new stimuli for which appropriate behavioral responses have not been learned (Kaye & Taylor, 1997). Differences in expectations, language, foods, dining etiquette, the concept of personal space, etc., often produce stress because they may seem neither understandable nor ethically “correct’ (Adler, 1986). Walton (1990) suggests that adaptation to a new overseas setting usually begins with a period of excitement, followed by disillusionment, and then a state of culture shock. This shock is a stress reaction that occurs when salient physiological and physical rewards are generally uncertain and difficult to control or predict. Thus As a result, an immigrant remains anxious, confused, and sometimes apathetic or angry until they’ve had time to develop a new set of behavioral assumptions that aid in understanding and predicting the social behavior of local people (Weissman & Furnham, 1987).

It is accepted phenomenon that everyone who travels internationally experiences some form of culture shock (Kaye & Taylor, 1997). All travelers have to deal with psychological strain, a sense of loss, rejection, confusion, surprise, anxiety, or feelings of impotence.
(d'Ardenne & Mahtain, 1989). Simons et al. (1993) note that there are three responses to culture shock. There can be resistance: the rejection of the new culture and a powerful defense of personal traditions. There can be assimilation: the complete rejection of personal values in order to embrace those of the new culture. There can be acculturation: learning to live with the new culture while remaining rooted in individual traditions.

“Shock” is understood as the stimulus required for the acquisition of culture-specific skills needed to engage in new social interactions (Zhou, et al., 2008). “Shock” stems from inherently stressful life changes; therefore, people engaging in cross-cultural encounters must be resilient, adaptive, and able to develop coping strategies (Zhou, et al., 2008). The process of adaptation is influenced by a number of variables; these include a general knowledge about new cultures (Ward & Searle, 1991); length of residence in the host culture (Ward, et al. 1998); language or communication competence (Furnham, 1993); quantity and quality of contact with host nationals (Bochner, 1982); friendship networks (Bochner, McLeod, & Lin, 1977); previous experience abroad (Klineberg & Hull, 1979); cultural distance (Ward & Kennedy, 1993); cultural identity (Ward & Searle, 1991); acculturation modes (Ward & Kennedy, 1994); and cross-cultural training (Deshpande & Viswesvaran, 1992).

**Culture and Food Consumption**

According to Onuorah & Ayo (2003, p. 235), dining habits are determined by “values, beliefs, and environmental and religious circumstances, all of which are products of tradition, culture, and contacts.” The way people prepare and consume their food expresses their cultural values and social system (Murcott, 1982). Murcott (1982) further states that “human beings belong to the world both human and culture… Food is a mediator because we eat, we establish, in a literal sense, a direct identity between ourselves (culture) and our food (nature)” (p.204).
According to Gochman (1997), culture distinguishes what we eat, how food is obtained, who prepares it, where, when, and with whom it is consumed. People arrange their food dining habits into structured systems according to the cultural system (Counihan, 1999).

Food has been associated with several symbols; these symbols include food as gifts, as types of payment, ritual practices, or as an act of ending hostility (Schivelbuch, 1992). Different cultures have different norms and perceptions regarding their food (Menell, Murcott, & Otteloo, 1992). Traditional cultures usually associate food with the preservation or loss of actions and perceptions of culture and origin (Laroche, Kim, & Tomink, 1998). For example, communal dining and drinking often reflects social attitudes, personal relationships, and hierarchies (Garnsey, 1999).

The ways in which people think about food differ depending on cultural ethnicity. For example, according to cross-cultural studies (e.g., Rozin, et al., 1999; Chandon, et al., 2000), French natives consider pleasure an important element in choosing food, while Americans generally consider food a source of energy; food safety is also a critical factor in selecting food.

Among the many distinct aspects of culture that represent national identity, food is considered a common qualifier since food can act singularly as a cultural symbol (Edles, 2004). It has been observed that food has the ability to aid in better understanding foreign cultures and can bridge cultural barriers (Cook, 1997). Food is a cultural symbol (Edles, 2004); it is one of the cultural characteristics that human beings discover the importance of early in childhood. At more mature ages, people do not change their mindsets as easily (Gabaccia, 1998; Cervellon & Dube´, 2005).
Ethnicity is not only an integral characteristic of an individual, but it is also a process of group identification in which people use ethnic labels [that involve aspects like opinions, cognition, affect, and knowledge] to define themselves and to define others (Rossiter & Chan, 1998; Jamal & Chapman, 2000). The retention of language and food preferences, as well friendship networks, are among the most accepted dimensions of ethnic identity (Laroche, et al., 1999). Ethnicity affects consumer behavior through personal dress style, musical preferences, recreational activities, and the consumption of food and drink (Bocock, 1993, p.80). These factors have a strong impact on customers, especially in other countries; the unique elements of ethnic foods distinguish them from the local cuisine (Chandon, et al., 2000; Peabody, 1985; Leclerc, et al., 1994).

Socio-cultural changes [changes that are related to changes in lifestyle and values] have also been demonstrated to be relevant to food consumption. Meulenberg and Viaene (1998) define three major trends in food preferences, which are the result of these changes. The first of these being the replacement of simple traditional dishes prepared from raw, household products with refined, industrially produced food; second, the disappearance of seasonal cycles in food consumption; third, a preference towards “exotic” [or ethnic] food (Meulenberg & Viaene, 1998). The most common ethnic food consumers tend to be younger, employed, and living predominantly in major metropolitan areas, cities, and suburbs (Sloan, 2001). For most individuals, ethnic foods not only provide adventure, but also emotional mobility. Exotic flavor has the ability to transport consumers to desired places; it commonly evokes memories of vacations to unusual locations, reflects and strengthens friendships, and promotes openness to new cultures (Verbeke & Lo´pez, 2005).
Cultural factors tend to influence nutritional acculturation, independent of exposure to host cultures or changes in psychosocial and environmental factors (Satia, et al., 2002). Numerous studies have specifically linked the degree of acculturation of individuals to food preferences and consumption manners; for example, the acculturation of Hispanics to food choice and dietary patterns (Bermudez, et al., 2000; Bermudez, et al., 2000; Lin, et al., 2003; Mazur, et al., 2003; Neuhouser, et al., 2004). The acculturation of Hispanics to the Belgian culture is hypothesized to influence Hispanic adoption of mainstream Belgian food. Similarly, it is hypothesized that Belgian openness to new cultures [including social interaction with immigrants] influences their acceptance of ethnic foods. Cultural food research over the past several decades has attempted to explain attitudes of certain cultures toward their own culture-specific foods (Axelson, 1986; Rozin, 1976; Solms & Hall. 198), to examine cross-cultural flavor preferences (Pangborn, 1975; Meiselman & Bell, 1991), and to study the effects of situational ethnicity in addition to group and familial influences in food preference (Stayman & Deshpande, 1989; Krondle & Lau, 1982; Rozin & Millman, 1987).

For example, with the arrival of international students in Australian universities, more Australian households are exposed to Asian cuisine; particularly Chinese, Malay, Indonesian, and Southern Asian cooking techniques; they subsequently learn from the students boarding with them (Wahlqvist, 2002).

Research has shown that immigrants are less likely to be overweight or obese upon arrival in the host country; although there are marked ethnic variations, they slowly converge to native-born levels (McDonald & Kennedy, 2005). For instance, there has been an abundance of research indicating that the health of a Latino diet deteriorates during the acculturation process (Ayala, et al., 2008); this has begged the question of whether acculturation makes people sick.
(Pe´rez-Escamilla, 2009). Other research has revealed that Pakistani and Sri-Lanka natives, who immigrated to Norway, significantly changed their meal patterns from three hot meals per day to one-and-a-half; this modification occurred in order to conform to the host country’s norms, primarily because of changes in work patterns and climate considerations (Wandel, et al., 2008).

However, Asian students within the U.S., who had resided there at least three months before the start of their studies, reported that the number of meals consumed per day decreased; nearly half skipped breakfast more than other meals. Substantial increases were observed in the consumption of fats, salty and sweet snack items, and dairy products; significant decreases in the consumption of meat, meat alternatives, and vegetables. They also dined out less often, but when they did, they chose American fast food establishments (Pan, et al., 1999).

From a corporate perspective, cultural influences are clearly important (e.g Venkatesh, 1995; Jeannet & Hennessey, 1998; Johansson, 2000). The idea that food preferences are shaped by childhood experiences, family norms, and socialization processes is supported by Fowler (1997) who also observed that “supposedly natural tastes are in fact founded on social constructions which have been elaborated over generations.”

**Services Provided by Universities to Support International Students**

As a service provider, the university is defined by the quality of service it provides (Slade, et al., 2000). Within the higher education sector, the services offered and the way in which they are offered may serve as a form of competitive differentiation for educational providers.

