

The Relationships between Internet Usage and Acculturation of the Horn of Africa
Immigrants in the United States

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DEDICATION

This dissertation is dedicated to the terribly missed and highly cherished **Eritrean martyrs** who sacrificed their precious lives during the 30 years of independence struggle to reclaim Eritrea's rightful place in the world, and also to those fallen heroes who gave their lives to safeguard the nation's sovereignty and dignity.

Abstract

The purpose of this study was to investigate Internet usage and its relationship with the acculturation of the Horn of Africa immigrants residing in urban Minnesota. Technology has and continues to be a cultural amplifier; in just two decades from its initial availability to the general public, the Internet has made geographical differences practically irrelevant, making the world a virtual small village. Social interactions that were once only possible face-to-face can now take place online. This innovation in communication plays a crucial role in the acculturation process of immigrants, allowing them access not only to social media platforms, but mapping tools, translation websites, online banking, video sharing sites and many other potentially empowering resources that affect how they encounter life in their new environments.

This study utilizes Berry's bi-dimensional theory of acculturation to investigate the relationship between Internet usage and acculturation. Berry's four dimensions of acculturation provide a theoretical guideline for this study. Also employed here are communication theoretical perspectives in studying Internet usage and acculturation.

The participants were 292 Horn of Africa immigrants attending English language classes in adult education programs in the upper Midwestern part of the U.S. A series of multiple regression analyses are used to determine the unique contribution of each variable in predicting acculturation. The study revealed statistically significant relationships among Internet social-networking usage and dimensions of acculturation. The most powerful predictor of Internet usage was level of education, often achieved prior to immigrating to the U.S. Internet usage did contribute to integration, the most

successful strategy for acculturation of immigrants from this group. Perceived English language competency alone accounted for 15% of the variance in integration and 17% of the variance in assimilation. Based on these findings, path models for Internet usage and acculturation are proposed. Further, implications for both research and practice are discussed.

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CHAPTER ONE

INTRODUCTION

The Internet today functions as a computer-mediated communication and information system and is widely seen as an integral part of routine functioning in daily modern life. It has been credited with making national and international boundaries essentially superfluous, and in the process, has transformed the way people live and communicate (Palfrey & Gasser, 2008). Most importantly, the Internet has been identified as a significant resource frequently used by immigrants as they negotiate their new environments. Wang, Sun, and Haridakis (2009) assert that newcomers' use of American Internet tools predicts psychological adaptation to United States culture. As far back as 1997, Turkle noted that the use of the Internet can differ between and among people and that usage may vary among different cultures (Turkle, 1997). The ways in which individuals use the Internet has psychological, social and cultural implications (M. Kim, 2010). The global growth of the Internet has been relatively rapid on all levels, becoming an essential communication tool for individuals and businesses (Beneito-Montagut, 2011; Chen & Choi, 2011; Green & Carpenter, 2011; Lee & Lee, 2010; Palfrey & Gasser, 2008).

This study investigates the influence of Internet usage on the acculturation processes of the Horn of Africa immigrants residing in the United States. For almost a century, the constant movement of immigrant and refugee populations has made the study of acculturation of interest to different disciplines, particularly in the field of social science (Padilla, 1980). Investigating and establishing an understanding as to what

happens to individuals and groups who have developed in one cultural context when they attempt to re-establish their lives in a completely different cultural context is immensely important to an immigrant nation such as the United States (Kapteijns & Arman, 2008). The United States is of course not entirely unique, as many societies have become multicultural, and immigrants have become an important permanent feature of many industrialized nations (Van De Vijver, & Phalet, 2004).

In this study, acculturation is defined as the “social interaction and communicating response styles (both competency and ease/comfort in communicating) that individuals adapt when interacting with individuals and groups from other cultures” (Barry, 2001, p. 193). The interest in culture and acculturation in societies has been shared by academics, policy makers, and society as a whole (Kapteijns & Arman, 2008). A century has been spent exploring the acculturation process and creating what seem to be simple but complex bridges of co-existence. According to Berry (2005), the complex and interdisciplinary nature of this topic makes it interesting. Berry (1974) states that “in large and complex nations-states it is rare to find a population which is homogenous” (p.17). By the same token, the Internet has been identified as one of the key forces in globalization, and no society is exempt (Friedman & Wyman, 2005).

A number of factors have come into play that makes this research on acculturation especially relevant. The development of new high-speed, high-volume technologies coincides with the influx of millions of new immigrants and refugees fleeing war, political oppression, economic disparities, and environmental pressures. At the same time, regional and global free trade, international marketing and recruitment of

skilled personnel has led to more fluidity in the labor force (Burt, 2004; Nee & Sanders, 2001; Rudmin, 2003; Terrazas, 2010). The need for studies on acculturation has never been more relevant (Organista, Marín & Chun, 2010). Yet, despite the growing attention to acculturation by scholars from diverse disciplines such as sociology, social psychology, anthropology, and communication, much of this research is characterized by severe conceptual limitations and simplistic assumptions which have created considerable controversy (Organista, Marín & Chun, 2010), creating a gap between empirical research and the advancement of theory on acculturation that could have resulted in central concepts (Ward, 1996). There is also a confusion of terms as “adaptation” and “assimilation” have been applied interchangeably with the term “acculturation” (Searle & Ward, 1990).

Despite the above limitations and varying viewpoints, acculturation scholars agree that newcomers’ social communication occurs primarily in two closely related communication processes: interpersonal communication and mass communication (Kim, 1988; Ruben, 1975). There is a body of research that indicates the Internet blurs the connection between mass and interpersonal communications. The Internet also has the potential to enhance both ethnic and host communication (Wang, 2006).

Wang (2006) holds the view that the Internet may help newcomers cling to their ethnic cultural links and cultural values more than it helps their adaptation process to the host culture. If the Internet indeed serves newcomers more as an ethnic maintenance tool than it helps them adapt to their new environment, then this situation may challenge the assumption that as immigrants gain social acceptance, they gradually move toward

assimilation (Wilson & Portes, 1980). Scholars in this field have also theorized that the development of computer-mediated technologies such as the Internet may challenge the long held assumptions that the eventual direction of acculturation is toward assimilation and social integration (Wang, Sun, & Haridakis, 2009). Immigrants today may be different in that the social networks they gravitate toward may now include very different sectors of the society (Suárez-Orozco, 2000). Hence, for these new immigrants, integration to the host society has more appeal than the previously held assumptions about assimilation, making assimilation more gradual (Suárez-Orozco, 2000). Thus, information technology in general and the Internet in particular are aiding newcomers in choosing the path of social integration without having to lose their cultural and ethnic identities as they seek to find a place in their host countries (X. Chen, 2004; Ye, 2005).

Problem Statement

The successful integration of most immigrants, including African immigrants, is perceived to be essential for the economic and social success of these individuals and the nation as a whole (Fennelly, 2005). Nonetheless, integration may require examining barriers that may limit their education and occupational potential (Fennelly, Huart & Coalition, 2009). Further, integrating these immigrant populations into their new communities involves building social ties and networks with the host community, components that are crucial for social, cultural and economic survival (Arthur, 2000).

For immigrants, coming into firsthand contact with the dominant culture can be difficult and anxiety producing both for themselves and for the host society. As Myers (2007) has noted, many citizens of the United States view the huge inflow of immigrants

during the past three decades with enormous levels of anxiety. This heightened concern by the mainstream stems from the fear of new and unwanted changes, and unnecessary burdens to the nation's ethnic, social, and economic identity posed by influxes of perceivably different people (Myers, 2007). Economic downturns also exacerbate this fear-based trend (Golder 2003; Jackman & Volpert 1996; Semyonov, Raijman & Gorodzeisky 2006; Wilson 2001).

Culture plays an important role in most aspects of human activity including social, psychological, economic, political, and technological advances (McIntyre, Ardler, Morely-Warner, Solomon & Spindler, 1996; Weisner, 2000). The social and psychological distinctiveness of individuals and groups can be explained by their culture (Fisher, 2001). Despite the importance of culture and acculturation in American society, “recently arrived African immigrants and refugees living on the margins in the United States remain under researched and under theorized in much research on immigration, education, language learning, and national identity formation” (Warriner, 2007, p. 343).

One important factor influencing the acculturation of immigrant groups is communication. Interpersonal as well as mass communication plays a crucial role in the acculturation process of immigrants and sojourners (Khan, 1992). Mass media, including that delivered on the Internet, can provide an escape from hardship as well as create an avenue to learn culture in a way that does not involve interpersonal communication (M. Kim, 2010). For newcomers, mass media communication serves as an alternative to the unknown and uncertainty of interpersonal communication (Kim, 1997). This could be because passive reception of mass communication is far less

stressful than the personal risks required via interpersonal communication in English. Researchers have acknowledged the significance of studying the Internet as a communication device and its ability and scope of expanding mass and interpersonal communication (Morris & Ogan, 1996). In recent years, scholars have come to recognize that the Internet functions as a survival tool that fulfills informational and emotional needs for newcomers who may be experiencing anxiety and uncertainty about their new environment (Ye, 2005). The Internet also provides newcomers an array of information in an immediate way; it potentially increases the frequency of interpersonal communications with their new society and also their home country (M. Kim, 2010).

The issue of culture and acculturation of immigrants draws from a number of disciplines. However, despite active research on immigration, a review of the previous research shows that according to Boadu (as cited in Goris, 2008) there is a dearth of studies on African immigrants. Studies on other immigrant populations such as Hispanics, Asians, and Europeans seem to be thriving, and while studies of these other immigrant populations can perhaps offer a general understanding of the experiences of African immigrants, they nonetheless tell us "nothing about what both separates and encompasses African immigration to the United States" (Okome, 1999, p. 1). Further, any attempt at homogenizing all persons of color as one cluster with no attention to variations leads to an incomplete understating of the issues at hand (Venters & Gany, 2009). Additionally, while the usage of the Internet is an integral part of both interpersonal and mass communication, "computer-mediated communication could be an important factor in the acculturation of immigrants who use it" (Melkote & Liu,

2000, p. 495), yet its implication in the acculturation process of African immigrants in general and the Horn of Africa immigrants in particular, is largely unknown. This represents a knowledge gap and indicates the need for investigating how Internet usage influences the acculturation process of these particular African immigrant populations.

Purpose of the Study and Research Questions

The purpose of this study is to examine the influence of the Internet on the acculturation process of the Horn of Africa immigrants. Studying how the Internet influences acculturation is important because it “has enormous implications for communication and culture” (Wang, 2006, p. 2).

Previous research work that has examined the role of media, mainly traditional media, (e.g., print and television) has in large part concluded that while the receiving society mass media tends to hasten the acculturation and adaptation process of newcomers (Kim, 1984, 1988; Shah, 1991), contrary to this, ethnic mass communication helps maintain ethnic ties, and may also slow the acculturation process of individuals (Kim, 1977, 1988; Shah, 1991). However, recent studies have shown that while host media consumption contributes to the attainment of cultural knowledge of the host society, it may not inevitably lead to the approval of cultural values (Melkote & Liu, 2000).

It is clear that “like television, computer networks can function as mechanisms for social cohesion, social interaction and socialization” (Melkote & Liu, 2000, p. 495). However, what is more appealing about the Internet is its availability and accessibility (Ye, 2005). Yet, the influence of the Internet on acculturation can be different from

traditional media. The Internet offers audiences two-way communication, active participation, mass participation, and requires mostly English reading and writing skills, unlike television, which is one-way audio communication in which the viewers are passive and time bound, and need only listening and visual comprehension skills in English as well as some familiarity with the host culture (Liu, 1996).

In this study, I have assessed the influence of Internet usage on the Horn of Africa immigrants' acculturation. A survey research design is employed to assess these relationships. The overarching research question for this study is simply put: what is the relationship between the Internet usage and acculturation of the Horn of Africa immigrants in United States culture? However, in answering the main research question, the following secondary questions are also considered:

Q1: What is the relationship between the type of Internet usage and the acculturation of the Horn of Africa immigrants?

Q2: What is the relationship between the frequency of Internet usage and the acculturation of the Horn of Africa immigrants?

In addition to the above questions, I have also examined demographic variables which may influence acculturation (see Appendix D).

The first research question assesses research participants' type of Internet usage (e.g., interaction with Americans as well as individuals from their ethnic groups) and acculturation. In general, scholars suggest that individuals' media preference is an important indicator of acculturation for newcomers. While host society media consumption, rich with cultural and social information, aids immigrants in acculturating

to their new environment, consumption of ethnic media may help immigrants retain their ethnic cultural values (Jeffres, 2000). Participation in both interpersonal and mass communication is crucial for successful acculturation (Kim, 1988). For example, Melkote and Liu (2000), who surveyed Chinese students and scholars in the United States, concluded that Chinese ethnic Internet usage helped to create pluralistic integration. Their findings revealed that the Internet was associated with a lesser degree of acculturation to American values, but more acculturation to American behavior. The Internet was found to help sustain respondents' ethnic cultural values. Further, Hwang and Zhou (1999) suggested immigrants who used more English-language media were found to be more acculturated than individuals who use more of their ethnic media.

The second research question assessed participants' frequency of Internet usage and acculturation. Scholars have long established links between an individual's acculturation and both interpersonal and mass media communications. From her extensive studies mostly with Korean immigrants in the United States, Kim concluded that interpersonal as well as mass communication are vital to newcomers acculturation to their host society (Kim, 1977, 1978, 1988, 1995). Further, Kim (1978) found that immigrants who interact with members of the host society are better adjusted. This finding is in line with Berry (1980) who suggests that immigrants' interaction with individuals of the host society can help them learn about their host society's values and behaviors, thus stimulating acculturation.

In addition, to the above two research questions, demographic variables that may influence research participants Internet usage and acculturation were assessed. Scholars

assert that demographic variables such as proficiency of the host language, age at migration, gender, education level, and length of residency affects immigrants' acculturation to their host environment. For example, Feldman and Rosenthal (1990) noted that the longer immigrants reside in their host country, the more acculturated they are. Similarly, Ward and Kennedy (1999) stated that age and gender are good indicators of how well immigrants adapt to their new environment. When it comes to Internet usage, W. Chen (2010) suggested that the longer immigrants reside in the host country, the less likely they are to surf their original country's websites, and the more likely they are to communicate online with individuals of the host society. More importantly, however, her findings revealed that difference in immigrants' Internet usage was found to be significant on immigrants' acculturation (W. Chen, 2010).

The current study is based on a survey of 292 Horn of Africa immigrants and examines the relationships between Internet usage and acculturation. Survey research method was utilized. The research analysis is comprised of five parts. First, the reliability of the scales used in the study was analyzed. Second, explanatory and confirmatory factor analyses were implemented to examine the relationships between the variables so that the questionnaires remained consistent, and the number of variables in the data set was reduced. Third, descriptive statistics were used to illustrate the fundamental features of the data. Following this, Pearson Correlation Analysis was applied to assess the relationships between independent and dependent variables. Fourth, multiple regression was used to identify the strength of the relationships between the dependent and independent variables. Finally, path analysis was conducted in framing

the Internet usage and acculturation models looking at the relationships between the elements of acculturation and Internet use.

Theoretical Perspectives Underpinning the Study

This study employs the bi-dimensional theory of acculturation and communication theoretical perspectives in studying Internet usage and acculturation. Berry's (Berry, 1980, 1984, 1986, 1990, 1992, 1997; Berry, Trimble, & Olmedo, 1986; Berry, Kim, Minde, & Mok, 1987; Berry, Kim, Power, Young, & Bujaki, 1989) fourfold theory of acculturation, which is developed in the cross-cultural psychology research context, will have significant theoretical guidelines for this study, which is reviewed below. The communication theoretical perspectives are reviewed in Chapter Two.

Berry's Epistemology of the Fourfold Theory

One of the most applied contemporary theories of acculturation developed in the cross-cultural psychology research context is John Berry's fourfold theory of acculturation (Berry, 1980, 1984, 1986, 1990, 1992, 1997; Berry, Trimble, & Olmedo, 1986; Berry, Kim, Minde, & Mok, 1987; Berry, Kim, Power, Young, & Bujaki, 1989). Berry (1974; 1980) based his empirical studies on the Aborigines of Australia (in 1994, Berry proposed a fourfold bidimensional model of acculturation (Rudmin, 2009). Berry's model explained how immigrants' and host cultural identity can be represented as an independent element of each other, rather than acute points of a single bipolar continuum. This acculturation framework, for the most part, is based on two-dimensional acculturation strategy and acculturative stress models (Berry, 1990; 1992; 1997). The framework merges cultural-level (situational variables) and psychological-

level (mainly individual variables) in addition to structural and process features of acculturation.

Using the bidimensional approach to acculturation, Berry conceptualized four strategies of acculturation: integration, assimilation, separation, and marginalization. This framework is based on the idea that newcomers, as they enter a new cultural context in pluralistic societies, should make decisions with respect to two basic principles: (1) Are cultural identity and customs of value to be retained? and (2) Are positive relations with the larger society of value, and to be sought? (Berry, 1984). When the two dimensions of cultural change are considered simultaneously, four acculturation strategies for inter-group relations emerge: (1) “integration” strategy means that immigrants maintain key features of their cultural values while at the same time encompassing relationships with the host society; (2) “assimilation” is defined when immigrant groups adopt the culture of the host society while at the same time rejecting their own cultural values; (3) “separation” occurs when immigrant groups place a value on holding on to their original culture, and at the same time wish to avoid interaction with the host society; (4) similarly, “marginalization” occurs when immigrants reject both their own culture and the host society (often for reasons of enforced cultural loss) and avoid contact with the hosting society (Berry, 2005).

Immigrants can have positive or negative attitudes to both their own ethnic and the host culture (Berry, 1997). This may be reflected in their behavior, such as speech patterns, eating habits, clothing styles, or even self-identity. Therefore, Berry’s

framework consists of four modes of acculturation and each mode is associated with different levels of adoption of the host culture (Berry, 1990).

This, of course, as the theory advocates, assumes that integration is best suited in the acculturation process over assimilation. Berry (1997) asserted that:

Acculturation strategies have been shown to have substantial relationships with positive adaptation; integration is usually the most successful; marginalization is the least; and assimilation and separation strategies are intermediate. This pattern has been found in virtually every study, and is present for all types of acculturating groups. (p.24)

However, “this portrayal of acculturation strategies was based on the assumption that no dominant groups and their individual members have the freedom to choose how they want to acculturate” (Berry, 2002, p. 24). Furthermore, integration strategies can be materialized or pursued in societies that are explicitly multicultural. This may include certain psychological preconditions such as widespread acceptance of the value to a society of cultural diversity and relatively low levels of prejudice. Although individuals and groups may hold varying attitudes towards the model and their actual behaviors may vary correspondingly, nonetheless these attitudes and behaviors comprise acculturation strategies.

Berry (1990) asserted that with those wishing to assimilate as may be anticipated with ethnic minorities groups in the United States, maintaining their ethnic culture may not mean much, while cultural maintenance is the priority for those who choose to integrate. Gentry, Ball, & Gonzalez-Molina (1994) noted that:

What is referred to in the U. S. as ‘integration’ is actually assimilation in the Berry framework, as the host Anglo culture in the U. S. expects minorities to absorb the behaviors of the white middle class and often resents attempts on the part of minorities to maintain their own culture. Thus, integration is a bi-directional process, which acknowledges that both cultures change over time, while assimilation is unidirectional towards the dominant group. (p.83)

Although Berry’s model of acculturation has been found to be effective and applicable in describing the acculturation experiences of indigenous persons, immigrants, and sojourners, it has received its fair share of criticism (Organista, Marín & Chun, 2010). Some of the criticism noted that the paradigm lacks utility and explanatory force. For example, though the four acculturation strategies subscales are postulated to be theoretically mutually exclusive, Rudmin (2009) argued that the subscales are not significantly independent. Further, the concept of marginalization, as it stands, is contradictory (Rudmin, 2009). Marginalization should be defined as failure to belong to the preferred reference group. This is because when individuals choose not to participate in either the host or ethnic culture, it can perhaps be explained by the need for other cultures (Rudmin & Ahmadzadeh, 2001).

In this study, combining Berry’s fourfold theory of acculturation and communications theory together seeks to explain the relationship between Internet usage and acculturation of the Horn of African immigrants in the United States in general, and the State of Minnesota in particular. Berry’s theory expects individuals when they enter a new cultural context to make decisions with respect to two basic

principles, which are cultural maintenance and contact participation. Based on their decisions, individuals may choose one of the four acculturation dimensions. Likewise, communication is essential to acculturation. It provides the essential means by which individuals negotiate their new environment. Therefore, Berry's fourfold theory of acculturation and theoretical perspectives of communication are appropriate frameworks in guiding this research study.

Significance of the Study

This research study has both theoretical and practical significance. Although the conceptual literature on acculturation has accumulated over the last hundred years (Jasinskaja-Lahti, 2000), any study that helps to broaden the knowledge of the cultural and the acculturation processes of individuals and groups is extremely important. This is true because "As U.S. demographics continue to change, acculturation is increasingly being viewed as an important variable that provides a framework for understanding between-and within-ethnic groups differences" (Stephenson, 2000, p. 77). As of 2010, in fact, more than half of the U.S. population will be composed of ethnic groups (Sue, 1991) further underscoring the need to deepen our understanding of all aspects of acculturation in immigrant and refugee populations.

Equally establishing the basis for understanding the influence of the Internet on acculturation and the factors influencing it is seen as important to all concerned, primarily because the Internet is now seen as the most significant global communication tool (Dommick, Chen, & Li, 2004). As such, understanding the process of acculturation of immigrant populations is increasingly recognized as critical to their well-being and

success in navigating the complex intersection between culture and technology in every day modern life.

The “Internet research is more or less in its infancy and as such lacks a strong history or research on which to build” (Tomasello, 2001, p. 671). Therefore, empirical evidence is needed to support or refute claims such as Ebersole’s (2000) assertion that Internet technology is having a far larger impact on society than the industrial revolution (Ebersole, 2000). In fact, its social and cultural consequences are largely unknown (Pavlik, 1996). Hence, this research study adds to empirical evidence on this yet maturing body of knowledge.

As described above, both the conceptual literature and empirical evidence on acculturation of immigrants generally is well established; there exist gaps, however, in both concerning the acculturation process of African immigrants. Therefore, examining what relationships may exist between Internet use and the acculturation of the Horn of Africa immigrants is vital. The outcome, first and foremost, can be used to make recommendations related to acculturation strategies for immigrants who come from the Horn of Africa. More importantly, however, this research study contributes empirical evidence to body of literature on Internet use and acculturation. Consequently, this study fills a specific gap that exists in the areas of Internet research and acculturation by examining Internet usage on acculturation of the Horn of Africa immigrant populations in Minnesota.

Relevance of Study to the Field of Adult Education

Interpersonal as well as mass communications are interwoven and inseparable components of culture and the acculturation process of individuals and groups. Similarly, the influence of American mass media is a significant positive predictor for the acceptance of American cultural values. It has also been indicated that influence of mass media overshadows the time of stay in the acculturation process of immigrants (Moon & Park, 2007). According to Walker and Jeffres (1999) “communication is integral to the process by which an immigrant gains information to adapt” (p.161). Therefore, when individuals engage in the process of “tweeting”, updating, commenting, linking, creating, sharing, viewing and surfing on the Internet actions which may be equally matched with response these actions and responses create social interactions that may influence the transformation and empowerment of individuals (Palfrey & Gasser, 2008).

Immigrants face many challenges. Hirschman (1983) stated that learning the language and culture as well as finding financial, occupational, and educational supports can be overwhelming and a major impediment to self-sufficiency. As such, immigrants’ education is seen as the primary step toward full participation in American society and workforce. This may lead to immigrants becoming financially secure and fully participating in the United States culture. Education also has the potential to break down the barriers and challenges in attaining of gainful employment and meaningful participation in the United States job market. Further, Burt (2004) explained that literacy and fluency in English seem to be related to economic self-sufficiency.

Likewise, since information technology (IT) is the driver of the new economy, it a matter of urgency that everyone becomes technologically literate, be connected to the Internet, and also be willing to upgrade their technological skills and adapt to the ever changing global sociopolitical, economic and cultural environments (Kvasny & Truex, 2001).

According to Sproul (2000), “the task of education is to lead people out of darkness into light, out of the cave and its shadows and into the noonday sun” (p. 35). Similarly, the primary concern of adult education is “encouraging individuals of all kinds and conditions to understand their situation and themselves” (Harper, 1955, p. 227). Furthermore, Bergevin (1967) hypothesized a number of detailed purposes for adult education which are:

To help the learner achieve a degree of happiness and meaning in life; to help the learner understand himself; his talents and limitations, and his relationships with other persons; to help adults recognize and understand the need for life-long learning; to provide conditions and opportunities to help the adult advance in the maturation process spiritually, culturally, physically, politically, and vocationally; and to provide, where needed, education for survival, in literacy, vocational skills, and health measures. (p.30-31)

Therefore, Adult Education can play a pivotal role both in increasing understanding of practitioners, scholars, and the host society in regards to policy formulation, curriculum development, workforce development, and community

integration. Also, Adult Education can increase understanding and awareness of culture and acculturation processes.

Limitations

There were several limitations that needed to be acknowledged in approaching this study. First, the migration of African immigrants in general and inhabitants from the Horn of Africa in particular to the United States is a recent occurrence. As such, very limited studies concerning the acculturation experiences of these particular populations exist. Similarly, though, while the Internet is known to complement both interpersonal and mass communications, it is very much in its infancy. Thus, knowledge of its role in the acculturation process of immigrants can at best be described as nonexistent.

The few studies that I came across concerning Internet usage and its influence on acculturation were concerning Asian International students. To my knowledge, there is no other research relating to Internet usage and the acculturation experiences of African immigrants in general and the Horn of Africa immigrants in particular.

Further, to my knowledge there are no scales that measure the acculturation experiences of the Horn of Africa immigrants. Therefore, since the acculturation instrument utilized in this study was originally developed for Asian immigrants, it is reliable and verified, but the results may not be generalizable to other immigrant population other than the three ethnic groups involved in this study, and the validity and reliability of the instrument toward future study necessitate scrutiny.

Qualifications of the Researcher

As a Ph.D. candidate in the Department of Organizational Leadership, Policy, and Development at the University of Minnesota, I have met all of the requirements of the research qualifications for the doctoral program. These courses have afforded me the theoretical and practical experience required for designing and assessing quantitative studies. Equally, these courses shaped my research perspective in the need to be attentive when conducting research involving human subjects in terms of their privacy and confidentiality.

I have the cultural competence and cultural background to successfully complete this study. As an Eritrean immigrant myself, I have insight into the language, culture, and immigrant experience of these groups. My work with the local Eritrean, Ethiopian, and Somali communities has given me a level of confidence and trust that makes this research possible. I worked for eight years as a mathematics instructor at an adult education center in Saint Paul, Minnesota. This is a truly vibrant urban adult education center where adults and youth from all over the world come and join with American born adults to restart their education and make a new life for themselves. Almost half of the student body consists of Somalis, Ethiopians, and Eritreans. During my tenure as math instructor, I became conscious of the challenges the immigrant population exhibited with computer technologies in particular and adjusting to their highly technological advanced education system in general. My insights and work with the immigrant population in the Saint Paul Schools further qualifies me to conduct this research study.

Definitions of Key Terms

For the purpose of clarity and to establish common ground, I have put forward definitions of key terms that framed the overall context of my dissertation. The key construct of my study is Internet usage as it relates to acculturation of the Horn of Africa immigrants. For the purpose of this study, I have selected the following definitions.

Table 1

Definition of Key Terms

Terms	Definition
The Horn of Africa immigrants	Refers to immigrants, refugees and asylees who originated from the countries of Eritrea, Ethiopia, and Somalia.
Acculturation	In this study acculturation is characterized as the “social interaction and communicating response styles (both competency and ease/comfort in communicating) that individuals adapt when interacting with individuals and groups from other cultures” (Barry, 2001, p. 193).
Acculturation strategy	Is an individual’s acculturation mode or preference. The four acculturation strategies for inter-group relations are: integration, assimilation, separation, and marginalization (Berry, 2005).
Culture	It is worthwhile defining culture due to the different interpretations and meanings of the term. Lederach (1995) categorized culture as “shared knowledge and schemes created by a set of people for perceiving, interpreting, expressing and responding to the social realities around them” (p. 9). Therefore, culture can be defined as the shared values, beliefs, norms, symbols, behaviors, and historical traditions.

Terms	Definition
Internet	The Internet also known as “the Net” or World Wide Web abbreviated as WWW, is a computer-mediated communication system (December, 1996).
Immigrants	The definition chosen for this paper is in alignment with that of the United States Department of Homeland Security which defines an immigrant as “an alien lawfully admitted to the United States for permanent residence; such people also may be referred to as lawful permanent residents” (Congressional Budget Office, 2006)
Immigration	Immigration is the process of movement by individuals and groups for varieties of reasons from one geographical location to another with the intent of settling or reestablishing their lives (E. Lee, 1966).
Sojourners	Sojourners refers to foreign-born individuals such as international students, business people, diplomats, foreign workers who are temporarily residing in a country other than their own for a time span with the purpose of accomplishing a personal goal (Weissman & Furnham, 1987).
Interpersonal Communication	Interpersonal communication is a form of communication that involves conversations or interaction between individuals or among people within a society (Hartley, 1999). Generally, interpersonal communication is considered a vital element to the successful acculturation process of immigrants.
Mass communication	“Mass communication is the industrialized production and multiple distribution of message through technological devices” (Turow, 2009, p. 17).
Mass media	Mass media refers to the establishments that provide mass communication (e.g., newspapers, television, radio, and web sites (Turow, 2009)
Assimilation	Is the process by which the subordinate individuals such as immigrants take the cultural values /customs characteristics of the dominant or preferred group (Berry, 2005).

Terms	Definition
Integration	Is an acculturative process that takes place when the ethnic group chooses to maintain their culture values and characteristics while at the same time encompassing relationships and becoming a full participant in the host society's day-to-day activities (Berry, 2005).
Separation	Is an acculturative strategy which occurs when immigrant groups place a value on holding on to their original culture, while at the same time wish to avoid interaction with the host society or reject the host society's culture and customs (Berry, 2005).
Marginalization	Is an acculturative strategy that occurs when immigrants reject both their own culture and the host society's (often for reasons of enforced cultural loss) and avoid contact with the hosting society (Berry, 2005).
Sociocultural adaptation	Refers to an individual's ability to fit in more or less succeeding with the everyday life of the host culture, success in individuals' social competence in managing one's life in the intercultural setting, in particular succeeding in establishing a network with members of the host society and succeeding in attributes such as education and employment (Berry & Phinney, 2006).
Ethnic culture	In this study refers to the "home" culture of the Horn of Africa immigrants.
Host culture	Is the culture of host society, in this case, the broader United States' culture.

Organization of the Study

This dissertation is organized into five chapters. In Chapter One, I offer an introduction to the study, the problem statement, purpose of the study, brief description of the theoretical perspectives underpinning the study, the significance of the study, relevance of the study to the field of Adult Education, and definitions of key terms

respectively. Chapter Two provides a comprehensive review of literature related to the topics of acculturation, Internet-based communication, and interactions. This chapter also offers extensive review of the characteristics of the population under inquiry. In Chapter Three, I detail the methodology and methods utilized in this study. This chapter also describes the characteristics of the survey and some features of the descriptive summary of the survey. Chapter Four provides the findings of the data analysis. Likewise, in Chapter Five, I offer discussion of each research question based on the findings and with reference to the literature review. Also, I present conclusions drawn from the findings of this study, implications, limitations, and recommendations for practice and future research.