While an institution cannot address all problems associated with transitions to new cultures, having more awareness of the painful adjustment journey often made by international
students may better inform the institution of what kind of support to provide (Brown & Holloway, 2008; Louie, 2005). Not only would the delivery of adequate pastoral and academic support improve student retention, but it would also lead to positive word of mouth and increased recruitment (Ward, 2001). Indeed, it is increasingly acknowledged that if institutions do not consider international student needs, their future recruitment may be endangered (Brown & Holloway, 2008; Ryan & Carroll, 2005).

Celona (1982) used a semi-structural interview method to question 25 foreign students in regard to their experiences as undergraduates in three colleges. Students were questioned about recruitment, orientation, adaptation and acculturation. The results indicate that there is a positive relationship between orientation and adaptation; the better the orientation, the easier the adaptation to American educational systems. Another study by Bulthuis (1986) demonstrates the need to give international students orientation into student-faculty relationships and behavior in classrooms after arrival.

Few students reported problems with daily activities such as banking and food. Individual programs may consider social gatherings during the first of week of school to acquaint new graduate students with returning graduate students and faculty. This might help reduce the alienation and feelings of isolation many new international graduate students experience (Goplerud, 1980; Bulthuis, 1986).

One of the mediators of stress is the degree of social support an individual experiences (Thoits, 1982). Social support provides a powerful coping resource for students experiencing stressful life changes, including adjusting to an unfamiliar culture (Mallinckrodt & Leong, 1992). The benefits of social support in personal adjustment has been well documented (Cohen & Wills, 1985; Sarason & Pierce, 1990). Additionally, perception of social support has a stronger
influence on mental health (stress outcomes) than the actual receipt of social support (DunkelSchetter & Bennett, 1990; Wethington & Kessler, 1986).

International students usually seek assistance and support from friends, families, and other co-nationals (Bulthuis, 1986; Leong & Sdlichek, 1986). Support and deep cross-cultural friendships from fellow American students are rarely reported (Bulthuis, 1986).

Schram and Lauver (1988) conducted a quantitative study of international student alienation (described as powerlessness, meaninglessness, and social estrangement) in the U.S.; they found that social contact with host nationals, graduate student status, and Europe as a home region, negatively correlated with alienation. To decrease alienation, they suggest improving institutional orientation and intervention practices, such as creating “buddy” programs and explaining informal channels of communication. They also recommend investigating the types of circumstances that are “bewildering” to international students; this could lead to better advisement on the part of international student services. They also suggest that strategies can be tailored to specific cultural backgrounds, such as African or Asian.

Several universities in the U.S. have developed special programs to help support their international students. The Office of International-Intercultural Student Service (OIS) at American University in Washington, D.C. has conducted a project regarding its international students. A group of graduate students in Intercultural Communication were randomly interviewed. Results from this study identified the following top needs of international students: cultural variety in foods and dining areas, financial aid, employment opportunities, work experience in field before returning home, dealing with financial difficulties, and involvement of American students in international activities. Based on these findings, the OIS at The American University has developed a number of specific activities; these include emergency financial
assistance, updating international student resource guides and international student handbooks, jointly developing international job fairs with career centers [which over 2,000 international students from the Washington, D.C. metropolitan area attended], and holding a series of biweekly workshops on how to find employment and practical training opportunities.

**Ethnic Food**

The Food Marketing Institute (1998) defines ethnic food as a product that a particular ethnic (racial, national) or cultural group favors. Internationally, people from different cultural origins and demographic groups express [to some extent] their differences through the foods they eat (Senauer & Kinsey, 1991). All elements of ethnic food markets across Europe are constantly growing (O'Carroll, 1997). In Great Britain, the ethnic food sector is becoming an increasingly important area for the large restaurant sectors; this innovation forms an important component of quality as a consumer searches for novelty and excitement (Peacock, 1998).

The U.S. is a multicultural and multiethnic nation; this national trend of diversity is expected to continually increase (Josiam & Monteiro, 2004; Sukalakamala & Boyce, 2007). One reflection of this cultural and ethnic diversity is the variety and prosperity of ethnic restaurants in the American foodservice industry. Many ethnic cuisines have moved beyond the phase of being merely trendy and have made a permanent mark on American menus. Consumer interest and acceptance of ethnic foods continues to expand; this reflects the increasingly pluralistic composition of the contemporary society of the U.S. (Crest, 1997). Increased interest in ethnic foods is a reflection of the constantly changing cultures of consumers. This is a result of the contact between individuals from different cultural backgrounds (Iqbal, 1996). The growing cultural diversity of the U.S. is certainly influencing American’s taste in ethnic foods (Papadopoulos, 1997). The process of dining is not merely to satisfy hunger and nutritional
needs, but also to fulfill social obligations; it is even considered a symbol of status. In fact, in 2009, restaurant industry sales exceeded $566 billion (NRA, 2008).

Population trends indicate that immigration to the U.S. has resulted in the diversification of food selection and new ethnic food combinations, which has created increases in food consumption per capita (Pierides, G., 1986). As ethnic populations of the U.S. continue to increase, so do demands for authentic ethnic foods as Americans are introduced to food from around the globe (Hensley & Bohm, 2000; Howell, 2005). Over half of surveyed Americans in Hensley & Bohm’s (2000) study indicated that they frequently eat ethnic foods; 90% indicated that they are familiar with various types of ethnic foods.

One of the major trends in the restaurant industry is the increasing number of ethnic restaurants. During the past 11 years, Italian, Mexican, and Chinese cuisines have all become very popular; they are now considered mainstream in American culture (Hensley & Bohm, 2000). In the past, ethnic restaurants have grown significantly in the U.S. foodservice industry. In the 1980s, ethnic restaurants accounted for only 10 percent of all restaurants in the U.S. (Gabaccia, 1998). Their share increased to 33 percent by 1997, generating $29.5 billion in annual sales in the U.S. (Ebster & Guist, 2004). In 2005, ethnic restaurants created sales of $48.75 billion; this trend is expected to increase in the next few decades (Euromonitor International, 2006).

Ethnic themes are a natural result of their heritage; this not only creates a unique and powerful identity to differentiate the restaurant from its competitors, but it also constitutes an incentive for customers to seek extraordinary dining experiences (Ebster & Guist, 2004; Lego, et al., 2002). For many local customers, ethnic restaurants serve as their only contact with foreign cultures. Therefore, authentic food and atmosphere are basic expectations for ethnic restaurants.
Thus, authenticity can be an important attribute within the ethnic restaurant sector to achieve these goals (Cobe, 2004; Wood & Munoz, 2007). Americans are increasingly being exposed to ethnic cuisines when they dine out. According to Mintel’s consumer survey, 84 percent of Americans had consumed at least one ethnic meal in the past month of the survey (Mintel Oxygen Reports, 2009).

Finkelstein (1999) notes that food habits are inseparable from the culture that a person inhabits and that these habits vary from culture to culture. Consequently, some degree of food shock is inevitable upon moving to a culturally dissimilar country (Brown, Edwards, & Hartwell, 2010).

There has been little research dedicated to the study of international student eating habits; studies by Henry and Wheeler (1980), Zwingmann and Gunn (1983) and Hall (1995) are rare, but old examples. Given the increase in international student numbers in recent decades, the changing source markets, and changing receiving and origin societies, there is a clear need for more contemporary research that is pertinent to new conditions. All previous studies concluded that food habits and practices represent a central element of culture, and that it is anticipated that travelers would struggle to break away from their habituated food choices. This was confirmed in a more recent ethnographic study of the international student adjustment process, in which food emerged as a major research category (Brown, 2009). It was shown that dietary habits were of great importance both emotionally and physically; it was also an aspect of student life that was least open to change.
Chapter III

Methods

Research Considerations

As mentioned previously, the primary objective of this research is to investigate the importance of ethnic food to international college students in the U.S. The benefits that international students bring to universities have been studied in prior research. The main categories of these benefits are: economic, political, educational, and cultural. Because of these advantages of international students, the retention and attraction of international students have become an important issue. Therefore, differentiation between universities is crucial to competition and the attraction of more international students.

One issue that could be considered as a competitive advantage that distinguishes universities among others is the inclusion of ethnic food into on-campus dining services. Specifically, this research seeks to investigate the effect of the inclusion of ethnic food into on-campus dining options and the future behavioral intentions and the self-reported personal health of international students. In addition, this research aims to identify the reasons underlining the importance attached to ethnic food, examines the current perceptions about the availability and quality of ethnic food restaurants and retailers that sell ethnic food ingredient in the U.S. And finally, identifies the ethnic food dining habits of international students.
Research Questions

Since there is a lack of research that specifically addresses the role ethnic food plays in the lives of international students across American educational institutions, further investigation into the importance of ethnic food to international students is needed.