Summary

The research study is based on data gathered from 292 Horn of Africa immigrants using measures of Internet usage and acculturation. In this chapter, I have laid the foundation for examination of the relationships between Internet use and acculturation of the Horn of Africa immigrants in Minnesota. I also have presented an introduction, a statement of the problem, theoretical perspectives underpinning my study, and purpose of the study including the research questions. In addition, I have presented definitions of key terms and relevance of the study to the field of Adult Education. In the following chapter, I present a thorough review of academic literature.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this study is to examine the influence of the Internet on the acculturation process of the Horn of Africa immigrants. The first aim of this study is to attain a contextualized understanding as to whether Internet usage by the Horn of Africa immigrants influences their acculturation process. The ultimate goal is to bring into focus the cultural and acculturation experience of immigrants in a major settlement area in the Midwestern United States.

The study is predicated on the need for transformational policies that will enhance the acculturation process of immigrants. When individuals are introduced to an unfamiliar environment, they experience simultaneously both psychological and sociocultural features of acculturation; as a result, the literature review does address some aspects of psychological acculturation. Nonetheless, the study is only focused on the sociocultural aspect of acculturation.

The literature is reviewed in three major areas. First, the foundations of acculturation are reviewed. Second, the role of media and the Internet in acculturation is presented. Third, acculturation of the Horn of Africa immigrants is reviewed.

Foundations of Acculturation

Even though specific theorists with different approaches have varying interests in the acculturation process (Liu, 1996), nonetheless, the concept of acculturation is situated within the fields of anthropology and sociology (Jasinskaja-Lahti, 2000). As such, acculturation constructs have been vital elements of the study of colonization,

international migration, minority groups in multicultural societies, and globalization (Castro, 2003). Therefore, researchers from these disciplines have studied how people cope with the experience of adapting to their new cultural environment (Berry, Kim, Power, Young, & Bujaki, 1989).

The early definitions which laid the foundations for the contemporary discussion of acculturation are: Redfield, Linton, and Herskovits (1936) who defined acculturation as “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” (p. 149). Decades later, the Social Science Research Council (SSRC, 1954) further defined acculturation “as culture change that is initiated by the conjunction of two or more autonomous cultural systems. It is the body of customs of the society to which they (individuals) belong that is said to be acculturated. It may be derived from non-cultural causes, such as ecological and demographic” (p. 974-975).

The above definitions depict acculturation as an aspect of a wider concept of culture alteration. The interactive nature of cultural contact as a result of long-term contact between and among cultural groups is also stressed. According to these definitions acculturation involves first hand contact; as a result of this process changes can occur in one or both groups that can result in adopting beliefs and values or behavioral conventions from the other, which may affect the group’s social, political, and economic systems. The second definition provided by the Social Science Research Council can include change that may not be cultural but ecological, and it can be

delayed because of internal adjustments, presumably of a cultural and psychological character, which take time (Berry, 2003). However, what is clear about the above definitions is also the fact that there existed “a shared assumption among anthropologist at that time that although acculturation is an exchange process, acculturation would be more in favor of the more contributing and powerful dominant or host culture (Amer, 2005, p.6). In general, the term “acculturation” may refer to the encounter of ethnic culture with the host culture involving the processes of either integration, assimilation, separation, or marginalization. As defined earlier, in this research study acculturation is conceptualized as social interaction and both competency in communicating and comfort in communicating (Barry, 2001).

In the following section of this chapter: (a) philosophical foundations of acculturation, (b) psychological acculturation, (c) psychological and sociocultural adaptation, (d) acculturative stress, and (e) acculturation models are reviewed.

Philosophical Foundations

One of the most debated issues in the 20th century to the present has been on how best to shape the complexities of the issue of immigration and judge the influence of immigrants on American culture and acculturation process of individuals and groups. As a result, three equally competing schools of thought emerged in the early research on assimilation in the United States: Anglo-conformity, the melting pot, and cultural pluralism (Gordon, 1961). First, those who held the view of Anglo-conformity advocated or demanded 100 percent Americanization by demanding English language and English-oriented cultural patterns to be the standard way of life. Therefore,

assimilation meant stripping immigrants of their native language, cultural values, and attachments along Anglo-Saxon lines (Gordon, 1961).

Similarly, the melting pot perspective viewed assimilation more along the lines of merging and blending biologically and culturally the different immigrants groups. As such, those who stipulated the philosophy of the melting pot demanded that as new immigrants arrived to the new land, they would become culturally and racially mixed to create an American 'Utopia' (Gordon, 1961). This vision later became the "central element in the development of the assimilation school of race and ethnic studies in American sociology" (Hirschman, 1983, p. 398).

The viewpoints of the Anglo-conformity and the melting pot led to the birth of the equally competing philosophy that advocated multiculturalism or cultural pluralism over assimilation. The scholars who held this viewpoint advocated that immigrants maintain their original culture, ethical identities, customs and values; however, they would also adapt to the culture of the new environment. Yet, these scholars thought that assimilation could hurt minority cultures by stripping away their distinctive features. Further, this school of thought saw the philosophies of Anglo-conformity and melting pot to be forcefully and overly simplistic in its view of understanding culture and ethnicity. Instead they advocated a multicultural society that is inclusive, yet one that is aware of cultural and ethnic differences. The view of the dominant group of attaining a homogeneous America was seen as a romantic vision that would strike most modern observers as naïve and rather patronizing (Hirschman, 1983).

All of this, perhaps, may have come full circle when Child (1943) and Lewin (1948) advocated acculturation as the strategic reaction of the minority to continuous contact with the dominant group. The psychologist Child (1943) when studying second-generation Italian Americans in New Haven, Connecticut, during the late 1930s, found that many Italian Americans lapsed into an apathetic identity state. As such, those with the view of cultural pluralism advocated immigrants/minority groups to be integrated into the U.S. society, with little stress and little pressure. This set the ground for the debate that went on through the last century and continues still (Hirschman, 1983).

Psychological Acculturation

Though the concept of acculturation may have originated in the fields of anthropology and sociology, acculturation research, nonetheless, became a vital topic in the field of psychology, especially in the field of cross-cultural psychology. Berry et al. (1992) define psychological acculturation as involving changes in identification, attitudes, and values, acquisition of new social ability norms as well as adjustment of adaptation to a changed or changing environment. Berry and Kim (1987) stated that within the concept of psychological acculturation “acculturation refers to psychological changes in an individual (in both behavior and internal characteristics) whose cultural group is collectively experiencing acculturation” (p.491).

Within the discipline of cross-cultural psychology Graves (1967), “shifted the study of acculturation from the macro-level to the micro-level and proposed the concept of psychological acculturation—the psychological and behavioral changes that an individual experiences as a result of sustained contact with members of other cultural

groups” (Ward, 1994, p. 330). While acculturation as studied by anthropologists and sociologists consisted only of group or societal level phenomenon, referring to changes in a group’s value and cultural practices, it is now referred or recognized as an individual level phenomenon and labeled psychological acculturation (Graves, 1967). As such, cross-cultural psychology has established significant links between cultural context and individual behavioral development (Berry, 1997). Given this relationship, cross-cultural research has increasingly been investigated to establish understanding as to what happens to individuals and groups who have grown up in one cultural context when they attempt to re-establish in another. This opened the door for acculturation to be examined from the psychological perspective. For comprehensive review of literature see (e.g., Berry, 1977, 1980; Padilla, 1980; Furnham, 1988).

According to Matsudaira (2006) “psychological acculturation was once thought to be a one-dimensional process. More recent understanding suggests that psychological acculturation is multidimensional” (p. 471). Perhaps a major contribution to the study of psychological acculturation and the prediction of acculturative stress can be found in Berry’s theoretical investigation of acculturation attitudes (Ward & Rana-deuba, 1999). Matsudaira (2006) further suggested that there are two types of bi-dimensional acculturation measures; however, both scales postulate that psychological acculturation is decided by individuals’ selective adoption of host culture and selective rotation of ethnic culture. Berry and associates presented a conceptual model of four acculturation strategies (e.g., integration, assimilation, separation and marginalization), described above (Berry, 1984, 1986, 1990, 1992, 1997; Berry, Trimble, & Olmedo, 1986; Berry,

Kim, Minde, & Mok, 1987; Berry, Kim, Power, Young, & Bujaki, 1989). The four acculturation strategies are measured using separate scales to determine better or worse strategies for dealing with acculturative stress.

Second, most recently (e.g., Flannery, Reise, & Yu, 2001; Rudmin & Ahmadzadeh, 2001; Ryder et al., 2000; Ward & Kennedy, 1994) undertook the expansion on the underlying concept of acculturation through the measurement of biculturalism and orthogonal cultural identification. For the most part, the above scholars measured ethnic culture and host society culture independently, or applied scales that included host culture and ethnic subscale. Further, (e.g., Zak, 1973, Der-Karabetian, 1980; Hutnik, 1986) have all suggested and assessed heritage and contact culture classifications independently.

Psychological and Sociocultural Adaptation

Building on Berry's theory and research on acculturation strategies, Ward and Kennedy (1994) have attempted to merge their psychological and sociocultural adjustment research work. Therefore, in recent acculturation and adaptation literature a distinction has been established between psychological and sociocultural adaptive outcomes (Ward, Okura, Kennedy, & Kojima, 1998; Ward & Kennedy, 1993). There are two distinct ways of adaptation (Ward, 1996): psychological and sociocultural. Psychological adaptation encompasses the behavioral shift and acculturative stress of individuals and groups as they go through the adaptation process. This is linked with psychological well-being, good mental health, and emotional gratifications, processes that can be only contemplated as internally oriented (Berry, 2006). For example, if the

individuals' acculturative mode calls for integration, meaning the maintaining of one's heritage and cultural values while participating in the host culture, but the host society demands assimilation, which asks newcomers to integrate into the host society's way of life and turn their backs on their ethnic traditions and values, this can introduce conflict and ultimately lead to interpersonal distress (Berry, 2001). On the other hand, if the acculturative mode the host society demands of newcomers is similar to that of the newcomers, then this is a good fit and positive psychological outcome can be predicted.

Sociocultural adaptation encompasses the ability to fit in more or less successfully with the everyday life of the host culture, referring to the individuals' social competence in managing one's life in the intercultural setting, a process that can be thought of as externally oriented (Berry & Phinney 2006). According to Berry (2003) sociocultural adaption can be materialized when individuals succeed in establishing a network with members of the host society and succeed in attributes such as education and employment.

According to Ward et, al., (1998) scholars in this field have established traits such as personality, social support, and identity development that influence the psychological adaptation of individuals, while cultural norms, host society language proficiency, and the degree of contact with people from the host society influence sociocultural adaptation. Further, Ward and Kennedy (1993) state that psychological adaptation can be best investigated within the context of stress and psychopathology, whereas sociocultural adaptation is more intimately linked to the social skills framework. Although these two are interconnected, they otherwise represent

independent bodies of empirical research. A body of research has shown that these two adaptive outcomes are predicted by different variables (Jasinskaja -Lahti, 2000).

Acculturative Stress

Acculturative stress was first noted by Redfield, Linton and Herskovits (1936), and refers to the anxiety and depression resulting from cultural differences.

Acculturative stress differs from psychological and sociocultural adaption.

Psychological adaption refers to individuals' overall response to stress elicited by daily interaction, and sociocultural adaptation refers to individuals' social competence ability in succeeding at daily activities, while acculturative stress refers to individuals' ability to overcome difficulties such as discrimination and isolation.

Born (1970) and then Berry (1980) found acculturative stress to be a significant problem for many immigrant groups. Born (1970) examined the psychological stress affecting individuals who are subjected to acculturative pressures from Western modernized societies. He found that "primary stress is seen to derive from relative deprivation and, in particular, withdrawal of status respect" (Born, 1970, p. 529).

Berry and Kim (1987) defined acculturation stress as a reduction in the health status (including psychological, somatic and social aspects) of individuals who are undergoing acculturation, concluding that these health phenomena are related to "acculturation phenomena"(p.491). If individuals are exposed to more than one culture, they must negotiate and adapt to cultural differences such as customs, values, and norms for appropriate behaviors (Berry & Kim, 1988; Berry, Kim, Minde & Mok, 1987). Acculturative stress is also referred to by some as "culture shock" (Padilla, 1985)

describing the stress experienced by newcomers in response to changes that arise when adapting to a new culture (Ryder et al., 2000).

A significant predictor of acculturative stress is attitude towards acculturation (Berry et al., 1987). According to Berry (1997) those who attempt to assimilate at the expense of their own culture and those experiencing feelings of separation from the host culture are likely to have intermediate levels of stress. Those who experience feelings of marginalization in the host culture have higher levels of acculturative stress. Immigrants who want to integrate rather than assimilate thus maintaining their own culture experience less stress (Berry et al., 1987). Marginalization is found consistently to be associated with the least successful adaptation (Berry, 1997; Sam & Berry, 1995), while integration almost universally establishes a “substantial relationship with positive adaptation” (Berry, 1997, p. 24).

Refugees in particular may be vulnerable to acculturative stress. Contemporary theories (e.g., Berry, 1997; 1974; Berry & Kim, 1988; Berry, Kim, Minde, & Mok, 1987) indicate that forced versus voluntary migration, receptiveness of the host society, and the degree of similarity between ethnic and host culture all contribute to stress. Further, difficulties such as uncertainty of housing, employment, schooling; and worry about family members left behind increase this (Nwadoria & McAdoo, 1996; van der Veer, 1998).

Acculturative stress is also found to be associated with a poor fit between the individuals and the attitudes of the host societies toward the newcomers. Van der Veer (1998) stated that newcomers often face intolerance such as racial discrimination,

xenophobia, and misconceptions about their culture from their receiving society which can lead to acculturative stress. This may be particularly true with refugees who may have experiences of pre-migration stressors, such as loss of their homes family members and friends, social outlets, the ability to communicate with ease and a sense of indignities (Van der Veer, 1998). Scholars assert that these pre-migration stressors can exacerbate during the initial period of settlement. Likewise, women, as they are forced to obtain employment and assume a double role and those who immigrate at later age, have a higher acculturative stress when compared to second generation individuals (Padilla, Alvarez, & Lindholm, 1986).

Models of Acculturation

Immigration and immigrants are hardly new to the United States of America, and it is natural for the issue of culture and identity to be given due attention by scholars. As a result, between 1918 and 1984, sixty-eight theories emerged to predict acculturative stress (Rudmin, 2009). However, Ward (1996) noted that there exists a gap between the accumulations of empirical research on acculturation and the advancement of theory to systematize the core concepts involved in the process of change that results from cultural contact. In this section of the chapter, Gordon's one-dimensional assimilation model, theory and measurement of acculturation, fusion model, and bi-dimensional models are presented.

Gordon's One-dimensional Assimilation Model. According to Flannery, Reise, and Yu (2001) "Since Parks and Miller (1921), the unidirectional model of acculturation has been the standard view of acculturation" (p. 1035). Thereafter, Gordon

(1964) put forward a one-dimensional assimilation model, which may have begun the race in psychological acculturation research (Castro, 2003). This model's "underlying assumption is that a member of one culture loses his or her original cultural identity as she or he acquires a new identity in a second culture" (LaFromboise, Coleman, & Gerton, 1993, p. 398). Further, Gordon's model assumes that the main feature that affects the acculturation process of immigrants is length of residence in the host culture. With each successive generation, immigrants would shed their ethnicity, cultural and language and assume the culture and language of the host society (Alba, 2000; Neckerman, Carter, & Lee, 1999).

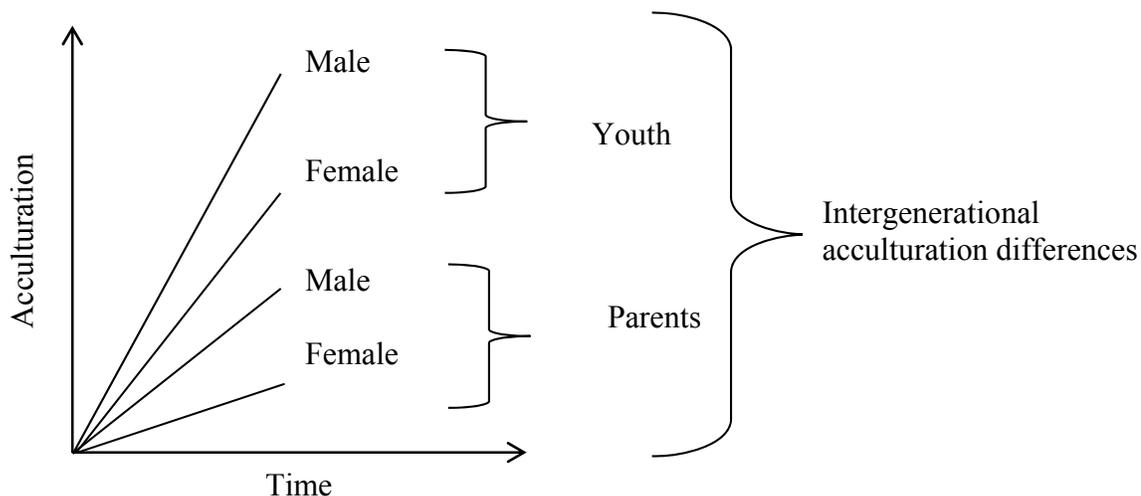
As such, acculturation within this model was presented as a segment of assimilation. This means that immigrants move through a continuum; however, at the end of that continuum they are expected to fully adapt to the host nation culture and lose the culture and heritage of their origins. Consequently, a scale grounded on the one-dimensional model cannot differentiate individuals who are highly committed to both cultures from those who are implicated in neither culture (Keefe & Padilla, 1987). Therefore, earlier scales based on this model had serious flaws (Suinn, Rickard-Figueroa, Lew, & Vigil, 1987). Since the concern of the one-dimensional model is how newcomers learn and obtain new cultural traits, immigrants' Americanization is measured to indicate acculturation. Most of the research within the one-dimensional framework has used demographic variables, such as age at immigration, or years lived in the host country as a proxy measure of acculturation (Ryder, Alden, Paulhus, 2000).

Although generally “acquiring this new identity involves some loss of awareness and loyalty to one’s culture of origin” (LaFramboise et. al., 1993, p. 397), scholars claim that “assimilation” could hurt minority cultures by stripping away their distinctive features (Hirschman 1983). Further, LaFramboise et. al. (1993) review of the assimilation model led them to conclude that there are three major dangers associated with the process of assimilation. These are: (1) the possibility of being rejected by members of the majority culture (2) the likelihood of being rejected by members of the culture of origin; and (3) the likelihood of experiencing excessive stress as one attempts to learn the new behaviors associated with the assimilative culture and to shed the inoperable behaviors associated with the culture of origin” (p. 397).

Further, terms such as “westernization”, “Americanization”, and “modernization”, used in fields such as epidemiology and sociology to describe immigrants’ experiences in Western societies (Berry, Trimble & Olmedo, 1966), mirror the linearity and one-dimensional emphasis of the assimilation model. Therefore, the assimilation model does not recognize the inherent value of societies and the need to preserve them, and it could hurt minority cultures by stripping away their distinctive features (Hirschman 1983). Early immigrants such as the Irish Catholics and substantial influx of Germans gradually accepted their new American identities and became as fellow “white” citizens of United States (Gordon, 1961); however, the assumption of the assimilation model that immigrants will shed their culture of origin and become absorbed into the mainstream society may not become manifest with all immigrants,

particularly those of African origin. Suárez-Orozco (2000) noted that the U.S. society is no longer, if it ever was, a uniform or coherent system.

Theory and Measurement of Acculturation. This more precise one-dimensional model is advanced by Szapocznik, Scopetta, Kurtines, and Aranalde in 1978, to depict the cultural change undergone by immigrants or minority groups as a result of first hand contact between the host and newcomers' culture. Assimilation within this model is a function of the span of time an immigrant interacts with the host society or the length of residence in the host society. Szapocznik and Kurtines (1980) noted that within this model individuals acculturate differently depending in their age and gender (see Figure 1). According to this theory, youth acculturate at a faster rate than their parents and individuals who immigrate at an older age. Moreover, males acculturate faster than females.



Source: Szapocznik and Kurtines (1993)

Figure 1. Linear Model

Fusion Model. The fusion model was advanced by Gleason (1979) to study cultural adjustment among immigrants. According to Gleason (1979) the fusion model signifies the assumption behind the ‘melting pot’ theory that describes the fusion of different nationalities, ethnicities and cultures. “This model suggests that cultures sharing an economic, political, or geographic space will fuse together until they are indistinguishable to form a new culture” (LaFramboise et. al., 1993, p. 401). This model postulates that “each culture brings to the melting pot strengths and weaknesses that take on new forms through the interaction of cultures as equal partners” (LaFromboise, et a., 1993, p. 401).

However, the history of the melting pot is one of a kind in that it was both as selective as to who should go through the process of re-creation and, unkind to some, simply to keep the purity of “whiteness”. According to Gordon (1961) although Black Americans made up nearly one-fifth of the total population at the time, their predominantly slave status, combined with racial and cultural prejudice, barred them from serious consideration as an assimilating element of the society. However, to fully guarantee that these undesirable populations remain at bay, some measures were taken. Hirschman (1983) cited that legal barriers including the denial of the opportunity to vote among many other essential rights of citizenship that put Black Americans in a state of powerlessness, a practice described by Myrdal (1944) as a moral dilemma between American ideals of equality and the practice of racial discrimination. Concerning Native Americans, Gordon (1961) stated that assimilation was out of the

question; they did not want it since they had a positive need for the comfort of their own communal institutions.

Although the fusion model seems to advocate a bi-dimensional approach, for some immigrants groups, particularly those coming from the Horn of Africa, this approach may not be feasible. The “respectful sharing of institutional structures are expected to produce a new common culture (LaFromboise, et a., 1993, p. 401), nonetheless, it may not be on equal ground. This is because the fusion model holds that “minority groups become assimilated into the majority group”. The price is their ethnic identity; however, “minority group undergoing fusion would have experiences similar to one undergoing assimilation” (LaFromboise, et a., 1993, p. 401). This would mean that immigrants coming from the Horn of Africa undergoing the fusion process would have experiences similar to the process of assimilation. They would end up assimilating to the mainstream culture, in this case the United States culture, and would then relinquish their culture of origin. According to Suárez-Orozco (2000), immigrants today enter social spaces, which are ethnic and racial and are important gravitational fields. Therefore, this fusion model would not able to capture the acculturation process that of the Horn of Africa immigrants.

Bi-dimensional Models. Criticism of the one-dimensional assimilation models led to the birth of bi-dimensional models, which “hold that individuals can maintain their cultures of origin even when they acculturate to new cultures” (Matsudaira, 2006, p. 471). Thereafter, bidimensional models (e.g., Hutnik, 1986, 1991; Moghaddam, 1988; Szapocznik & Kurtines, 1980; Triandis et al., 1982) emerged. Finally, a fourfold

acculturation model from cross-cultural psychology advanced by Berry and associates was promulgated (Berry, 1984, 1986, 1990, 1992, 1997; Berry, Trimble, & Olmedo, 1986; Berry, Kim, Minde, & Mok, 1987; Berry, Kim, Power, Young, & Bujaki, 1989). This is the model that frames this study.

For the most part, the above scholars based their view that immigrants' ethnic distinctiveness within conventional culture falls on a separate continuum from that of immigrants' adoption of host identity and culture. The underlying assumption of these models is that the one-dimensional model is overly simplistic in its view towards the understanding of culture and ethnicity. These scholars argue that acculturation is not a nonreversible process and there is no conceptual or definite end point, which the assimilation model seems to indicate. The one-dimensional assimilation models have also been criticized for presenting acculturation as conflict free. Indeed, however, contemporary practices can lead to conflict and stress (Trimble, 2002). As such, acculturation, as a complex process, cannot be left to the linear assimilation model (Castro, 2003). On the other hand, the bi-dimensional approach offers us the opportunity in which two cultures interact to predict acculturation effects (Krawczyk, & Ryder, 2005). The Teske and Nelson (1974) analysis comparing and contrasting of salient characteristics of the concepts of acculturation and assimilation through the development of conceptual framework led them to conclude that: "(1) acculturation and assimilation are separate, distinct processes; (2) acculturation may occur independently of assimilation; (3) acculturation is a necessary, though not a sufficient, condition for assimilation to occur; and (4) the extent to which acculturation must occur before

assimilation begins is indefinite” (p. 365). In particular, a fifth conclusion disclaimed the long held view that acculturation must occur before assimilation or “assimilation to be end-product of acculturation. Moreover, Teske and Nelson (1974) identified five differences and three similarities between acculturation and assimilation.

These are as follows: (1) acculturation is “two-way, that is, it may occur in both directions”, while assimilation is “unidirectional”; (2) acculturation “does not require change in values, through values may be acculturated”, while it is the case with assimilation; (3) with acculturation “reference group change not required”, while it is required with assimilation; (4) with acculturation “internal change not required”, however, it is the case with assimilation; (5) “acculturation does not require “out-group acceptance, while it is indeed the case with assimilation. The commonalities between the two concepts are: (1) “both are dynamic processes”, (2) “both may be treated as either an individuals or group process,” and (3) “both involve direct contact between two or more distinct cultural groups. (p. 365)

Generally, scholars in this field believe that individuals differ in the extent to which they self-identify in terms of cultural values, attitudes, and behaviors. Therefore, a bi-dimensional model of acculturation such as the fourfold gives immigrants the chance to identify themselves with two cultures, that of their own and that of the host society. Scholars also believe that individuals are capable of maintaining more than one culture, thus, it may vary in strength (Ryder et al., 2000). The Flannery, Reise, and Yu (2001) empirical comparison of the one-dimensional and bi-dimensional models with

291 Asian Americans leads them to conclude that “the unidirectional model is recommended as an economical proxy measure of acculturation, the bidirectional model is recommended for full theoretical investigations of acculturation” (p. 1035). Flannery, et al (2001) noted that “there may be no “single best” acculturation model. Instead, social scientists must select the acculturation model that best matches their research topic and their population” (p. 1044). Overall, acculturation scholars seem to agree that “research guided by two-dimensional models has shown that conceptualization of acculturation as a multidimensional process is especially helpful to understand cultural change and inter-ethnic relations in ethnically plural context” (Castro, 2003, p. 25).

The Role of Media and Internet in Acculturation

This section of the literature review scrutinizes: (a) the role of host mass media in acculturation, (b) the role of ethnic mass media in acculturation, (c) computer-mediated-communication, (d) the Internet and its influence on culture and contemporary life (e) Internet usage in acculturation, (f) the Horn of Africa immigrants and Internet usage, and (g) uses and gratifications theoretical perspectives.

The Role of Host Mass Media in Acculturation

Scholars in the fields of sociology and anthropology have long recognized the important role of communication in acculturation (e.g., Nagata, 1969; Kwan & Shibutani, 1965; Pool, 1965); nonetheless, communication variables in acculturation were seen as an incidental part of acculturation (Nagata, 1969). This is because the main concern for sociologist and anthropologist was the overall immigrants’ acculturation to the host culture, rather than examining the patterns of communication by which

acculturation can be accomplished. Within the discipline of communications, Young Y. Kim (1988, 1995, 2001), a leading scholar, by “consolidating the diverse perspectives and approaches that exist today into a coherent theoretical system” (Kim, 1988) advanced a theory of Integrative Cross-Cultural Adaptation, which is grounded in the open-system perspective to explain the adaptation process of both immigrants and sojourners. Integrative cross-cultural adaptation is defined as “a communication process placed at the intersection of the person and environment” (Kim, 2002, p. 31). Communication experiences of individuals are at the heart of this theory.

Sapir (1931) noted that “every cultural matter and every single act of social behavior involves communication in either an explicit or implicit sense” (p. 78). Further, individuals possess “a natural drive to maintain an overall equilibrium in their internal structure while responding to environmental changes” (p. 192). However, for immigrants, the inability to communicate proficiently with the host society can result in acculturative stress, which can challenge their very equilibrium and hinder their acculturation process. Yet, the same acculturative stress can also serve as a motivation to adapt to the host environment and restore the equilibrium (Kim, 1977). As such, “communication is crucial to acculturation. It provides the fundamental means by which individuals develop insights into their new environment” (Kim, 1977, p.66).

A series of studies carried out by Kim (1976, 1977, 1978) of Korean immigrants in the Chicago area looking into the underlying relationship between intercultural communication patterns, and theorizing communication on cognitive and behavioral levels led her to identify the following determinate factors of immigrants’

communication patterns: (1) acculturation motivation, language proficiency, and interpersonal and mass media channel accessibility are found to be strongly correlated with immigrants' intercultural communication behaviors; (2) language fluency, acculturation motivation, and interpersonal and mass media channel accessibility do not affect individuals' cognitive complexity directly; rather, they are mediated by interpersonal and mass communication; (3) the influence of interpersonal communication surpasses that of mass media in developing a complex cognitive system in perceiving the host society; and (4) variables, such as gender, educational background, length of residence, and age at the time of immigration are identified to be key determinants of individuals' language competence, acculturation motivation, and accessibility to host communication channels.

Kim (1988) contended that although the lack of immediate feedback in mass communication makes it a less effective agent for acculturation than the more immediate-feedback of interpersonal communication, in general, the role of mass communication in the acculturation process of immigrants has been long recognized. This is primarily because immigrants who take the active role in interacting with members of the host society are better adjusted psychologically and financially; however, in the initial period of immigrants' settlement process, since their network with members of the host society and their language skills are limited, mass media plays a vital role in their adaptation process (Kim, 1978). Therefore, mass media not only helps immigrants learn about their host society culture, it also helps them avoid the uncertainty and anxiety of interpersonal communication (Kim, 1978).

Previously, “major social scientists have paid little attention to the role of mass media in ethnics’ adaption” (Subervi-Velez, 1986, p. 72), considering that interpersonal communication has greater acculturation function over newcomers than mass communication. Contemporary acculturation studies that examined the role of mass media, mainly television, (e.g., Bandura’s Social Cognitive Theory (Bandura, 1977, 1986, 1992, 1994), Ball-Rokeach’s Television Dependency Theory (Ball-Rokeach, 1988; Ball-Rokeach et al., 1974, 1984), and Katz et al.’s Uses-and-Gratifications Perspective (Katz et al., 1973, 1974; Palmgreen, 1984; Rubin, 1979, 1985,)), recognized mass media in general and television in particular as having considerable influence on its spectators’ values and behavior. For example, Gordon (1964) noted that the mass media along with public schools employ “overwhelming acculturation powers” (p. 244).

In the last few decades communications scholars, and in particular interpersonal communications scholars, have been actively investigating media effects on the acculturation process of individuals and groups. Their conclusions seem to indicate that the use of American mass media by immigrants and sojourners appears to go far beyond reducing cultural uncertainty and emotional anxiety that can intensify as a result of the new environment; in fact, it also increases their knowledge about their host society (Gudykunst, 1988; Kim, 1995; Walker, & Jeffres, 1999). For example Tan, Li, and Simpson (1986) reported a correlation between viewing programs that were disseminated by American television and accepting stereotyped characteristics about Americans. Similarly, Foner (1997) asserted that the dissemination of cultural norms and values by American mass media greatly influences immigrants' adaptation. These

findings are similar to that of Kim (1988) which reported a connection between host mass media usage and cross-culture adaption in various studies of international students and visitors in the United States and other countries.