Based on a review of relevant literature and two focus groups, it was indicated that ethnic food may play a role in the lives of international students. This issue becomes even more significant when it comes to the future behavioral intentions of international students. This was discovered during the focus groups when almost all participants mentioned they would prefer that universities include ethnic food services into on-campus dining options. All participants indicated that the inclusion of ethnic food is an issue they would mention as advantage of the university when it comes to recommendations and communicating positive things to other international students. This reoccurring theme obtained from the focus groups led to postulating question number one in this study.

1) To what extent is the inclusion of ethnic food into on-campus dining options associated with international student’s future behavioral intentions?

Many participants in the focus group sessions reported that their health has suffered because of the lack of ethnic food. One participant stated that he had surgery to lose weight because the food he used to consume before coming to the U.S. is not available neither on nor off-campus. In connecting this occurrence with future behavioral intentions, the student said that, based on this, he would not recommend the university to others since ethnic food represents something more than only fulfilling hunger. With this in mind the second question has been developed as follow-up.
2) To what extent is the inclusion of ethnic food into on-campus dining options associated with international student’s self-reported personal health?

When asked what ethnic food represents for each individual participant, varied levels of attachment to ethnic food were indicated in the responses. The answers were diverse. Some participants revealed a strong relationship between ethnic food and faith; they stated they were not allowed to eat all types of food because there are regulations that control their consumption. On the other hand, faith was not as significant for some of them. Some participants mentioned that the most important thing ethnic food represents is their culture. Others mentioned that ethnic food helps in evoking memories from home and helps in mitigating homesickness. Because of these different answers, it was found that asking what ethnic food represents for students would be a reasonable question. The answer to this question could help both the university administrators [for those who have on-campus food options], and ethnic food operators to focus exactly on the aspects that international students consider the most when they consume ethnic food. In response to this, the third question was postulated.

3) What are the reasons which underline the potential importance attached to ethnic food by international students in the U.S.?

To examine the current perceptions of the availability and quality of ethnic food restaurants and retailers that serve ethnic food ingredients, a fourth question has been developed. The rationale behind this fourth question consists to two facets: first, some participants in the focus groups stated that they often leave their host town on a regular basis to fulfill their ethnic food needs; specifically, to either dine at ethnic food restaurants or purchase ethnic food ingredients for personal cooking. Secondly, no previous research has addressed this issue.
4) What are the current perceptions held by international students about the availability and quality of ethnic food restaurants and retailers in the U.S.?

A fifth question was formulated to identify the ethnic food habits of international students. The result of this question could be helpful in the business community; especially in the areas surrounding university campuses. So the following question was constructed:

5) What are the ethnic food dining habits of international students in the U.S.?

Methodological Overview

In general, there is an obvious lack of research in ethnic food. From the perspective of international students in the U.S., this research is among the first studies that addresses this issue. Because of this, it was discovered that both qualitative and quantitative research are necessary to establish a base of information to be used in future research within this area. In order to generalize the results of this study, the researcher chose ten public universities from each region across the U.S. The list containing these universities was sent to the Office of International Education at Auburn University to contact and invite those universities to participate. The goal was to increase the sample size and, as a result, obtain results that accurately represent different regions across the U.S.

Qualitative and Quantitative Research

Mixed method research is a means of collecting and analyzing data that is both qualitative and quantitative in a single study or in a series of studies, based on priority and sequence of information (Creswell, 2003; Tashakkori & Teddlie, 2003). According to Denzin and Lincoln (2005), “the word qualitative implies an emphasis on the qualities of entities and on processes and meanings that are not experimentally examined or measured in terms of quantity,
amount, intensity or frequency” (Denzin & Lincoln, 2005, p. 10). Qualitative research is designed to answer questions that relate to how social experiences are created and given meaning; this is in contrast to quantitative methods, which emphasize the measurement and analysis of causal relationships between variables, not the actual process (Denzin & Lincoln, 2005, p. 10).

According to Lee and Ormord (2005, p. 95), these different research methods can be defined in the following ways:

quantitative research is used to answer questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena. In contrast, qualitative research is typically used to answer questions about the complex nature of phenomena, often with the purpose of describing and understanding the phenomena from the participant’s point of view.

Such differences between both types of research exist. Usually, in qualitative research, the purpose of the study is to understand and interpret certain social interactions. The variables tend to be small and not randomly selected; the type of data collected consists of words and images. The form of data collected includes, but not limited to, open-ended questions, focus groups, and interviews. On the other hand, quantitative research is used to test hypotheses, review at cause and effect, and make predictions. In terms of group studies, they tend to be large and randomly selected. The type of data collected consists of certain variables and statistics; the type of data is based on validated instruments.

The design of this study includes both quantitative and qualitative methods. After following extensive literature review, an online survey was developed using Qualtrics Software.
Due to the lack of current research that addresses this study; two focus groups were used to solicit the opinions, thoughts, and ideas of participants regarding the inclusion of ethnic food into on-campus dining options, its impact on the future behavioral intentions, and the self-reported personal health of international students in the U.S. In addition, the researcher believes that international students could better express their opinions of this issue within the qualitative design. Indeed, the goal of the two focus groups was to gather participant’s thoughts and feelings in regard to the importance of including ethnic food into on-campus dining options.

**Cross-Sectional Studies**

Cross-sectional survey can only be administered one time. Therefore, participants of this study were asked to fill out the survey only once. Cross-sectional studies only evaluate a specific phenomenon at a certain period of time. As a result, the limits of the findings of the study are in terms of its application to the larger population and the fact that the evaluations of participants are constantly occurring and being changed. Using a cross-sectional study of this research was twofold: first, to capture a sample that represents the entire population, and second, to attain as large of a sample group as possible.

**Research Setting**

Several regions across the U.S. were initially identified as representing the country; subsequently, a list of public universities in each of these regions was prepared. A list of ten universities from each region was selected randomly. The list was sent to the Office of International Education at Auburn University for their assistance in collecting the data. An email was sent from Auburn University’s Office of International Education to the forty potential participating universities explaining and inviting them to participate in this study. Ten of them,
including Auburn University, agreed to participate. Out of the ten, six universities eventually participated. These universities represent the states of Alabama, Florida, Georgia, Illinois, Indiana, and Texas.

**Focus Group Work**

Two focus groups were conducted for the purpose of this study. As mentioned previously in this research, there is a lack of literature in ethnic food and its impact on international students in the U.S. To the knowledge of the researcher, this research is among the very first research projects that address this issue.

Hyden and Bulow (2003) indicated that focus groups “have often been regulated as a means for obtaining access to people’s experiences, attitudes and views.” Using focus groups is an effective way of gathering relevant information; it is also helpful in making this section of the survey understandable. According to Lehoux, Poland, and Dandelin’s study (2006), the size of focus groups is usually varied and they suggest that the ideal size of focus group should be six to twelve people.

For the present study, a list of topics was prepared in advance of the focus group sessions, covering broad ethnic food-related issues: the importance of ethnic food to the participants as international students, their ethnic dining habits, the relationship between ethnic food and future behavioral intentions, the relationship between ethnic food and participants self-reported personal health, the availability and the quality of ethnic food restaurants in the U.S., the availability and the quality of ethnic food retailers who sell ethnic food ingredients for cooking in the areas surrounding participant residences in the U.S.
The first focus group session took place in a private conference room in the College of Human Sciences at Auburn University. Ten international students were invited to participate; six were able to do so. Participants represented several regions around the world [Jordan, Kuwait, Saudi Arabia, China, and Korea]. The researcher asked questions, facilitated discussions, and encouraged participation between group members. The focus group was recorded and the researcher took notes manually. The total time of the focus group session was approximately 90 minutes. The second focus group was held at the Auburn University Student Center during the weekly social hour for international students. Throughout this hour, international students gathered to enjoy food, socialize, talk to each other and American students, and participate in the activities being held. Notes were taken throughout the first focus group, but a tape recording was not conducive because of the noise level. Six international students participated; they represented different regions across different areas of the world including India, Pakistan, China, Korea, and Bangladesh.

After collecting this data, it was transcribed and synthesized into related categories. The results of the analysis were used to formulate the survey instruments and questions.

The Research Sample

The target population for this study consisted of international students enrolled in universities across different regions of the U.S. The sample was intended to represent the general population of international students as much as possible. The survey was sent in collaboration with the Office of International Education at Auburn University. The following criteria was used to select participants:

1. Must be 19 years of age or older.
2. Currently enrolled in the participating university.

3. Listed by their university as an “International Student.”

Adequacy of Sample Size

The number of usable surveys in this study was 269 and responses were collected online using Qualtrics Software. Because the number of international students in each participating university was unknown and the responses were collected online, calculating the response rate was impossible. Returned questionnaires that had one missing answer were not used.

The Research Instrument

A self-administered online questionnaire was developed for this study following an extensive review of the relevant literature, conducting two focus groups, and pilot testing.