The key role that mass communications plays in the acculturation process of immigrants is well documented. A study carried out on Korean immigrants in Los Angeles's Korean town by Moon, & Park (2007) revealed the influence of American mass media to be a significant positive predictor of their acceptance of American cultural values. Furthermore, Stilling, (1997) in a study on Hispanic immigrants, has shown the influence of mass media overshadows the time of stay in the acculturation process. Therefore, previous studies demonstrate close correlation between mass communication and acculturation.

Cross-cultural communication scholars point out that immigrants consume American mass media mainly to facilitate their acculturation process and to seek information about the host societies' cultural elements, patterns, and values such as language (Mansfield-Richardson, 1999). Scholars in this area also stressed that immigrants' and sojourners' exposure to American mass media for the purpose of learning American culture indicates their acceptance of American culture (Lee & Tse, 1994). Further, O'Guinn and Faber, (1985) obtained a positive correlation between host society media use and language skill. Therefore, this may indicate that interpersonal as well as mass communications are vital components of culture and the acculturation process of individuals and groups.

Overall, there seems to be a broader understanding among scholars studying the role of communication in acculturation. First, the consumption of mass media by immigrants goes far beyond gratification; rather, it enables immigrants to be more goal oriented in their consumption of American media (Mansfield-Richardson, 1999). Second, among other factors that influences the acculturation of immigrants, scholars agree that mass media plays a crucial role in the acculturation process of immigrants (Hurn, 1998). Third, the Internet complements both interpersonal and mass communication (Liu, 1996; Wang, 2006; Ye, 2005). Thus, one can contend that the use of the Internet may facilitate immigrants' acculturation.

The Role of Ethnic Mass Media in Acculturation

Amongst the various aspects affecting immigrants' acculturation process to their host society, studies show that mass media plays a considerable role. However, there exist different viewpoints in relationship to ethnic media consumption and its implication in the acculturation process of immigrants. Ethnic mass media is studied from three different perspectives, namely assimilation, pluralism and dual roles (Subervi-Velez, 1986). Assimilation "involves fundamental social change that leads to greater homogeneity in society; pluralism "leads to sustained ethnic differentiation and continued heterogeneity"; having dual roles in their own and host societies consists of "neither assimilation nor pluralism in that it is a static concept" (Subervi-Velez, 1986, p. 71).

Though it is widely accepted that host mass media, which is endowed with the cultural and social values of the host culture, has an acculturative function that

complements interpersonal experiences (Kim, 1988), on the other hand, scholars, (e.g., Hsu, Grant, & Huang, 1993; Kim, 1979; Shiramizu, 2000, Viswanath & Arora, 2000) conclude that ethnic mass communication helps immigrants to maintain their ethnic ties. For example, a study by Jeffres and Hur (1981) revealed that “ethnic media use is directly linked to the maintenance and strengthening of ethnic identification” (p.77). Similarly, Lee's (2004) study based on in-depth interviews of Korean immigrants in the United States “showed that Korean satellite television contributed much to the reinforcement of the viewers’ ethnic identity” (p. 68). Further, research findings of Goldlust and Richmond (1974) showed that immigrants in Canada who relied on their ethnic media excluding Canadian newspapers were identified as less acculturated. This is even true after the researchers controlled for education level and length of residence. Kwan & Shibutani (1965) suggest that, “the extent to which members of a minority group become acculturated to the way of life of the dominant groups depends upon the extent of their participation in the communication channels of their rulers” (p. 573). The underlining argument of the above scholars seems to suggest that ethnic media strengthens ethnic identity. Yet, early studies mainly print media, (e.g., Hunter, 1960; Marzolf, 1979; Soltes, 1924) contended that ethnic media plays an assimilation role by helping immigrants learn about and become accustomed to the new land.

Another perspective is that ethnic mass media serves a dual purpose in the acculturation process of immigrants (Subervi-Velez, 1986). Scholars (e.g., Lee & Tse, 1994; Jeffres & Hur, 1981; Warshauer, 1966; Jeffres & Hur, 1981) are of the view that

ethnic media helps immigrants preserve their cultural heritage and also strengthen their ethnic values and identities, all while introducing them to the new host society. For example, Battistelli's (1975) study of Italian Canadian ethnic media disclosed ethnic mass media "played dual roles: assimilation regarding the dominant group's socio-politics, but pluralism regarding ethnics' culture" (Subervi-Velez, 1986, p. 73). In general, the underlining argument of these scholars is that ethnic media helps newcomers adapt to the host culture and maintain their cultural values and modes.

In summary, scholars identified three reasons why immigrants in the United States might use ethnic mass media over host mass media: lack of host society language proficiency, availability of ethnic media, and lack of ethnic affinity along with prevalent stereotypes of non-Anglo Americans in mass media (Park, 1996). Scholars also underlined that the consumption of mass media influences immigrants' acculturation. However, most of the research conducted so far looked only at traditional media, mainly newspaper, television, radio, and other print media, such as magazines, whereas by comparison the reach of the Internet has been perhaps broader on its scope and the number of people it has reached worldwide. However, it is still very much in its infancy. Research has shown that the Internet, like television, can facilitate the acculturation process of newcomers (Melkote & Liu, 2000).

Computer-Mediated-Communication

Communication is a central element in promoting human development. As such, the human need to enhance their communication capacity both in terms of coverage and in how fast they can convey their ideas to others has made computer-mediated-

communication in general, and the Internet in particular, key to human advancement in their communication. And though Internet-based computer-mediated-communication is very much in its infancy, “the internet has cemented its place as an avenue of communication” (Lee & Lee, 2010, p. 712). At the very least, “the Internet is a defining feature of modern life” (Green & Carpenter, 2011, p. 40). A considerable amount of individuals’ social interactions is now conducted online.

The classic definition for computer-mediated-communication is that of Walther (1992), which defined it as “synchronous or asynchronous electronic mail and computer conferencing, by which senders encode in text messages that are relayed from senders’ computers to receivers” (p. 52). Though studies of computer-mediated-communication may define computer-mediated-communication in a variety of ways as they see it fit to their own interdisciplinary theoretical perspectives, nonetheless, from the above definition, it is clear computer-mediated-communication has come far in less than twenty years. Today, computer-mediated-communication includes many forms of interaction, not only synchronous and asynchronous, but real-time interaction that includes text, images, audio and videos.

Computer-mediated-communication in contemporary society has transformed how people interact and associate with each other. As far back as 2001, Matei and Ball-Rokeach described the interaction that has taken place online as making it hard to distinguish between the real and the virtual in our daily social interactions (Matei & Ball-Rokeach, 2001). Ten years later, distinguishing between the real and the virtual in our daily social interactions has only become even more convoluted. Beneito-Montagut

(2011) argue “that everyday life takes place on the Internet; there is no difference between online and offline interpersonal communication” (p. 717).

What is unique about computer-mediated-communication today is that more and more people are drawn to the Internet for social support. Immigrants are not exempt from the drive to get online and connect. A study in Singapore of Chinese migrants designed to identify features that affect their computer-mediated social support, concluded that computer-mediated social support “has become an efficient and valuable supplement to the migrants’ traditional/offline social support” (Chen & Choi, 2011, p. 1064). For their part Chen and Choi (2011) noted that “in an online environment, migrants can establish an increasing network of supportive relationships that cross nationalities and includes family members, friends, and even strangers” (p.1068).

Mesch (2011) attempted to investigate the notion that minorities and immigrant will be more likely to use computer-mediated communication to compensate for their lack of social capital. The above findings revealed that “in multicultural societies disadvantaged groups show greater motivation to use computer-mediated-communication to expand business and occupational contacts, whereas the majority group more are motivated to use computer-mediated-communication to maintain existing family and friendships ties” (p.1). This finding is in line with that of J. Lee and Lee (2010) who examined factors of social capital, media use and demographics that possibly can influence online community use. The above researchers conducted their study comparing individuals of online community users and non-users. Contrary to the previously held assumption that “Internet use may erode an individual’s social capital,

this study found that people who access the Internet for online community use tend to have more sociability and higher levels of generalized norm than do online community non-users” (J. Lee & Lee, 2010, p. 711). Overall, at this juncture it is probably safe to pronounce the Internet as a communication tool “facilitates cross-cultural interactions by enabling convenient communication” (Vignovic & Thompson, 2010, p. 265). The foregoing review highlights that to those who use it, the Internet serves as a communication and social support tool. More importantly, for immigrants it may serve as a vehicle to familiarize them with their new environment.

The Internet and Its Influence on Culture and Contemporary Life

The phenomenon here is that the Internet has dramatically altered our lives, transforming the way we communicate, learn, work and associate; this technology, more or less, and for better or for worse in some cases, has transformed every aspect of society (Baloh & Trkman, 2003). The increase in use of the Internet by over a billion people worldwide occurring over the span of a few decades (Palfrey & Gasser, 2008) has been credited with fostering societal changes, one that advocates online communities and users social benefits (Grace-Farfaglia, Dekkers, Sundararajan, Peters, & Park, 2006). Moreover, "the Internet, by giving people the ability to shape and reshape cultural understanding through digital creativity, has introduced something that is truly different” (Palfrey & Gasser, p. 125, 2008). This implies that the use of the Internet by individuals involves psychological, social and cultural meanings. However, little is known about how the Internet influences immigrants' adaption to their host society (Tsai, 2006).

It is well documented that the Internet brings enormous flexibility in several key dimensions, such as the flow of financial and social capital as well as the flow and distribution of intellectual capital (S. Kim & Chang, 2007). However, what is most notable is the fact that the Internet has transformed how people relate to one another and to the world around them (Palfrey & Gasser, 2008). Therefore, effective participation and familiarity in today's digital information age by individuals and communities is essential. Tsai (2006) asserted that technological advances have drastically changed how people of all ages live and communicate, by aiding them in seeking information and maintaining social ties. As such, the influence of the Internet has caused a change in the way humans live, work, learn and shop, thus making it one of the extensions of self (M. Kim, 2010).

The Internet plays a significant role in maintaining close or distant social networks (Boase, Horrigan, Wellman, & Rainie, 2006). Consequently, people are using it more than ever for interpersonal communication, i.e., receiving electronic mail, contacting friends and family members over instant messaging services and social media such Facebook and Twitter. These actions and responses create social interactions, and increase individuals' network both in scope and size. As such "Internet users have somewhat larger social networks than non-users" (Boase et al., 2006, p. 6). For newcomers, these social interactions contribute to the bigger process of their acculturation. This is because "communication is key to the process by which an immigrant gains information to adapt" (Walker & Jeffres, 1999, p.161).

In Kim's conceptualization of cross cultural socialization, she describes the adaptive changes individuals experience through continuous communication with the cultural environment (Kim, 1988). According to Clausen (1968) socialization provides individuals' essential skills and habits for participating in the overall development of culture through shared norms, customs, values, traditions, social roles, symbols and languages, by which the social and cultural community are realized. In this case, socialization on the Internet with individuals of similar cultural backgrounds may serve the purpose of cultural maintenance, while re-socialization, which is defined as "the way in which an individual who has completed his/her childhood socialization in one culture then comes to adopt the behaviors and values of another culture", (Liu, 1996, p. 74), may mean that the online socialization by immigrants with individuals from the host society would lead into the development of shared cultural norms and values.

In the last two decades, as the rate of Internet use increases so does its profound influence on how individuals and groups communicate. As such, the power of the Internet with its wealth of information and global reach has attracted attention among other social critics but in particular from communication researchers. As a result, early studies of the Internet identified a number of need gratifications as to why people use the Internet. For example (e.g., Choi & Haque, 2002; Ferguson & Perse, 2000; Johnson & Kaye, 1998; Korenman & Wyatt, 1996; Ryan, 1995; Tossberg, 2000) between them have identified need gratifications such as gathering various kinds of information, surveillance, social utility and entertainment. These gratifications also include relaxation, escape, access to people who share similar interests and goals, and

anonymity. However, as a new informational and interactional phenomenon, the role that the Internet plays in the acculturation process of immigrants is in need of further study.

Internet Usage in Acculturation

The aim of this study is to attain a contextualized understanding as to whether Internet use by the Horn of Africa immigrant populations play a role in their acculturation process. Acculturation is a very broad concept. For the most part, acculturation implies that immigrants become conversant in the values, cultural norms, and modes of the host society and acquire the skills needed to negotiate their new environment (Berry, 1990).

Technology is a cultural amplifier (Newman Griffin & Cole, 1989), and the rapid advance in Internet technology is changing the world in which national and international boundaries are less marked (Castells, 2001). Yet, acculturation scholars disagree as to whether the advancement in Internet technology leads to culturally homogenization or cultural diversity (Zhang & Hao, 1999). In the acculturation context, the Internet can play a dual role. The Internet can facilitate newcomers in easily obtaining information from their home countries, staying in touch with families and friends, and interacting with others who have similar interest and cultural backgrounds. This may lead to ethnic ties and a culturally diverse society. On the contrary, however, the Internet can offer newcomers with opportunities to learn social norms, lifestyles, living tips and other information about the host culture, which may facilitate their acculturation process to the host society and lead to a more cultural homogeneity (Wang, 2006).

However, thus far, only a few researchers (e.g., Melkote & Liu, 2000; Wang, Sun & Haridakis, 2009; Tsai, 2006; Ye, 2005) have attempted to understand the influence of the Internet on the adaptation process of individuals and groups. Most of this research work indicated above looked at the adaptation process of Asian sojourners and immigrants in the United States. These studies scrutinized the beliefs, attitudes and behaviors of Internet use and motivations as it influences newcomers' adaptation process to the United States culture. To my knowledge, no research exists concerning African immigrants in general and the Horn Africa immigrants in particular.

The Internet, unlike traditional media, crosses the line between mass and interpersonal communication (Ye, 2005). Furthermore, its intrinsic uniqueness is in its availability and accessibility. For newcomers, this tool may offer opportunity for interaction with the host culture and comfort of connections with old ties from home countries. A case study carried out by Elias and Lemish (2009) with former Soviet Union immigrants seems to strengthen this argument. Results of their study suggested that the Internet reinforced the acculturation of the immigrants in developing identities when they are engaged in settling into and adjusting to their host society.

According to M. Kim (2010), the Internet functions as a survival tool that fulfills informational and emotional needs for newcomers who may be experiencing anxiety and uncertainty about their new host society and environment. M. Kim (2010) also noted that the Internet provides newcomers with an array of information and instantaneous response; it also increases the frequency and acceptance of interpersonal communications with their new society and home country. This is consistent with the

finding of Tsai (2006). Her qualitative study of 25 Taiwanese immigrant families in the United States led her to conclude that the Internet played an instrumental role in the lives of study participants in seeking information and maintaining social ties to home (Tsai, 2006). Further, Charney and Greenberg (2002) concluded while that the use of the Internet by newcomers can range from seeking information, diversion, entertainment, peer identity, good feeling and communication, what is surprising is that in their study the use of the Internet by newcomers for seeking information and communication explained 36% of the variance.

W. Chen (2010) in his study of Chinese immigrants residing in Singapore states "Internet usage is found to have a significant impact on immigrants' intercultural adaption" (p.387). This finding is similar to those of Wang, Sun and Haridakis (2009) who have identified U.S. host society Internet use as a predictor of participants' psychological adaptation. Further, the Ye (2005) study in which Asian international students living in the United States were the study subjects, found a significant correlation between length of time spent in the U.S. and host language Internet use and English proficiency. English proficiency is one of the key indicators of successful acculturation. Language is an important factor for immigrants because Kim (2002) found that "the dynamic process by which individuals, upon relocating to an unfamiliar cultural environment, establish or reestablish and maintain a relatively stable, reciprocal, and functional relationship with the environment" (p. 260), an environment deemed crucial for "a communication process placed at the intersection of the person and environment" (p. 31). It is clear, then, that the influence of the Internet goes far beyond

simply communicating between individuals and groups. It has considerable implications for culture.

The Horn of Africa Immigrants and Internet Usage

There are hardly any research studies that examine Internet use by the Horn of Africa immigrants. However, there are a few early studies that examined for the most part Internet accessibility of African countries within the context of the “digital divide”. For example, Ngwainmbi (2000) stated that computers are out of reach for most Africans because of the initial cost, cost of maintenance, obsolete and dilapidated telecommunications infrastructures, high costs of links to Internet backbones, shortage of expertise, and limited availability of electricity. On his part Adams (1997) concluded that African nations face, among other challenges, a severe lack of Internet infrastructure. Therefore, this lack of facilities presents critical barriers to Internet usage in Africa (Roycroft & Anantho, 2003). Furthermore, Edoho and Udo (2000) argue poverty and wars have been the major challenge restraining African nations from utilizing Internet infrastructure creating an everlasting digital divide.

Scholars assert that the only hope for African countries to utilize Internet infrastructure today comes with cell phones and wireless networks. This technology will be embedded in every new digital cellular phone sold in Africa, Asia and Latin America (Dasgupta, Lall & Wheeler, 2001). Mobile phone systems have particularly important implications for the digital divide, because they can be expanded rapidly into poor-urban and rural areas where the majority of these poor nations’ people are concentrated (Dasgupta, et.al, 2001).

However, wireless application protocol (WAP) also requires massive investment to provide the needed infrastructure. If this does not occur, wireless application will be limited to those who already have some kind of connection or live in better served urban areas. Cullen (2001) stated that although rapidly developing mobile telephone technology is likely to improve Internet access to some rural communities, this may be true only for those who live in areas with some land-line services and bandwidth. Those who live in remote areas most likely will remain outside normal mobile telephone service because development of mobile services in remote areas is regarded as prohibitively expensive (Cullen, 2001).

What does this digital divide in Africa mean for immigrants coming from the Horn of Africa to the United States? How does this lack of experience with Internet affect their acculturation process in the United States society? According to Prensky (2001) today's K- through college population represents the first generation to grow up with technology. They have grown up surrounded by computers, videogames, digital music players, video cameras, cell phones and all the other toys and tools of the digital age. However, those who didn't grow up as part of this digital age will always remain at a marked disadvantage such as older immigrants learning to adapt to their environment, while retaining the baggage of their past. The following section emphasis is on uses-and-gratifications theoretical perspectives as it is used in studying Internet usage and acculturation in previous studies.

Uses and Gratifications Theoretical Perspectives

Much of the research on mass communications and its role in the acculturation process of newcomers relies on a theory of uses and gratifications (U&G). The theory of uses and gratifications was first coined in the 1940s (Lazarsfeld & Stanton, 1944; Herzog, 1944; Warner & Henry, 1948). The theory has provided a cutting-edge theoretical approach to mass media, such as newspaper, radio and television and now the Internet (Ruggiero, 2000). Blumler and Katz (1974) stated that consumers of media pursue a media source that accomplishes their needs and alternate choices to satisfy these needs. Media serve the functions of surveillance, entertainment and cultural transmission for both society and individuals. The numerous gratifications attained from media are based on individuals' social and psychological requirements (Severin & Tankard, 1997). Individuals' needs stemming from societal and psychological characteristics motivate the need for media use, meaning media consumers seek out a media source that best fulfills their basic needs (Rubin, 2002).

U & G functions on the assumption that various social circumstances and psychological features motivate the need for media, in return which motivates certain expectations of that media. This expectation leads individuals to be exposed to media that would meet their expectations, leading to an eventual gratification (Palmgreen, Wenner, & Rosengren, 1985). However, there is not just one way that individuals use media; instead, the reasons for using media can be as many as there are media users (Blumler & Katz, 1974).

Swanson (1987) noted that “uses and gratifications research has made substantial contributions to our understanding of the mass communication process” (p. 237). Further, U&G studies have expanded our understandings as to why individuals use media and for what purpose (McQuail, 2010). This is contrary to the traditional media effects theories which emphasize how media affects individuals assuming that consumers of mass media are homogeneous (Katz, 1959). On their part Papacharissi and Rubin (2000) asserted that uses and gratifications studies have expanded our understanding with regard to why people use a certain medium of communication, social demographic descriptors, media behaviour, and relationship between expected and obtained gratifications that result from media use motivations.

U&G is applicable for study of the Internet usage; this is because in the Internet setting users are more actively involved communication participants, compared to traditional media (Ruggiero, 2000). U&G is “especially valuable as we seek to understand the newer, interactive media environment” (Rubin, 2002, p. 541). Therefore, the uses and gratifications theory offers an appropriate framework for scrutinizing the relationship between Internet usage and acculturation. Scholars (e.g., Althaus & Tewksbury, 2000; Eighmey, 1997; Liu, 1999; Wang, Sun, & Haridakis, 2009; Ye, 2005) have applied uses and gratification as a framework to understand the use of the Internet by individuals and the number of gratifications derived as a result. This is because information disseminated by the American mass media most likely plays an important role of creation and dissemination of knowledge about American culture (Walker & Jeffres 1999).

One of the chief assumptions in acculturation studies is that humans are adaptive by nature (Ford & Lerner, 1992). The new environment presents with it extensive life changes, including new cultural values, social rules, policies, and material environments. In addition, it involves making sense of loss of careers, social ties, social status, and social identity, which are common experiences for immigrant populations (Tsai, 2006). Humans possess a natural drive to grow and adapt as they face challenges from their environment (Kim, 2002). Further, humans “have inherited a vast array of cognitive adaptations that facilitated social negotiations” (Cerra & Bingham, 1998, p.11290).

In the process of acculturation an individual “experiences a variety of needs (e.g., need for acculturation, cultural maintenance, information seeking, entertainment, social interaction, and companionship). Cultural adaption and needs satisfaction occur through communication, including both interpersonal communication and mass communication. “These assumptions are consonant with U&G notions” (Wang, 2006, p. 14).

In the past “major social scientists have paid little attention to the role of mass media and social media in ethnics’ adaptation” (Subrvi-Velez, 1986, p. 72). In recent years, however, U&G scholars have emphasized that to further our understanding of motives, media use, and media effects, there is the need for more research that focuses on the cultural context of media use (Katz, Blumler, & Gurevitch, 1985). As a result, “we now have a clear understanding of the role of motive and gratifications, so that inquiry can include questions of societal and cultural significance” (Rubin, 2002, p. 528). Therefore, examining Internet use in acculturation utilizing the theory of U&G

perspective would advance U&G research to a broader to a wider social/cultural context (Wang, 2006).

Like other theories, U&G has its critics. Much of the criticism of U&G is directed at its early assumptions and the methodology used in early research. Most of the early studies in uses and gratifications lacked consistency and theoretical foundations for their subsequent conclusions (Littlejohn, 1989). Even the person at the helm of this theory, Elihu Katz, as well as his colleagues once noted that U & G "barely advanced beyond a sort of charting and profiling activity" (Katz, Blumler, & Gurevitch, 1973,p.514). Further, Littlejohn, (2002) went as far as to call U&G as vague in key concepts, and being nothing more than a data-collecting strategy. However, in the last three decades, the hard work by U&G scholars produced "rather vigorous theoretical growth for the uses and gratifications approach" (Zillmann & Bryant, 1994, p. 419).

The theory has also been criticized for being highly individualistic. Severin and Tankard (1997) noted that U&G emphases are too narrowly focused on the individual and ignore the social structure and place of the media in that structure. This may mean that the theory considers only the individual psychological gratifications resulting from individual media use. Critics also criticized the theory for not considering the power of media. Some media hegemony contended that U&G goes too far in claiming that individuals are free to choose the media they consume and their interpretation of it (Severin and Tankard, 1997). Further, U&G scholars mainly represent media in a positive way, specifically citing that it is capable of meeting the needs of its consumers when little attention was paid to the negative cultural effects that media may have on

society (Griffin, 1994). Furthermore, the early assumption of active viewers was challenged. According to Levy and Windahl (1984), in the 1980s the concept of “active audience” was reexamined and refined. Rubin (2002) noted with regard to this very notion that media consumers vary and are not universally active, meaning they are not equally active at all times. Overall, scholars (e.g., Liu, 2001) argued that the uses and gratifications theory as a framework is well suited for studying Internet use in acculturation. The following section of this research study focuses on the Horn of Africa immigrant acculturation characteristics.

The Horn of Africa Immigrants and Acculturation

For the purposes of clarity and common context for this study, it is important to define the population under inquiry. The Horn of Africa consists of the countries of Djibouti, Eritrea, Ethiopia, Somalia, and Sudan (Stock, 2004); however, in this study, “the Horn of Africa immigrants” refers only to individuals originated from the countries of Eritrea, Ethiopia, and Somalia. According to Stock (2004) the above three nations combined cover 2,000,000 Km² with total inhabitants of about 100 million people (82.2 million, Eritrea 5.5 million, Somalia 10.0 million) The countries of the Horn are also linguistically and ethnically linked (Joireman, 1997), creating a complex pattern of interrelationships between various ethnic groups (Fukui, & Markakis, 1994). Lewis (2009) noted that the majority of Somali speaking ethnic groups are Somalis, Djiboutian and also 97% of the Somali region in Ethiopia. Similarly, the ethnic Afar groups are represented in Djibouti, Ethiopia and Eritrea. This part of the review puts emphasis on the following items: demographic and characteristics, acculturation strategies,

socioeconomic, collectivist versus individualist, and social structure, family, gender, race, and language as they influence the acculturation process of the study subjects.

Demographic and Characteristics

Arthur (2000) asserts that the first wave of African settlers in what was to become the United States of America started in 1619; however, with the abolishment of the slave trade in the 1800s, only 350 Africans immigrated to the U.S. from then until the 1950s (Arthur, 2000). Consequently, from a historical perspective, post-slavery emigration from Africa to the United States can be described as a relatively recent phenomenon. While there were only 35,500 African immigrants in the United States in 1960s, that number quickly climbed to 1.4 million by 2007, with most of the growth taking place in the 1990s (Terrazas, 2009). This is because immigrants from the African continent initially had settled in countries that had colonial and cultural relations to the continent (e.g., Britain, France, Belgium, Spain, Italy and Portugal) (Takyi, 2002).

Putting aside those Ethiopians and Eritreans who came with student visas to obtain their education in the 1960s, the influx of Ethiopians and Eritreans to the United States did not begin until the late 1970s and mid 1980s when the United States lifted the restriction on the number of citizens from each country who could immigrate to the United States in 1965. Until the passage of the Refugee Act of 1980, the U.S. government had no official policy of allowing Africans to enter the country as refugees (Woldemikael, 1997). Since the new law allowed up to 120,000 immigrants to be admitted legally to the United States annually (Arthur, 2000), it opened the door for Ethiopians and Eritreans to escape a troubled home region. From 1976 to 1994, some

33,195 refugees entered the U.S., and an additional 4,643 were granted asylum.

Ethiopians and Eritreans made up 70 percent of all Africans who were granted refugee status to the United States. By 1993, 93 percent of refugees who emigrated to the U.S. from the continent of Africa were either Ethiopians or Eritreans (Wlako, 1997).

Between 2000 and 2007 alone, some 71,140 Ethiopians and 1,116 Eritreans refugees and asylees were admitted to the United States (Terrazas, 2009). The 2011 U.S. Census Bureau reposted the number of Ethiopians in the United States to be 182,896. Similarly, the 2011 U.S. Census Bureau documented 34,876 Eritreans immigrants to be residing in the United States. However, unlike those early individuals who came with student visas with the aim of returning to their home countries, these immigrants and refugees were here to make the United States their permanent home (Takougang, 2003).

Similarly, while there were virtually no Somalis counted in the 1990 United States census, by 1994, the Somalis replaced Ethiopians and Eritreans as the largest African refugees to resettle in the United States. The most recent report by the 2011 U.S. Census Bureau reported 127,326 Somalis immigrants to be residing in the United States. Somalis (almost 100 percent Muslim) with a single language are characterized as one of the most ethnically and culturally homogenous people in Africa (Centers for Disease Control and Prevention (CDC, 2008).

Once in the United States, most Ethiopian and Eritrean immigrants are concentrated in a handful of cities such as Los Angeles, Washington, D.C., Minneapolis-St. Paul, and New York City (Arthur 2000). However, in the case of Somalis, who

constitute one of the largest African-born black Muslim immigrant groups in the United States, the largest concentrations are in Minneapolis, Minnesota and Columbus, Ohio. It is also true that a considerable number of Somalis live in Washington, D.C., Atlanta, Chicago, and Seattle (Kusow, 2006). It has been reported that Minnesota, which is home to some 60,000 Somalis, is chosen by Somali immigrants because of its good opportunities such as strong social services and good educational and health care systems (Darboe, 2003).

Ethiopians and Eritreans share the same cultural attributes. These populations self-identify themselves with Somali and Sudanese immigrants, making the culture of the Horn of Africa an exceptional blending of these diverse cultural influences, and a real sense of affinity exists amongst these groups (Arthur, 2000). However, in the case of the Somalis, social stratification as well as cultural identities, for the large part, is based and determined by clanism. Clanism is a system of social differentiation where memberships are determined through shared mythical ancestors (Kusow, 2006). This clanism follows the father's blood-line (Schulze, 2010). On the other hand, while Somalis are considered to be fundamentally democratic, most of the decisions are traditionally made by a council of males, and factors such as age, ancestry, wealth, and gender do influence decision making (CDC, 2008). These aspects still exist within the Somali immigrant communities in the United States; however, that the majority of Somalis in Diaspora do depend less on clans for its contribution to conflicts back home is obvious (Schulze, 2010).

For newcomers from this part of the world, the first months and years in the United States can be distressing and challenging. A significant number of these people suffer from additional complications such as mental issues (e.g. depression or post-traumatic stress) and/or physical injuries resulting from war violence. However, with a strong determination to succeed coupled with an admirable work ethic they usually survive and oftentimes thrive and become active members of the community. When hopes dissipate and times get rough, those who came before them provide new arrivals with much needed help and comfort. Newcomers choose their settlement areas in ways that can enable them to tap into existing networks of support, such as access to temporary housing and job opportunities (Arthur, 2000).

Immigrants' Socioeconomic Success and Acculturation

Putting aside the circumstances under which immigrants left their countries, immigrants come in search of a better life and to build a better future for their children (Arthur, 2000). However, different scholars have noted that among other variables socioeconomic status is a key contributor for immigrants upward mobility (Brown, & Bean, 2006; Buchmueller, Sasso, Lurie, & Dolfin, 2007; Read, Emerson, & Tarlov, 2005). Thus, socioeconomic success does play a positive role in the successful acculturation of immigrants. The "Classic theories of assimilation assumed a unified economy in which immigrants started at the bottom and gradually moved up occupationally, while they gained social acceptance" (Wilson & Portes, 1980). It may have been possible for immigrants to move up the pay ladder when the United States industrial economy offered a diversified labor market (Barondess, 2008). However,

given the shift from industry to a competitive market system dependent on technology much different from that of Irish or Italian immigrants who arrived during the expansion of industrialization faced, it makes it difficult for immigrants to start at the bottom and move up socioeconomically (Hirschman, 1983).

Therefore, “the path to achieving the American dream (or to successful acculturation) is not the same for today’s newcomers as it was for earlier immigrants who flourished on plenty of factory jobs that paid a decent wage” (Nguyen, 2006, p. 314). As such, contemporary immigrants “without a college degree may be trapped in a permanent underclass, a hyperghetto human warehouse“(Nguyen, 2006, p. 314). This shift presents a challenge to the acculturation process of the Horn of Africa immigrants; however, one should equally expect this economic shift to affect those in the lower socioeconomic part of this society as well (Waldinger, Ward & Aldrich 1985).