The questionnaire was comprised of four sections. The first section asked respondents to provide demographic and socioeconomic data such as age, gender, ethnicity, marital status, and educational level. The second section of the survey was prepared based on the findings of the two focus groups in which participants were asked to evaluate the availability and quality of ethnic food restaurants and retailers that sell ethnic food ingredients for ethnic cooking. Additionally, health-related questions were added to the survey in response to the insights gathered during the focus group session about how the lack of access to ethnic food may negatively impact health. The second section also inquired into the dining habits of respondents, such as whether they prefer to dine out, cook at home, and how often they eat out. The third section was designed to identify the importance attached to ethnic food. The questions in this section were taken from the focus group contexts. A number of questions were developed
according to their responses; for instance, how ethnic food is related to factors such as faith, culture, diet, and national identity.

The fourth section asked respondents to report their future behavioral intentions. The items used in this section are modified from (Zeithaml, et al., 1996), and included the three items of: “I would recommend my university to other international students,” “I would say positive things about my university to other international students,” and, “I would be happy to continue my education at my university.”

**Survey Administration**

Administering the survey took several steps. First, the researcher received permission from the Institutional Review Board (IRB) at the researcher’s institution. Secondly, the researcher contacted and coordinated with the staff responsible for international admissions at the researcher’s institution and at participating institutions. Thirdly, a cover letter was sent via email to participating schools that explained the purpose of this study and contained a link to the survey.

An online survey instrument was employed for data collection because of its effectiveness in terms of cost, response rate, and convenience (Dillman, 2000; Shannon & Bradshaw, 2002). *Qualtrics Software* was used to collect data. Four hundred and eleven (411) questionnaires were received, 269 of which were usable. Returned questionnaires that have one missing answer were not used. Data collection for this study occurred from August 27th to September 21st of 2012. The Office of International Education at Auburn University sent out an email to all international students containing the online survey. The same email was also sent out to the 10 universities that initially agreed to participate. Students were guided to the website by
email containing a hyperlink to the uniform resource locator (URL). Results of each survey were kept confidential in the database of the researcher’s account on the website of *Qualtrics*.

People use Facebook to stay connected with friends and family, to stay updated about what is going on in the world, and to share what matters to them (Facebook, 2012). In 2012, more than one billion people were active on Facebook (Facebook, 2012). In this study, Facebook was used to collect data. People use Facebook to stay connected with friends and family, to stay updated on what is going on in the world, and to share what matters to them (Facebook, 2012). In 2012, more than one billion people were active on Facebook (Facebook, 2012). In this study, Facebook was used to collect data. Facebook was used as a supplemental method to gather data from target students in what thought would be a convenient mode for them to participate in the study.

**Measurement of Variables**

Due to the lack of literature in ethnic food in general and from the perspective of international students in the U.S. in particular, the findings of the focus group sessions were particularly important in the development of the variables used in this study. The measurement approach for several of these variables was based on previously validated methods.

**Pilot Testing**

Two pilot tests were employed before sending the final survey version: five international students received the survey through emails that requested them to give their feedback. The purpose of this pilot test was to get feedback from participants in terms of the survey content, questions, clarity, time of completion, and general understanding of survey items.
Based on the feedback gathered from the participants about relevance and clarity issues in the survey questions, a number of modifications were made to the survey. These changes included rewriting questions, shortening the length of the survey by combining several questions into one category, and, as a result, the completion time of survey was condensed.

**Statistical Analysis**

The returned questionnaires were coded into the Statistical Package for Social Sciences (SPSS) 21. Descriptive and frequency analyses were used to describe the characteristics of the sample. An independent t-test was used to test the differences between the universities who provide on-campus ethnic dining services and those who do not, as well as the future behavioral intentions of international students. The same independent t-test was also conducted to test the differences between two types of universities and the personal self-reported personal health of international students. Mean scores and standard deviation were used to interpret the importance attached to ethnic food and to examine the current perceptions about the availability and quality of ethnic food. Lastly, the mean scores and standard deviation were also used to identify the ethnic food dining habits of international students in the U.S.

**Ethical Considerations**

Prior to starting the study, the researcher obtained the IRB approval from the Institutional Review Board of Auburn University. The researcher and the committee members are CITI (Collaborative Institutional Training Initiative) trained and possess the required certifications to conduct social and behavioral research on human beings.
Summary

In summary, this chapter presents the research methods used in this study. The process of developing the survey instrument was provided and discussed along with the statistical procedures. The next chapter contains the actual data analysis and the results obtained from this analysis in the study.
Chapter IV

Results

This chapter presents the results obtained in the present study and is divided into several sections. Presented first is the demographic information of the respondents, followed by an examination of the relationships between ethnic food into university on-campus dining options with international student’s future behavioral intentions and student’s self-reported personal health. Mean scores and standard deviations were used to identify the reasons that underline the potential importance attached to ethnic food. These methods were also used to examine perceptions international students have about the availability and quality of ethnic food restaurants, retailers, and in the immediate area surrounding university campuses. Lastly, they were used to identify the ethnic dining habits of international students in the U.S.

Characteristics of the Sample

Table 1 reveals the demographic profile of the sample. A total of 411 questionnaires were received, 269 of which were valid to be analyzed. Male respondents accounted for 60.2% of the sample and female respondents accounted for 39.8%. The majority of the respondents were between the ages of 21 to 25 years of age (35.3%), followed by the category of 26 to 30 years of age (31.6%). The category of 20 years and under accounted for 9.3% of the sample, 4.5% of the respondents fell between the ages of 36 to 40 years, and only 3.3% of the sample fell between the ages of 41 and older. The majority of the sample (73.2%) identified their marital status as being single, 24.5% of the respondents were married, and less than 1% indicated they are divorced. In
terms of ethnicity, the majority of the respondents were Asian (32.7%), followed by Middle Eastern (20.8%). Asian-Indian consisted 18.6% of the sample, Caucasians counted for 9.3%, while Latin Americans consisted 6.3% of the respondents. The rest of the respondents (5.2%) chose “other” and provided a variety of ethnicities, such as Sri Lankan, Ukrainian, Brazilian, Nepalian, and European. African Americans counted for 3.7%, and a minority of the respondents was multi-ethnic (1.1%).

With regard to the highest education obtained, Bachelor Degrees were the highest among respondents (41.6%), followed by Master’s Degrees (35.7%). About 14.5% of the respondents answered “other” and provided different degrees such as high school, associate degrees, and post doctorate. Respectively, Ph.D. and Post Doctorates represented 5.6% and 2.6% of the sample. Approximately 37.5% of the respondents are currently enrolled as Ph.D. students, and 30.1% are currently Master’s students about one-fourth (25.7%) of the participants are currently pursuing their Bachelor degrees, 3.7% of the sample are pursuing their Post Doctorate, and only 3.0% chose “other”. About 28.3% of the participants indicated they have been in the U.S. for less than one year, followed by those who have been in the U.S. for more than four years (23.8%). International students who have been in the U.S. for more than 1 year, but less than two years, accounted for 16.7% of the sample, while students who have been in the U.S. for three to four years accounted for 16.4%. A minority of the respondents have been in the U.S. between two and three years (14.9%).
Table 1 Demographic Profile of Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>162</td>
<td>60.2</td>
</tr>
<tr>
<td>Female</td>
<td>107</td>
<td>39.8</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 &amp; Under</td>
<td>25</td>
<td>9.3</td>
</tr>
<tr>
<td>21 - 25</td>
<td>95</td>
<td>35.3</td>
</tr>
<tr>
<td>26 - 30</td>
<td>85</td>
<td>31.6</td>
</tr>
<tr>
<td>31 - 35</td>
<td>43</td>
<td>16.0</td>
</tr>
<tr>
<td>36 - 40</td>
<td>12</td>
<td>4.5</td>
</tr>
<tr>
<td>41 &amp; Older</td>
<td>9</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
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<td>100</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
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<td></td>
</tr>
<tr>
<td>Single</td>
<td>197</td>
<td>73.2</td>
</tr>
<tr>
<td>Married</td>
<td>66</td>
<td>24.5</td>
</tr>
<tr>
<td>Divorced</td>
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<td>0.7</td>
</tr>
<tr>
<td>Separated</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>88</td>
<td>32.7</td>
</tr>
<tr>
<td>Asian-Indian</td>
<td>50</td>
<td>18.6</td>
</tr>
<tr>
<td>Black or African American</td>
<td>10</td>
<td>3.7</td>
</tr>
<tr>
<td>Caucasian</td>
<td>25</td>
<td>9.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td>Latin American</td>
<td>17</td>
<td>6.3</td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>56</td>
<td>20.8</td>
</tr>
<tr>
<td>Multi-Ethnic</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100</td>
</tr>
<tr>
<td><strong>Highest Education Obtained</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>112</td>
<td>41.6</td>
</tr>
<tr>
<td>Master</td>
<td>96</td>
<td>35.7</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>15</td>
<td>5.6</td>
</tr>
<tr>
<td>Post Doctorate</td>
<td>7</td>
<td>2.6</td>
</tr>
<tr>
<td>Other</td>
<td>39</td>
<td>14.5</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100</td>
</tr>
</tbody>
</table>
As seen in Table 2, and according to the respondents, the majority of the participating universities (66.9%) do not have on-campus ethnic food services, and only 33.1% provide such services.