Nguyen (2006) has argued that “the contexts of reception that led to the eventual incorporation of early immigrants were not the same as those that greet today’s newcomers” (p. 314). Such economic shifts can affect immigrants’ acculturation process. In justifying his position, Nguyen (2006) stated: (1) unlike early immigrants the immigrants of today are greeted by an economy where there are increasing inequalities in income and wealth. (2) Immigrants of today face concentrated poverty as a result of institutional discrimination and segregation as well as the suburbanization of middle-class population and jobs. As a result, poverty has become more concentrated in inner cities where most immigrants settle. (3) Finally, the European immigration of the 1920s was brought to an end by the Depression and restrictive laws. As such, the children of

these immigrants left without new immigrants from their parents' country to replenish their communities and reinforce their cultural values.

Recent literature indicates that immigrants with less literacy are more likely to earn significantly lower wages and experience higher rates of unemployment, and live in poverty (Creticos, Schultz, Beeler, & Ball, 2006). Likewise, a study carried out by Cichon, Gozdzia, & Grover (1986) concerning the economic and social adjustment of immigrants suggested that Ethiopian immigrants in the United States experience difficulty adjusting to the fast pace and "look after yourself" attitude of an advanced capitalist society, resulting in an unusually high rate of suicide and depression. Similarly, a study of Somali immigrants by Kapteijns and Arman (2008) concluded that the children of underprivileged and visibly minority immigrants are expected to be at greater risk than their parents. However, when hopes dissipate and times get rough, those who came before them provide them the much needed help and comfort. As a result, these immigrants choose their settlement areas in ways that can enable them to tap into existing networks of support (Arthur, 2000).

Collectivist Versus Individualist Societies and Acculturation

Edoho (2001) noted that "Although the degrees of individualism and collectivism vary within and among countries, it is clear that African countries are collectivist, unlike the United States, which is more individualistic" (p. 55). Therefore, the cultural values held by the Horn of Africa immigrants would contrast to that of the United States culture. Arends-Tóth, Van de Vijver, (2008) noted that while a collectivist culture has the tendency of valuing interdependence and working for the common good

of the broader group, an individualist culture tends to favor autonomy, freedom and the pursue self-interest. As such, in recent years cross-cultural psychology scrutinized cultural differences through the lens of collectivist versus individualist societies (Wolf, 2010).

According to Kapteijns and Arman (2008), Somali immigrants in the United States are known to go out of their way to live together in the same towns and their solidarity and mutual support are also seen as extraordinary. Similarly, Eritreans are known to keep a strong tie with their birth home country and “maintain a strong national identity” (Okome, 2002, p.591). This may be true across the collectivist cultures. What is more interesting is that despite the uniqueness of societies throughout the world collectivist cultures seem to prioritize families, group loyalty and mutual obligation. For example, X. Chen (2000) noted that the Chinese, living as a nation rooted in collectivistic culture, “maintain harmonious relationships with others is an index of individual social maturity” (p. 332). Similarly, in African culture affinity goes beyond extended family members. It also accommodates the ancestors. This affinity is “based on mutual aid, care giving, and communal interest (Young 2003, p. 163). Further, the extended family as cultures seems to be the accepted essential conviction of all Africans as it is articulated in a proverb by the Ashanti of Ghana: “I am because we are, without we I am not, and since we are, therefore I am” (Mbiti, 1990, p. 141). As such, for these immigrants to reject collective well-being, interconnectedness, interdependence and ethnic backgrounds for the sake of forming a homogeneous society may lead to confusion and psychological distress which may hinder their acculturation process.

Social Structure and Acculturation

Adjusting to life in a new country can be full of challenges and obstacles. Therefore, the challenge facing immigrant groups in adapting to the mainstream American way of life are countless and varied (Waters & Jiménez, 2005). This is no different for immigrants coming from the Horn of Africa. These challenges can range from social and family values, gender, race, economy and language. Especially, social and family values that these immigrants' populations adhere to and valued for thousands of years may conflict with social and family values of the United States.

In the culture of the Horn of Africa nations, as it is with most African nations, family is deeply valued. They adhere to nuclear families and as such usually live together (CDC, 2008). On the contrary, learning to be autonomous and self-sufficient, which the culture of the United States demands, may not be preferable to the Horn of Africa immigrants. For example, in a collectivist culture, children are socialized to nurture self-control and to lessen self-affirmation (Rudy, Gruses & Wolfe, 1999). However, the very foundations that advocate self-control may come under question when the children become the "caretakers and translators for their parents" (Daptejns & Arman, 2008, p. 24). In their study of Somali immigrants, Scuglik, Alarcón, Lapeyre, Williams, and Logan (2007) state that:

Because many children speak English more fluently than their parents, they become the communicators with the outside world. This situation has dramatically shifted the family system by placing children in a position of control within the family. This not only allows children to 'edit' information

their parents receive, i.e., school concerns, but it also distorts the normal parent-child roles. (p.588)

Language Proficiency and Acculturation

Limited English proficiency is one of the critical challenges facing immigrants from the Horn of Africa. Bhagat and London (1999) asserted that problem of language is one of the determinant factors of acculturation. Further, Koshen, (2007) when speaking of Somali parents noted that “Our inadequacy is such that our children have to accompany us everywhere and translate for us: how can we command respect when we are so dependent on them?” (p.85). Therefore, limited proficiency in the English language appears to be a major obstacle especially for immigrants coming from the Horn of Africa, since these countries were not completely colonized by Europeans or English speaking countries, as opposed to other African countries (Gow, 2001).

According to Nee and Sanders (2001) social capital is accumulated through social exchange over time and is reflected in the sentiments of obligation and solidarity. Creticos et al. (2006) indicate that lack of English proficiency can isolate immigrant families from the larger community, preventing them from interacting with American-born neighbors. Yet, immigrants of all ages for the most part put in great efforts to acculturate themselves to the new environment that confronts them (Prensky 2001).

C. Kim, Laroche and Tomiuk (2001) in an extensive literature review on acculturation scales found 46 of 50 containing language related items making language the principal determining aspects for acculturation. Equally, Berry (1989) categorized language fluency both host and ethnic as the main predictor of acculturation. Measuring

the degree of acculturation of immigrants into the host society, apart from English language fluency also includes but is not limited to the rate of intermarriage, ability to speak the host society language, language spoken at home, naturalization status, beliefs practices and behaviors (Alba & Reynolds, 2002; Brown & Bean, 2006; Jimenez & Waters, 2005). However, the most important indicator of acculturation is proficiency in the host society language in this case English. Also, proficiency in the host society language is identified to broaden their social network to include that of the host society (Akresh, 2006).

Family Values, Gender Roles in Acculturation

John Mbiti (1990) asserts that marriage is the core element that cements family values in African culture. He further states that “for African peoples, marriage is the focus of existence” (Mbiti, 1990, p. 130). However, in her study Agunloye (1983) concluded a majority of the marriage beliefs of Africans were in direct conflict with those of the United States. This has created turbulence with African immigrant communities in the United States. Ndubuike (2002) noted that “a major issue with the African family in America is the problem of control and gender role” (p. 79).

In the Somali culture, as it is with most African cultures, women have important economic roles; nonetheless, it is critical for the male to be perceived as the person in control, making it male-centered. According to Ndubuike (2002) for African immigrant women in the United States, their socioeconomic rise is a predictor of their marital authority, often seen as a major threat to the male. As a result, the male position in the

male-centered household becomes weakened, making it difficult for most males to adjust to their new role (Arthur, 2000; Ndubuike, 2002).

Race and Acculturation

Race and discrimination are other factors that challenge the acculturation process of the Horn of Africa immigrants. “Blackness in North America is embedded in the dominant classification system where social stratification is primarily based on color categories that divide society into black and white” (Kusow, 2006, p. 547). On the other hand, African immigrants came from a society “where skin color does not represent an important category of social understanding” (Kusow, 2006, p.533). According to Berry (1998) accessibility of the host society in stigmatizing immigrant populations may be a powerful predictor of how stressful and complex the acculturation experience may be for immigrants groups. Furthermore, in their study of Mexican American youth, Romero and Roberts (2003) found a link between depressive symptoms and acculturation and discrimination.

The Horn of Africa immigrants in particular and foreign-born blacks in general regardless of their nationality or origin, are not exempt from this reality of racial discrimination. As such, these immigrants face all kinds of racism that can hinder or slow their integration process. Freeman (2002) noted that despite their socioeconomic status and education, foreign-born blacks as well as native-born blacks equally face segregation. A study carried out by Kusow (2006) of Somali immigrants population here in the United States and Canada “reveals the problematic nature of racial categories and confirms the situational nature of racial identities” (p. 533).

Work and Occupational Profiles

Creticos, Schultz, Beeler & Ball (2006) noted that immigrants comprise a significant part of the backbone of the American labor market, a claim solidly confirmed by the 2010 United States Census which indicates that 15.9% out of the 140.6 million workers engaged in the U.S. civilian labor force in 2009 were indeed immigrants (Batalova & Terrazas, 2010). However, there are multiple variables that are dissuading these immigrant populations from fully participating and succeeding in the American workplace, such as lack of proficiency in the English language and formal education, attitudes and policies by local and federal government agencies as well as in the business world.

Hirschman (1983) noted that education is an achievement in the socioeconomic hierarchy as well as a resource that influences subsequent social and economic mobility. As such, immigrants' education is seen as the primary step toward full participation in American society. Advanced education may lead to immigrants becoming financially secure and fully participating in the United States culture. Likewise, Becker (1964) stated that the most impressive piece of evidence is that more highly educated and skilled persons almost always tend to earn more than others. As a result, unemployment rates tend to be inversely related to the level of skill. It has also been stated that the mix of knowledge and capital immigrants arrive with subsequently shapes the trajectory of their incorporation into the host society (Nee & Sanders, 2001). Research also shows that literacy and fluency in English are related to economic self-sufficiency for immigrants (Burt, 2004). However, most of the immigrants from the Horn of Africa

have neither the education nor knowledge capital compatible with work environment of the United States. According to Lohrentz (2004) many of these immigrants have been victims of circumstances and events quite beyond their control and have in many instances suffered untold and unimaginable misery, pain, and trauma. Kapteijns and Arman (2008), for example, when describing Somali immigrants in the U.S., referred to them as a diaspora's people blasted from one history to another in a great tragedy.

In addition, these immigrants often spend years in refugee camps in neighboring countries before coming to the United States, and during the years they may not have had any formal education; as a result, they often have a serious education deficit (Kapteijns & Arman, 2008). Furthermore, most of these immigrants come to the United States when they are adults, leaving behind their families and relatives scattered all over the continent or in refugee camps. As a result, they are often forced to hold two full-time entry-level jobs and barely earn enough money to help those whom they left behind.

It has been shown that immigrants with limited-English proficiency are more likely to earn significantly lower wages and experience higher rates of unemployment, and live in poverty (Creticos, et al, 2006). This is even true with highly educated immigrants who are literate in languages other than English. They tend to have non-continuous employment and earn less compared to those who are literate in English (Burt, 2004).

There seems to be no single theory or plan that is able to fill the gap in knowledge of how immigrants from the Horn of Africa can be integrated successfully

into the workplace, due to the varied and extraordinarily complex reasons discussed previously. In addition, attitudes and policies towards immigrants' populations in the workplace have been both ambiguous and ambivalent, resulting in highly localized initiatives (Creticos, et al. 2006). The strategy that is in place to accommodate and facilitate immigrants' successful movement into the workplace can at best be described as insufficient (Creticos et al, 2006). Some of the obstacles to successful integration of immigrants from the Horn of Africa to the workforce have been the very same system and models policymakers have used for all immigrants irrespective of their origin. Policymakers base their workforce development systems on models that assume that the workers in the U.S. are born and educated in the United States (Creticos, et al. 2006). Contrary to this, however, the United States' demand for cheap labor to compete in global markets is an incentive for further immigration to the United States. Most of this demand is met by the labor of immigrants.

Despite the cheap labor, employers consider these immigrants as increased cost with regard to providing them with the much needed training in English and basic skills. There is the fear that if these individuals, in whom they have invested, became too skilled will find work elsewhere (Creticos, et al. 2006). This also affects the occupational profiles of the Horn of Africa immigrants where they are confined to low-skill jobs as an 'indirect policy' of some employers.

Employers pursue a preference on how they select their workforces (Hodge, 1973), that also clearly puts the Horn of Africa immigrants at a disadvantage. These preferences are based on ethnic and racial characteristics: Whites are hired first followed

by Asians, then Hispanics, and Blacks at the bottom of the ladder (Waldinger, 1996). This does not leave much room for black immigrants who came from war ravaged countries and have spent years of their lives in refugees' camps with limited work skills and little English proficiency. Therefore, the barriers facing the Horn of Africa immigrants in finding jobs that match their educational and occupational qualifications become even more challenging.

Historically, most immigrants from the Horn of Africa enter the U.S economy as low-wage workers in the service sector. Students from Ethiopia and Eritrea started a pattern in the late 1960s and early 1970s working part-time as parking lot and gas station attendants, waitresses, taxi drivers, night guards, hotel and hospital maintenance personnel, and nurse's aides (Woldemikael, 1997). In Minnesota, for example, the meat and poultry processing plants that have grown to be a multi-billion dollar business in the last decade have as the majority of their workforce immigrants with a considerable number of them being Somalis and Sudanese (Fennelly & Leitner, 2002). This cycle continues to date, as those earlier settlers help the newcomers find jobs that are similar to theirs (Woldemikale, 1997). The majority of the Horn of Africa immigrants still perform in entry level job, and this leaves them under-represented in managerial and high-level positions and thus, earning much lower salaries than native born workers (Burt, 2004).

Those few who are fortunate enough to break from this trend have opened their own businesses, such as liquor and convenience stores, restaurants, gas stations, taxi cabs, real estate agencies, and computer and printing services. All of these socio-

demographic and occupational factors give these immigrants lower scores on the human capital variables (Djamba, 1999). Creticos et.al, (2006) noted that, in general, integrating these immigrants to the high-tech American workforce requires a level playing field for all workers and businesses through the development of policies and practices involving all stakeholders.

Acculturation Strategies

Acculturation is a challenging and difficult process. Immigrants who come from the Horn of Africa countries are not exempted from such obstacles and challenges. However, what is unique about these particular immigrant populations is that most of them often spend years in challenging transition as refugees in neighboring countries within Africa before coming to the United States. Many of these immigrants have encountered death and survived (Lohrentz, 2004). A good number of these individuals in the United States are here as a direct result of forced circumstances and may be classified as refugees from war, which adds one more layer to immigrants' experiences.

Immigration brings with it an immense amount of stress for immigrants (Portes & Rumbaut, 1996). Therefore, theorists, especially those who scrutinize psychological adaptation or studied acculturation from the perspective of acculturative stress (e.g., Farver, Bhadha, & Narang, 2002; Luque, del Carmen García Fernández, & Tejada, 2006; Van Oudenhoven, Prins, & Buunk, 1998), have suggested that immigrants who prefer integration as their acculturation strategies fare better than those who chose otherwise. Confirming such findings, a study carried out by (e.g., Beiser, Dion, Gotowiec, Hyman & Vu, N., 1995; Davies, & McKelvey 1998) suggested that

individuals who chose acculturation strategies other than integration experience greater stress, anxiety and psychological problems associated to acculturation. Unlike assimilation, which forces immigrants to give up their cultural distinctiveness, and can cause them to suffer from acculturative stress, acculturation, on the other hand, gives immigrants the option of integration as their adoption strategy, giving them a strategy which allows them to maintain their own cultural values while in continuous contact with the dominant group. “Overall, marginalized individuals suffered the most psychological distress, including problems with self-identification and cultural alienation which adversely affected their self-esteem” (Farver, Bhadha, & Narang, 2002, p. 12). Berry (2006) noted the best way for immigrants to acculturate into the host society culture is to participate on the day-to-day life of the larger society while maintaining their own cultural values.