### Table 2 Availability of Ethnic Food in University On-Campus Options

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>89</td>
<td>33.1%</td>
</tr>
<tr>
<td>No</td>
<td>180</td>
<td>66.9%</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Reliability**

Cronbach’s Alpha (1951) is among the most commonly used reliability coefficient (Hogan, Benjamin & Brezinkisi, 2000). One attribute of alpha (Cronbach, 1951) is one type of internal consistency coefficient. Cronbach’s (1951) alpha was developed based on the need to evaluate items scored in multiple answer categories. For the purpose of this study the internal consistency between the items of the future behavioral intentions of participants was calculated.
The future behavioral intentions scale, which was adopted from (Zeithaml, et al., 1996), consisted of three items to which the respondents were asked to indicate the extent to which they are likely to behave/say positive statements about their university. Cronbach’s Alpha for the three future behavioral intentions was .901. As for the internal consistency among the variables of the availability and quality of ethnic food restaurants and retailers, the Cronbach’s Alpha was .807. The Cronbach’s Alphas for both measures were above the recommended .70 threshold (Nunnally’s, 1978).

**Addressing the Research Questions**

*RQ 1) To what extent is the inclusion of ethnic food into on-campus food dining options associated with international student’s future behavioral intentions?*

Before addressing this question of this study, the researcher found it would be appropriate to remind the reader of the percentage of universities who provide ethnic food in university on-campus food options and those who do not. According to the respondents of universities who participated in this study, the percentage of universities who provide ethnic food into university on-campus food options is (33.1%) compared to those who do not (66.9%).

To investigate the extent to which the inclusion of ethnic food into university on-campus food options is associated with the future behavioral intentions of international students, an independent *t*-test was conducted to compare differences between respondents from universities who provide on-campus ethnic food services and universities who do not. The result of the analysis is shown in *Table 3*. As can be seen in the table, there was a statistically significant difference in the scores for universities who provide on-campus ethnic food options (M=4.0524, SD=.77508) and those who do not (M=3.7500, SD=.97573). The test is statistically significant, *t*
(267) = 2.552, \( p = .011 \); that is, there is a statistically significant difference between both types of universities. This result suggests that the inclusion of ethnic food into on-campus food options is associated with the future behavioral intentions of international students in the U.S.

Table 3 \( t \)-test Analysis of Inclusion of Ethnic Food in On-Campus and FBI

<table>
<thead>
<tr>
<th>Ethnic food available in your university on-campus food court?</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-Value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>89</td>
<td>4.0524</td>
<td>.77508</td>
<td>2.552</td>
<td>267</td>
<td>.011</td>
</tr>
<tr>
<td>No</td>
<td>180</td>
<td>3.7500</td>
<td>.97573</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To further understand the role of each item of the future behavioral intentions, additional analysis was conducted. The mean score and standard deviation of each item was calculated and can be seen in Table 4. According to the results, all items achieved high mean scores, which indicate that the future behavioral intentions of international students are highly associated with the inclusion of ethnic food into university on-campus food options.

Table 4 Analysis of Future Behavioral Intentions

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Mean*</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would recommend my university to other international students</td>
<td>269</td>
<td>3.83</td>
<td>.990</td>
</tr>
<tr>
<td>I would say positive things about my university to other international students</td>
<td>269</td>
<td>3.93</td>
<td>.960</td>
</tr>
<tr>
<td>I would be happy to continue my education at my current university</td>
<td>269</td>
<td>3.79</td>
<td>1.080</td>
</tr>
</tbody>
</table>

*Measured on a 5-point scale, where (1) Strongly Disagree to (5) Strongly Agree
RQ 2) To what extent is the inclusion of ethnic food into on-campus food dining options associated with international student’s self-reported personal health?

To investigate the extent to which the inclusion of ethnic food into university on-campus food options is associated with the self-reported personal health of international students, an independent t-test was also used. The test was employed to assess whether there are differences in responses from respondents from universities who provide on-campus ethnic food options and universities who do not. The result of the analysis is shown in Table 5. As can be seen in the table, there was no statistically significant difference between universities who provide ethnic food on-campus food options and those who do not, $t(267) = 1.211, p = .227$; that is, there is no statistically significant differences between the responses obtained from both types of universities with regard to personal health. This result indicates that the inclusion of ethnic food into on-campus food options is not associated with the self-reported personal health of international students in the U.S. However, although statistically insignificant, the respondents from universities who provide on-campus ethnic food options (M=3.26, SD=1.061) indicated higher self-reported personal health than respondents from universities who do not provide similar services (M=3.09, SD=1.091).
Table 5 *t*-test Analysis of Inclusion of Ethnic Food into On-Campus and Self-Reported Personal Health

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-Value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic food available in your university on-campus food court?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>89</td>
<td>3.26</td>
<td>1.067</td>
<td>1.211</td>
<td>267</td>
<td>.227</td>
</tr>
<tr>
<td>No</td>
<td>180</td>
<td>3.09</td>
<td>1.090</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RQ 3** What are the reasons which underline the potential importance attached to ethnic food by international students?

*Table 6* shows the ranks and mean scores of the items related to the importance of ethnic food from the perspective of international students. Excluding faith, all other items have an average score of (3.40) and above, indicating that these items are important from the perspective of international students. The five most important items were: the relationship between ethnic food and culture (3.99), the role that ethnic food plays in evoking memories of home (3.75), the relationship between ethnic food and national identity (3.54), the availability of ethnic food acts as a remedy for homesickness and ethnic food provides a real sense of belonging were equal with mean scores of (3.51), and ethnic food is related to diet (3.40). These items show the prominent importance attached to ethnic food by respondents. The least important attribute was ethnic food as related to faith (2.32).
Table 6 Importance Attached to Ethnic Food

<table>
<thead>
<tr>
<th>Rank</th>
<th>Items</th>
<th>Mean*</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethnic food is related to my culture</td>
<td>3.99</td>
<td>1.022</td>
</tr>
<tr>
<td>2</td>
<td>Ethnic food helps in evoking memories of home</td>
<td>3.75</td>
<td>1.068</td>
</tr>
<tr>
<td>3</td>
<td>Ethnic food is related to my national identity</td>
<td>3.54</td>
<td>1.229</td>
</tr>
<tr>
<td>4</td>
<td>Ethnic food provides a real sense of my belonging</td>
<td>3.51</td>
<td>1.071</td>
</tr>
<tr>
<td>5</td>
<td>The availability of ethnic food is a remedy for homesickness</td>
<td>3.51</td>
<td>1.177</td>
</tr>
<tr>
<td>6</td>
<td>Ethnic food is related to my diet</td>
<td>3.40</td>
<td>1.192</td>
</tr>
<tr>
<td>7</td>
<td>Ethnic food is related to my faith</td>
<td>2.32</td>
<td>1.226</td>
</tr>
</tbody>
</table>

*Measured on a 5-point scale, where (1) Strongly Disagree to (5) Strongly Agree

RQ 4) What are the current perceptions held by international students about the availability and quality of ethnic food restaurants and retailers in the U.S.?

Table 7 shows the respondent’s perceptions of the availability and quality of ethnic food restaurants and ethnic food retailers that sell ethnic food ingredients for personal cooking in the U.S. In terms of the availability of ethnic food restaurants and retailers, respondents revealed a moderate average of the availability with mean scores of (3.12) for restaurants and (3.04) for retailers.

In relation to the availability of ethnic food restaurants, 47.2% of the participants mentioned that the availability of ethnic restaurants is fair, and 24.9% of which indicated that the availability is “good”. Respondents who reported a good availability consisted 18.6%, around 5.9% of the participants mentioned that the availability is “very good”, and only 3.3% indicated that the availability is “very bad”. In terms of the availability of ethnic food retailers, 48.0% of the respondents indicated that the availability of ethnic retailers is “fair”, while 20.1% reported bad levels of availability, and 4.1% indicated that the availability is “very bad”. About 23.8% of
the respondents perceived the availability of ethnic food retailers as good and 4.1 only mentioned it is “very good”.

On the other hand, and as seen in Table 7, the respondent’s perceptions of the quality of ethnic food restaurants and ethnic food retailers are similar to the availability of ethnic food restaurants and retailers as mentioned above. In terms of the quality of ethnic food restaurants and retailers, respondents revealed an average perception of the quality of ethnic food restaurants, with mean scores of (3.18) and (3.21) for retailers. With regards to the quality of ethnic food restaurants, 50.9% of the respondents indicated that the quality is “fair”, 26.4% indicated it is “good” and 5.2% stated that the quality is “very good”. Among the respondents, 16.4% mentioned that the quality is “bad”, and 1.1% indicated that the quality is “very bad”. With respect to the quality of ethnic food retailers who sell ethnic food ingredients for personal ethnic food cooking, 47.6% of the respondents indicated that the quality of ethnic food ingredients is “fair”, 31.2% indicated it is “good” and only 5.2% perceived the quality as “very good”. Of the respondents, 15.6% of the participants reported that the quality is “bad” and only 1.5% indicated that the quality is “very bad”.

64
Table 7 Availability and Quality of Ethnic Food Restaurants and Retailers

<table>
<thead>
<tr>
<th>Availability of Ethnic Food Restaurants</th>
<th>Mean = 3.12</th>
<th>SD = .892</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Very Bad</td>
<td>9</td>
<td>3.3</td>
</tr>
<tr>
<td>Bad</td>
<td>50</td>
<td>18.6</td>
</tr>
<tr>
<td>Fair</td>
<td>127</td>
<td>47.2</td>
</tr>
<tr>
<td>Good</td>
<td>67</td>
<td>24.9</td>
</tr>
<tr>
<td>Very Good</td>
<td>16</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Availability of Ethnic Food Retailers</th>
<th>Mean = 3.04</th>
<th>SD = .876</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Very Bad</td>
<td>11</td>
<td>4.1</td>
</tr>
<tr>
<td>Bad</td>
<td>54</td>
<td>20.1</td>
</tr>
<tr>
<td>Fair</td>
<td>129</td>
<td>48.0</td>
</tr>
<tr>
<td>Good</td>
<td>64</td>
<td>23.8</td>
</tr>
<tr>
<td>Very Good</td>
<td>11</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of Ethnic Food Restaurants</th>
<th>Mean = 3.18</th>
<th>SD = .806</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Very Bad</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>Bad</td>
<td>44</td>
<td>16.4</td>
</tr>
<tr>
<td>Fair</td>
<td>137</td>
<td>50.9</td>
</tr>
<tr>
<td>Good</td>
<td>71</td>
<td>26.4</td>
</tr>
<tr>
<td>Very Good</td>
<td>14</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of Ethnic Food Retailers</th>
<th>Mean = 3.21</th>
<th>SD = .807</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Very Bad</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Bad</td>
<td>42</td>
<td>15.6</td>
</tr>
<tr>
<td>Fair</td>
<td>128</td>
<td>47.6</td>
</tr>
<tr>
<td>Good</td>
<td>84</td>
<td>31.2</td>
</tr>
<tr>
<td>Very Good</td>
<td>11</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 8 shows the respondents’ perceptions of the availability of ethnic food restaurants and ethnic food retailers who sell ethnic ingredients in areas surrounding university campuses.

Overall, respondents revealed a high average of the availability with mean scores of (1.40) for restaurants and (1.61) for retailers, respectively.
A total of 59.9% of the respondents reported that ethnic food restaurants are available in the area surrounding university campuses, whereas 40.1% mentioned that such restaurants are not available. In terms of the availability of ethnic food retailers, 61.3% of the participants indicated that ethnic food retailers are available in the areas surrounding university campuses, whereas 38.7% indicated that ethnic food retailers are not available.

### Table 8 Availability of Ethnic Food Restaurants and Retailers in the Immediate Area Surrounding University Campuses

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnic Food Restaurants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>161</td>
<td>59.9%</td>
</tr>
<tr>
<td>No</td>
<td>108</td>
<td>40.1%</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>1.40</td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>.491</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnic Food Retailers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>104</td>
<td>38.7%</td>
</tr>
<tr>
<td>No</td>
<td>165</td>
<td>61.3%</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>1.61</td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>.488</td>
<td></td>
</tr>
</tbody>
</table>

RQ 5) **What are the ethnic food dining habits of international students in the U.S.?**

Participants were asked to indicate their dining preference in terms of whether they usually eat out or cook at home. The majority of respondents reported that they prefer to cook at home (82.9%), and only 17.1% prefer to eat out. In terms of dining accompany, 68.8% of the sample prefers to eat out with friends, 17.5% with spouse, 10.4% alone, 0.4% for business, and 3.0% chose “other.” With respect to how often participants typically eat out, the majority of the respondents (39.4%), stated that they eat out once a week followed by those who eat out 2 – 3
times a week (23.4%). Of the respondents, 15% eat out once a month, whereas those who eat out rarely or daily consist of 10% for both, and only 1.5% chose “other.”

Respondents were also asked to indicate how many miles on average in a month they travel to dine at ethnic food restaurants. A total of 34.6% of the participants mentioned they travel for 5 miles or less and 22.3% indicated that they travel for 25 miles or more. Almost 17.8% travel between 6 – 10 miles, 9.3% travel between 1 – 15 miles, 7.8% travel between 16 – 20 miles, and 8.2% travel between 21 – 25 miles.

Participants were asked to report how many miles in a month they travel to purchase ethnic ingredients. 30.5% of the participants travel for 5 miles or less and 23.4% travel for 25 miles or more. About 13.8% travel between 6 – 10 miles, 10.4% travel between 11 – 15 miles, 10.8% travel between 16 – 20 miles, and 11.2% of respondents travel between 21 – 25 miles.

Participants were asked to report how much money they spend a month on ethnic food; the majority of the sample (34.2%) spend $51.00 - $100.00 a month, while 30.9% spend $50.00 or less. A total of 12.3% of the respondents reported that they spend almost $101.00 - $150.00; 7.8% spend $151.00 - $200.00; 5.6% spend $201.00 - $300.00; 5.9% spend $251.11 - $300.00; and only 3.3% spend more than $300.00 a month.
Table 9 Ethnic Food Dining Habits

<table>
<thead>
<tr>
<th>Items</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dining Habits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat Out</td>
<td>46</td>
<td>17.1</td>
</tr>
<tr>
<td>Cook at Home</td>
<td>223</td>
<td>82.9</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Dining Accompany</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>28</td>
<td>10.4</td>
</tr>
<tr>
<td>With Spouse</td>
<td>47</td>
<td>17.5</td>
</tr>
<tr>
<td>With Friends</td>
<td>185</td>
<td>68.8</td>
</tr>
<tr>
<td>For Business</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Frequency of Eating Out</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rarely</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Daily</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Once a Week</td>
<td>106</td>
<td>39.4</td>
</tr>
<tr>
<td>2 - 3 Times a Week</td>
<td>63</td>
<td>23.4</td>
</tr>
<tr>
<td>Once a Month</td>
<td>42</td>
<td>15.6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Miles in a Month Traveled to Dine at Ethnic Food Restaurants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 miles or Less</td>
<td>93</td>
<td>34.6</td>
</tr>
<tr>
<td>6 - 10 miles</td>
<td>48</td>
<td>17.8</td>
</tr>
<tr>
<td>11 - 15 miles</td>
<td>25</td>
<td>9.3</td>
</tr>
<tr>
<td>16 - 20 miles</td>
<td>21</td>
<td>7.8</td>
</tr>
<tr>
<td>21 - 25 miles</td>
<td>22</td>
<td>8.2</td>
</tr>
<tr>
<td>More than 25 miles</td>
<td>60</td>
<td>22.3</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Miles in a Month Traveled to Purchase Ethnic Food Ingredients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 miles or less</td>
<td>82</td>
<td>30.5</td>
</tr>
<tr>
<td>6 - 10 miles</td>
<td>37</td>
<td>13.8</td>
</tr>
<tr>
<td>11 - 15 miles</td>
<td>26</td>
<td>10.4</td>
</tr>
<tr>
<td>16 - 20 miles</td>
<td>29</td>
<td>10.8</td>
</tr>
<tr>
<td>21 - 25 miles</td>
<td>30</td>
<td>11.2</td>
</tr>
<tr>
<td>More than 25 miles</td>
<td>63</td>
<td>23.4</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Amount Spent on Ethnic Food in a Month</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50.00 or less</td>
<td>83</td>
<td>30.9</td>
</tr>
<tr>
<td>$51.00 - $100.00</td>
<td>92</td>
<td>34.2</td>
</tr>
<tr>
<td>$101.00 - $150.00</td>
<td>33</td>
<td>12.3</td>
</tr>
<tr>
<td>$151.00 - $200.00</td>
<td>21</td>
<td>7.8</td>
</tr>
<tr>
<td>$201.00 - $250.00</td>
<td>15</td>
<td>5.6</td>
</tr>
</tbody>
</table>
Table 10 reveals the importance of ethnic food and its relationship on the academics of international students. A total of 36.4% of the participants “agreed” with the statement that says universities should pay much more attention to include ethnic food into their normal dining services, and 32.7% “strongly agreed.” Only 3.7% of the respondents “strongly disagreed,” and 7.1% disagreed. Participants who neither “disagreed” nor “agreed” consisted of 20.1%. In regard to whether the inclusion of ethnic food options into on-campus dining services would have a positive impact on participant’s educational experience, 37.2% of the respondents “agreed” and 26.8% “strongly agreed.” Almost 4.5% “strongly disagreed” and 8.2% “disagreed.”

Table 10 Inclusion of Ethnic Food into University On-Campus Food Options and the Academic Experience

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities should give much more consideration to include ethnic food into on-campus dining services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>10</td>
<td>3.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>19</td>
<td>7.1</td>
</tr>
<tr>
<td>Neither Agree Nor Disagree</td>
<td>54</td>
<td>20.1</td>
</tr>
<tr>
<td>Agree</td>
<td>98</td>
<td>36.4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>88</td>
<td>32.7</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
<tr>
<td>The inclusion of ethnic food options into on-campus food dining services would have a positive impact on educational experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>12</td>
<td>4.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>22</td>
<td>8.2</td>
</tr>
<tr>
<td>Neither Agree Nor Disagree</td>
<td>63</td>
<td>23.4</td>
</tr>
<tr>
<td>Agree</td>
<td>100</td>
<td>37.2</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>72</td>
<td>26.8</td>
</tr>
<tr>
<td>Total</td>
<td>269</td>
<td>100%</td>
</tr>
</tbody>
</table>
Summary

This chapter presents the statistical findings obtained in this study. The demographic information of the sample [including gender, age, marital status, ethnicity, highest education obtained, current degree pursuing, and amount of time in the U.S.] are disclosed. An independent $t$-test was employed to test the differences between responses from universities who provide on-campus ethnic food dining options and those who do not with regard to future behavioral intentions and self-reported personal health. Mean scores and standard deviations of 7 items were calculated as descriptive statistics in order to interpret the importance of ethnic food attachments to international students. Mean scores and standard deviations were also employed to interpret the respondent’s opinions of the availability and quality of ethnic food restaurants and retailers in the U.S. Lastly, mean scores and standard deviations of 6 items were also used to identify the ethnic food dining habits of international students in the U.S.

The next chapter will address the discussion of the findings, present the main conclusions, address limitations, and report recommendations to university administrators and directions for future research in this area.
Chapter V

Discussion and Implications

This chapter is divided into five sections. First, the purpose of this research and a brief review of its significance are offered. Second, research questions along with the obtained results are discussed. Third, implications for university administrators and college towns’ business operators are presented. Fourth, directions for future research are provided. Lastly, a brief conclusion that summarizes the study in its entirety is offered.

Purpose and Significance of the Research

As previously mentioned in Chapter 1, this study has been conducted to investigate the importance of ethnic food to international college students in the U.S. Five research questions have been proposed. These questions are an attempt to (RQ 1): examine to what extent is the inclusion of ethnic food into on-campus dining options associated with the future behavioral intentions of international students. (RQ 2): to examine to what extent is the inclusion of ethnic food into on-campus dining options associated with self-reported personal health of international students. (RQ 3): to identify the importance international students attach to ethnic food. (RQ 4): to examine the current international students’ perceptions of the availability and quality of ethnic food restaurants and retailers. Lastly, (RQ 5): to identify the ethnic food dining habits of international students.
The significance of this study lies in the vital benefits international students provide to the American educational system and student community in the U.S. Since the enrollment of international students continues to increase, competitive differentiation between universities has become a necessity, in order to retain current students and to attract more international students. As a result, the inclusion of ethnic food into on-campus dining options could be a competitive advantage for universities who provide this service over universities who do not.

**Discussion of Results**

To answer the question on the extent to which the inclusion of ethnic food into on-campus dining options is associated with international student’s future behavioral intentions, an independent $t$-test was used. According to the result of the test, there was a statistically significant difference between universities who provide on-campus ethnic food options and universities who do not and the future behavioral intentions of international students, $t (267) = 2.522, p = .011$. Universities who offer this on-campus service are experiencing an enhanced benefit, compared to universities who do not. In fact, spreading positive statements about the university was found to be the most important item related to international student’s future behaviors, in addition to the willingness to recommend the university to others. These findings are consistent with the focus group results presented earlier in this study.

This result is also consistent with the literature of the Word-of-Mouth and future behavioral intentions. Positive Word-of-Mouth (PWOM) has been recognized as being among the most important aspects in attracting international students to higher education (Allen & Higgins, 1994). This is because ethnic food is an essential part of culture, national identity, evoking memories of home, and remedy for home sicknesses.
An independent \( t \)-test was also used to answer the question about the extent to which the inclusion of ethnic food into on-campus food dining options is associated with international student’s self-reported personal health. According to the result, there was no statistically significant difference between responses obtained from universities who provide on-campus ethnic food options and universities who do not provide similar services and the self-reported personal health of international students, \( t (267) =1.211, p=.227 \). This finding is consistent with the finding of (Camillo, Kim, Moreo & Ryan, 2010), who addressed the most popular attributes of Italian cuisine in the U.S., discovering that health benefits were among the least popular attributes.

However, this result could potentially be explained with the assumption that health is a personal issue. For some students, it might be an important aspect of their personality and they may know how to keep themselves fit, regardless of whether ethnic food is available to them on-campus. In other words, students who pay special attention to their fitness may place less emphasis on the inclusion of ethnic food into on-campus dining options when reporting about their health. Another possible explanation for this finding is that seeking healthy food items does not have to be associated with consuming ethnic food; in other words, not all ethnic food items are healthy. Therefore, people choose healthier food, regardless of whether or not these food items are ethnic when they travel to a new culture. Also, immigrants who consider health an important issue when eating can choose food from other ethnicities. Moreover, it does not have to be from their native dining choices; this is because they want to eat only healthy food regardless of the origin of the food.

With regard to the reasons underlining the potential importance attached to ethnic food by international students in the U.S., seven items were used. Six of the seven items scored high (3.40 and above), namely the relationship between ethnic food and culture, ethnic food helps in
evoking memories of home, the relationship between ethnic food and national identity, ethnic food provides a sense of belonging, ethnic food is a remedy for homesickness, and the relationship between ethnic food and diet. The relationship between ethnic food and faith scored the least (2.32). These empirical findings lend support to the propositions presented in previous studies. For example, Satia-About, Paterson, Neuthouser, and Elder (2002) indicated that immigrants prefer to eat their traditional cuisine to overcome homesickness or to remember and share their original culture, a statement further supported by Brown (2009) who added that homesickness is accentuated further for those who live alone (for example, students), for whom eating seemed to be a source of nostalgia for a life full of companionship and sharing. The empirical findings obtained in this study also support Fieldhouse’s (1995) suggestion that the need for self-actualization is related to an innovative use of food, where new recipes and food experimentation becomes a personal trademark representing one’s identity.

Furthermore, the result provides confirmation to Verbeke and Lo´pez (2005) who indicated that exotic flavor commonly evokes memories of vacations to unusual locations, reflects and strengthens friendships, and promotes openness to new cultures. Given that almost all students who participated in the focus groups have mentioned these links explicitly, the five items that scored the highest were supported by the data gathered from survey of international graduate students in the U.S. the result pertaining to the least scored item, (of faith) is interesting. Faith-related concerns didn’t seem as important as the other connections. Multiple perspectives could explain this finding. In the process of acculturation, new immigrants tend to abolish their original cultural identity and seek contact with member of the host community, a phenomenon described as assimilation Zagefka & Brown (2002). Applied to the finding of this study, international students may ignore some of their religious concerns when they move to a new
culture, or it may be that the foreign circumstances are not conducive to their religious; as a result, they may abandon some religious food habits. It is also possible that faith is less of a concern for international students simply because food that is prepared and served in accordance with their faiths is not available, leading them to accept an alternative type of food.

With regard to the current perceptions held by international students about the availability and quality of ethnic food restaurants and retailers in the U.S., participants reported an overall moderate average of perceptions about the availability of ethnic food restaurants (3.12) and retailers (3.04). Specifically, respondents indicated that the availability of ethnic food restaurants is “fair”, while very few of them reported that the availability is “bad”. In terms of the availability of ethnic food retailers, almost the same average of perceptions of the availability was also reported. In relevance to the quality of ethnic food restaurants and retailers that sell ethnic food ingredients, participants’ perceptions also scored a moderate average of quality and few reported that their perception is “very low”. Particularly, almost half of the respondents reported an average perception of the quality of both ethnic restaurants and retailers.

Based on the data gathered from the focus groups, participants’ perceptions regarding the availability and quality of ethnic food restaurants and retailers were lower. This is because most participants mentioned that they usually leave towns in order to either dine at ethnic food restaurants or purchase ethnic ingredients for personal cooking. This finding could be justified by the fact that six universities have participated in this study, so it might be in some towns surrounding participated campuses ethnic food provisions were more available than the area where the focus groups were conducted. This could explain the lower average level of perceptions in regards to the availability of ethnic food restaurants and ethnic food retailers.
Clearly, the business community around some university campuses is not fully aware of international students as a target market.

In relevance to the ethnic food dining habits of international students in the U.S., several results have been revealed. The majority of respondents prefer to cook at home, this result could be an indication of a lack of ethnic food restaurants, or the service and diversity available in these restaurants is not adequate, leading international students to cook at home. The focus group work revealed two pertinent issues regarding dining habits: some international student’s limited budgets, and, the tastes of ethnic food ingredients are not the same as those which can be found in their home country. Therefore, when international students cook at home they both save more and at the same time try to assimilate a taste that is closer to home that that is offered by restaurants.

In terms of who they eat with, most of participants mentioned that they usually eat out with friends. This finding is consistent with other previous research. For example, Counihan and Van Esterk (1997) argue that eating and sociability are intertwined, and this was a student experience. To some extent, this result is consistent with the findings of National Restaurant Association (2000), which indicated that Chinese restaurants represent “basic family appeal” and attracts almost all consumers (Mills, 2000). Also, this finding supports the focus group findings which indicated that ethnic food represents many aspects of participants’ lives beyond only satisfying hunger. It represents a form of social gathering, socializing, and enjoying the company of friends. Despite the busy time of most of students, the majority of them indicated that they eat out once a week and 2 to 3 times a week. This means that ethnic food is important and it plays a basic role in their lives, which explains why international students give it priority in their schedules. With regard to miles in a month participants usually travel to dine at ethnic food
restaurants and to purchase ethnic food ingredients which are used for personal home cooking, participants who travel 5 miles or less were the majority, followed by those who travel for more than 25 miles. Obviously, in some universities, ethnic food restaurants and retailers are available, while for some areas it is not. This means that some areas surrounding college towns are missing this kind of services, it would be worthy for business practitioners and university administrators to think of how to serve international students target by fulfilling their ethnic food needs.

Comparing this result to the findings of the focus groups, some participants mentioned they often leave their town to meet their ethnic dining needs by eating at ethnic food restaurants or purchasing ethnic food ingredients. In relation to the amount of money participants spend in a month on ethnic food, the majority of respondents spend between $51.00 - $100.00, followed by those who spend between $50.00 or less. This means that despite the limited budgets of some international students, they still spend a portion of their income to fulfill their ethnic dining needs. A possible explanation for this lies in the expense of some kinds of ethnic foods. Some participants in the focus groups mentioned they save a certain amount of money every month to dine at ethnic food and purchase ethnic food ingredients. Their only problem was with the relatively high prices of both dining and purchasing ethnic ingredients.

**Implications**

The relevance of this study is rooted in the topic it has investigated. Although some studies have concentrated on other aspects of international students, research that considers the importance of ethnic food [as a relevant variable in the overall experience of the international students] does not exist. Implications of findings of this study can be derived from university administrators and from ethnic food operators/owners.
The findings obtained in this study provide evidence that there is a lack of attention concerning ethnic dining needs in American educational institutions; this should incline university administrators to be aware of this issue and subsequently, remedy it. Only 33.1% of the participating universities in the present study provide on-campus ethnic dining services and 66.9% do not. Therefore, university administrators must take more action to include ethnic dining services into their current on-campus options. According to Namvar (2000), accurate and timely information with regard to what is likely to happen to the economy and society has always been an important issue for business decision makers. Given that the enrollment of international students is increasing, knowing how to satisfy the needs of these unique students will be of value to university administrators especially within the intensive competition environment of retention and attracting more international students.

Based on the results of this study, universities who provide on-campus ethnic options are experiencing a better reputation among international students over those universities who do not. But to improve ethnic options, those universities should concentrate on issues that have more attachment to ethnic food. Those issues are: the relationship between ethnic food and culture, the role that ethnic food play in evoking positive nostalgia, the relationship between ethnic food and national identity, ethnic food and its association with a sense of belonging, and ethnic food and its role as a remedy for homesickness. These aspects of ethnic food are the most important, which means that improving current services is necessary to satisfy international ethnic food requirements. Also, pursuant to the results, faith should not be considered when improving services because it comparatively has a low attachment to ethnic food. But it might be worth consideration to those ethnicities whose religion impacts their consumption, such as Muslims and Jews, where there are sets of restrictions and specific ways of processing food.
To better understand the specifics of various ethnicities, universities could discuss with various groups of international students their needs and preferences regarding their ethnic food. Those universities should learn from past trends and apply the information obtained to their present and future schemes when it comes to market the university. As the number of international students increase in most of the U.S., university and college campuses, these institutions will need to always be looking for feedback from their target customers, because it helps them provide products and services that these students want. By identifying who their customers are and what they want, universities will have an easier time bringing them in, providing them with value, and bringing them back. With regard to marketing and recruiting efforts, since universities are competing to attract international students due to the benefits they bring. In doing so, universities use different marketing and recruiting tactics. One tactic should be to employ on-campus ethnic dining to better recruitment efforts.

Learning from and benchmarking with universities in the U.S. with proven ethnic food operations on campus can be a step in the right direction. Universities who do not serve ethnic food into on-campus food court should pay attention and take note of their counterparts who provide that options.

This study has shed light on the somewhat lack of the ethnic food provision in terms of ethnic food restaurant and retailers that sell ethnic food ingredients for personal cooking in some of the areas surrounding universities. Although ethnic food positively affects universities who offer this service, business operators interested in this area could be positively affected as well. From the perspective of ethnic food restaurant owners/mangers, especially in the areas surrounding campuses, identifying the wants and needs of international students is a vital issue to help businesses succeed. According to the results revealed in this study, businesses need to focus
on the cultural aspects of ethnic food items, rather than religious ones. They also should diversify their menus to include diverse food ethnicities in order to encompass all international student backgrounds. For meeting international student’s needs, ethnic restaurant's personality and style should be defined by the ethnic food theme and should be mostly appealing to the needs of international students. As the number of international students continues to increase the need for more ethnic food restaurants and retailers will be increased. Ethnic food retailers also need to consider the way they conduct their business. They need to diversify the ingredients as much as possible, and the taste of ingredients should assemble the taste found in the origin of that ethnic food as much as possible.

**Future Research**

Considering the limitations of this research, there are certain impediments for future research. Since this study is the first study that addresses the importance of ethnic food from the perspective of international students in the U.S., it can serve as a foundation for other relevant topics in terms of implications and models. Future research can involve more universities representing different international students’ populations in order to generalize the results. Additionally, as dining options offered to American students on and off campus become more diverse, future research may need to investigate the extent to how this mixture of traditional American food and foreign cuisine may affect the dining preferences of American students.

Most of participants indicated that the inclusion of ethnic food in on-campus food services would help have a positive impact on their overall educational experience; consequently, future research may need to extend the present research to investigate additional relationships, such as the relationship between ethnic food and the overall quality of life of international students. Also, different ethnic groups may have different needs and issues with
adapting to life at American universities. Thus, studies addressing different ethnic groups, as opposed to our study which looked at everybody in big group, may be worthwhile.

From a satisfaction perspective, on-campus foodservice operators may be able to increase student satisfaction by investigating the importance of ethnic food to international students; therefore, follow-up research could be done in this area to address the relationship between ethnic food and international student satisfaction in the U.S. colleges and universities.

Lastly, investigating the extent to which cooperation between universities and the private sectors (ethnic food restaurants and retailers) represent a promising area of investigation for future research.

**Conclusion**

The main objective of this research was to investigate the importance of ethnic food to international students in universities and colleges in the U.S. The findings of this research indicate that the inclusion of ethnic food into on-campus food court options is associated with positive future behavioral intentions, which is very important to any service institution. As an emerging phenomenon, ethnic food from the perspective of international students in the U.S. is still in need for further attention, by both university administrators and industry practitioners. Finally, this research has contributed to filling a gap in the current hospitality industry by investigating this issue and providing implications for university administrators and business community.
References


Lloyd, N. (2003). A research study exploring the attitudes and experiences of international students enrolled in the faculty of engineering, computing and mathematics at the University of Western Australia. Unpublished manuscript. University of Western Australia: The Equity and Diversity Office.


NAFSA (2003). In America’s interest: Welcoming international students. Report of the strategic task force on international student access. Retrieved from: [www.nafsa.org/content/PublicPolicy/stf/stf.htm](http://www.nafsa.org/content/PublicPolicy/stf/stf.htm)

Najafi, F., Jet, D., & Safai, N. (2008). A global model for higher educational institutions to increase the enrollment of minority and international students, ASEE Annual Conference and Exposition, Pittsburgh, PA, June 22-25.

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