In their study of Somalia youth immigrants in Minnesota, Kapteijens and Arman (2008) signified the importance of these immigrants retaining their native language. The above authors found a correlation between maintenance of language of origin and success rate in school and acculturation, as well as a sense of continuity with their communities. This finding is similar to that of Fernández-Barillas and Morrison (1984), a study of male Mexican-American college students, which indicated biculturalism to be positively correlated with psychological adjustment. Confirming such findings, (e.g., Berry et al., 1989) noted empirical evidence indicates that immigrants favor integration as their adaption strategy into the host society. Therefore, Kapteijens and Arman (2008)

disapprove of the propensity to adopt an English-only language approach as it increases acculturative stress and diminishes native language and values.

Likewise, a study of Somali teenage girls' social and cultural capital at school carried out by Bigelow (2007) found a strong correlation between native language proficiency that indicated a close personal tie to their parents; the author believed that this gave youth access to many sources of social capital. Retaining their native language may especially be of importance for the Somali immigrant communities since Somali "values and culture have been passed on from one generation to the next through the rich oral tradition of the Somali people" (Kruizenga, 2010. p. 3). This is also true with most Ethiopians and Eritreans; however, these two countries have indigenous writing systems called 'Ge'ez' that are unique to their own societies, unlike Somalia which "had no written form until 1972, when a Somali script, based on the Roman alphabet, was adopted" (Putman, & Noor, 1993, p. 12).

Acculturation of the Horn of African Immigrants in Minnesota

Fennelly, Huart, and Coalition (2009) reported that in the year 2008, the number of foreign-born in Minnesota numbered 386,380. This is only 7.4% of the total population of Minnesota. Nearly half of these immigrants came to Minnesota in the last decade. Of these, African immigrants make up 40%. Although the population of immigrants in Minnesota is much less of the national average, Minnesota welcomes a higher percentage of refugees at 23% compared to 17% in the U.S. (Fennelly, et al., 2009). The overall rate of increase for immigrants has gone up by 130% in the last decade. This rate of increase is higher than the national growth of 57% (Fennelly,

2005). Furthermore, the percentile for African immigrants grew by 621% (Ronningen, 2002), and Minnesota is the first state to host Somali immigrants (Ronningen, 2002).

Knowing the exact number of Somalis, Ethiopians, and Eritrean immigrants in the State of Minnesota is a difficult task. First, most of these immigrants arrived in Minnesota over the last decade. Second, these particular populations are considered to be highly mobile and statistically elusive. Third, it is very hard to account for domestic migration movement of people within the United States (Ronningen, 1999).

The U.S. Census Bureau's 2010 American Community Survey estimated data indicates (e.g. 2,067 Eritreans 14,496 Ethiopian and 34,458 Somalis) immigrants admitted to Minnesota; however, this number speaks only of those individuals who arrived in Minnesota directly from the sending countries. The actual number is likely well above what has been reported. According to Dischinger (2009), Somalis residing in Minnesota are estimated to be at around 70,000.

According to Fennelly et al. (2009), the immigrant populations in the U.S. and Minnesota include both the highly educated as well as individuals with few years or no formal schooling. Nonetheless, immigrants in the year 2008 encompassed 17% of all new business owners (Fairlie, 2008), and the United States Council of Economic Advisers estimates net gain from immigrants to be some \$37 billion per year. As of 2002, 3% of businesses in Minnesota were owned by immigrants bringing in annual sales exceeding \$2 billion.

Although immigrants populations such as Somalis are attracted to Minnesota because of other Somalis who came before them (Dischinger, 2009), the strong

economy, good quality of life, educational opportunities and civic and cultural life Minnesota has to offer is also a crucial element that explains why East African immigrants choose Minnesota as their home (The Minneapolis Foundation, 2010).

In 2004, there were about 120 African owned businesses along Minneapolis' Lake Street alone (The Minneapolis Foundation, 2004); however, the full contribution to Minnesota's economy by the Horn of African immigrants is unknown. What we do know is that good numbers of these businesses are owned by Somalis, Ethiopians and Eritreans. Further, Samatar (2004) noted that as of 2004 there were 600 Somali run businesses in the United States.

Considerable numbers of these immigrant populations suffer from lack of employment. For example, in 2008, some 42% of Somalis 16 years of age and older in the United States were unemployed. As such Castles and Miller (2003) asserted that self-employment by immigrants can be seen more of a strategy of survival than a sign of socioeconomic success. Therefore, the successful integration of the above immigrants is essential for the economic and social success of these individuals and the state as a whole (Fennelly, 2005). However, if this is not confronted, unemployment combined with having to learn a new language, culture, and other challenges that the new environment throws at them as well as the physical and emotional damage some of these immigrants endured prior to arrival can impair their integration process (CDC, 2008).

Arthur (2000) noted that the "African refugee community in Minneapolis–St. Paul reveals that civil wars, political unrest, violence, and factional conflicts are the core of Africa's refugee problems" (p.59). Therefore, Fennelly, et al (2009) asserted that the

only way these immigrant groups can realize their potential is to integrate them into Minnesota communities; an integration that may require examining barriers such as school and residential segregation, xenophobia, and discrimination that may limit their education and occupational potential. Integrating these immigrant populations into Minnesota communities involves building social ties and networks with the host community, components that are crucial for social, cultural and economic survival (Arthur, 2000).

Summary

Although the purpose of this research study is to investigate how the Horn of Africa immigrants' Internet usage reflects their acculturation process into the United States culture, the study of culture is a complex undertaking. "Cultural values are emotion-laden, internalized assumptions, beliefs or standards that shape how people interpret life experiences" (Merriam & Mohamad, 2000, p. 46). Further, "Migration is stressful. It demands emotional, social, cultural, educational, and economic adjustments" (Thomas, 1995, p.131). On the other hand, "being culturally competent first requires clarification of one's own history, beliefs, values, prejudices, and life experiences (from privilege to personal oppression) that form personal identity, and to know how this impacts our interactions with others" (Blevins, 2007, p. 13). It gets even more complex if there are widely held assumptions that 'cultural capital' is the culture of the dominant group in a society. In addition, promoting integration of immigrants into the host communities may be more challenging when, in fact, there are no immigration policies and federal laws in place that explicitly support promotion of social, economic

and civic integration into the United States despite the fact that the country is shaped by immigration (Fennelly, 2005).

Overall, the foregoing review and analyses of the various literature underscores and emphasizes the importance of the study of acculturation. It is also clear that both interpersonal as well as mass communications are key features by which immigrants negotiate their new environment. Likewise, it is clear that the Internet as a tool complements both interpersonal and mass communications and has the potential to facilitate the acculturation process of immigrants.

However, as a new informational and interactional phenomenon, the influence of the Internet on the acculturation process of immigrants is largely unknown. As such, examining to see if relationships exist between Internet usage and the acculturation success of the Horn Africa immigrants is vital. The outcome of the study can be used to further research that may provide direction on how to effectively acculturate immigrants who come from this particular part of the world. Furthermore, it would provide quantifiable data to those dealing with the acculturation process of the Horn of Africa immigrant populations in the United States in general, and Minnesota in particular, which has become a primary settlement area for this group. It would also add empirical evidence to this yet maturing body of knowledge.

In the following chapter, I have outlined the research design, population and sampling, data collection methods, instrumentation, validity and reliability of the scales as well as the data analysis procedures proposed for this study.

CHAPTER THREE

METHODOLOGY AND METHODS

The purpose of this study is to examine the influence of the Internet on the acculturation process of the Horn of Africa immigrants. This chapter provides a description of the research methodology and methods used in this study. First, the study purpose and the research questions are reiterated and a description of the research design is provided. Following this, in the second and third sections of the chapter, a description of the population under scrutiny and sample, and a summary of the pilot study are provided. The data collection, sample size, and descriptive summary of the instruments used in this study are provided in the fourth, fifth, and sixth sections of the chapter respectively. Finally, the procedures used to analyze data, and the chapter summary are detailed.

The overarching research question guiding this study is: what is the relationship between Internet usage and acculturation of the Horn Africa immigrants in the United States culture? To achieve this, the following two secondary questions were considered:

Q1: What is the relationship between the type of Internet usage and acculturation of the Horn of Africa immigrants?

Q2: What is the relationship between the frequency of Internet usage and acculturation of the Horn of Africa immigrants?

In order to answer the above questions, I have examined demographic variables which may influence both Internet usage and acculturation (see Appendix D).

In this study, the independent variables are Internet usage and perceived language competency, while the dependent variable is acculturation. A relational study method was used to examine the relationships between the independent and dependent variables. The data for this research study was obtained through a self-administrated questionnaire using well established scales.

Research Design

The study was designed “to determine which of the influence variables can be combined to form the best prediction of each criterion variable” (Gall, Gall, & Borg, 2007, p. 356). Multiple regression was used to investigate the practical relationships between the dependent and independent variables, to determine what might be causing the variation in the dependent variable and what might be the best predictor.

Multiple regression is a flexible robust method of data analysis when the quantitative dependent variable is the subject of scrutiny in relationship to various explanatory variables. The relationships may be nonlinear, and the independent variable may be quantitative or qualitative, which means that with this method one can examine the effects of a single variable or multiple variables — with or without the effect of other variables taken into account (Cohen, Cohen, West, & Aiken, 2003). The nature of my study lends itself to a multiple regression design that falls under the positivist research epistemology.

As the purpose of this study is to examine the influence of the Internet on the acculturation process of the Horn Africa immigrants, a survey designed in the form of a questionnaire was used. Surveys are appropriate tools for measuring characteristics of a

large population (Babbie, 2001). This makes survey-based research design an extensively used method of collecting data about phenomena that may not be directly observable (Gall et al., 2007). Furthermore, survey research is a frequently used method both with Internet and acculturation research (e.g., Gudykunst, 2002; Rubin, 2002). Therefore, the survey research method is suitable for investigating the variables offered in this research study.

Research Population

The research participants consisted of immigrants from the Horn of Africa countries (i.e., Eritrea, Ethiopia, and Somalia) currently residing in the Twin Cities metropolitan area of Minnesota in the United States of America. They include immigrants, refugees, and asylees. The immigrants from the Horn of Africa residing in Minnesota are significant in number. However, knowing the exact population is problematic since this particular group of immigrants is an exclusively recent phenomenon. What we do know is that they are part of a growing segment of immigrant populations locating in Minnesota.

The U.S. Census Bureau's 2010 American Community Survey estimates the number of the three ethnic populations now in Minnesota to be 2,067 Eritreans, 14,496 Ethiopians, and 34,458 Somalis. This number consists only of those who came directly from the sending countries and does not account for secondary migration. As indicated in Chapter Two, the actual number of the Horn of Africa immigrants now in Minnesota is believed to be much higher than that estimated above.

Data were collected from Eritrean, Ethiopian, and Somali immigrants who arrived in the year 2000 and later, but have lived in the United States at least six months. During this time period, I expected the immigrant populations to have had some experience with the Internet. I contacted the leaders of the four major adult education and community education centers that provide services to these populations to inform them about the study and to ask for their collaboration. They were eager to assist with the research and provided me with the documentation needed to satisfy the requirements of the University of Minnesota, Institutional Review Board (IRB). Moreover, these leaders provided me material support such as space and technology to facilitate the data collection process. In total, four adult education and community education centers participated in this study. The sample is described beginning on page 100.

Instrumentation

The study was designed to examine the relationship between Internet usage and acculturation of the Horn of Africa immigrants in Minnesota. The three questionnaires assessed: (a) Internet usage, (b) perceived language competency in both host and ethnic languages, and (c) acculturation. Additionally, demographics information such as gender, ethnic background, immigrant status, age, years lived in the United States, and education level were collected. All three scales were translated into the three languages of the three ethnic groups that are the subjects of this study.

Berry and U. Kim (1987) identify three criteria for selecting an instrument for cross-cultural use. These are: (a) “clarity and conciseness of items, both for purposes of translation and for use, in some cases, in a person’s second language; (b) the likelihood

that the items refer to problems likely to be common to all peoples everywhere and (c) responses to an item should exhibit a correlation with an individual's degree of acculturation" (p.500). Since those who participated in this study are immigrants, who for the most part are from nations in Africa that were colonized by non-English speaking countries, and have limited English language skills, I undertook the task of making sure that the scales used in this study were clear and that the language involved was simple enough for them to be able to answer the items without much difficulty. All study participants were enrolled in programs to learn or improve their English language skills. Additionally, the scales were translated into the native languages of participants. Since the levels of education and literacy in their own languages could not be assumed or ascertained, the scales needed to be very short. In this section of the chapter, I briefly illustrate examples of survey items and measures of the key variables. Table 2 provides the scales used to collect data and their total items.

Table 2

Description of Constructs and Scales

Construct	Source of Items	Number of Items
<i>Internet Usage Scales</i> ¹	Papacharissi & Rubin (2000)	
U.S. Networking (Internet interaction with Americans)		4
U.S. Entertainment (using U.S. websites)		3
Ethnic Networking (Internet interaction with own group)		3
Ethnic Entertainment (using ethnic websites)		3
<i>Perceived English Language Competency</i> ²	Ying & Liese (1990)	
Perceived English Language Competency		3
Perceived Native Language Competency		2
<i>The East Asian Acculturation Measure (EAAM)</i> ³	Barry (2001)	
Assimilation		8
Separation		7
Integration		5
Marginalization		9
Total Items		47

Note: ¹= influenced by the study of Papacharissi and Rubin, (2000); ²= significantly draws on the study of Ying & Liese (1990); ³= Barry (2001).

Measuring Internet Usage

Internet usage is an independent variable in this study. It was measured in two ways: (1) Internet usage with Americans (those born in the U.S.) and Internet usage with ethnic populations. The type of Internet tool usage and the frequency of usage were also assessed. Previous researchers have assessed host media and ethnic media usage using basic and simple formats. For instance, host media use has been assessed simply as average time spent watching U.S. television, reading U.S. newspapers, and listening to

U.S. radio (Rizk, 1986). Similarly, ethnic media usage has been assessed as average time spent watching ethnic television, reading ethnic newspapers and listening to ethnic radio (Chaffee, Naas, & Yang, 1990). As such, motives and attitudes such as affinity and realism have been related to different patterns of television viewing (Rubin, 1983).

Unlike traditional media, the Internet enables both mass and interpersonal communications and encompasses host and ethnic media (Wang, 2006); in addition, “patterns of exposure or use (i.e. amount of use, duration of use, types of use) and attitudes are also relevant to the study of the Internet” (Papacharissi & Rubin, 2000, p. 181). Papacharissi and Rubin (2000) describe how they measured Internet usage:

We operationalized the amount of Internet use as the total number of hours of Internet use in a day. Respondents were presented with a grid, and asked to fill out how many minutes they used each type of Internet facility (i.e., e-mail, newsgroups, chat room, browsing, and other) yesterday and on an average day. We then summed and averaged these two numbers for each type of use. Thus, it was possible to analyze each type of use separately. A total of overall use was also obtained. (p. 184)

Similar methods have been common with recent Internet research (i.e., Sun, 2004; Wang, 2006). Nonetheless, “few studies established the validity of such an Internet use measure” (Wang, 2006, p. 77). For example, English is the language principally used on Chinese ethnic Internet; however, due to the predominantly Chinese content, it is considered to be ethnic media (Liu, 1996). Contrary to this, Ye (2005)

utilized language as the decisive factor to categorize East Asian international students' English-language Internet use and native-language Internet use.

For the purpose of this study, Internet usage was measured on a 4-point Likert-type scale influenced by the study of Papacharissi and Rubin (2000). I asked research participants to report the type of Internet they use both with individuals from the host (U.S.) society and their own ethnic group on a 4-point Likert-type scale ranging from *not at all* (0), *monthly* (1), *weekly* (2), and *daily* (3). The items, their means, and standard deviations for the 13-item Internet usage scales for both interaction with Americans and their own ethnic groups is presented in Chapter Four in the Descriptive Results section. The scale is reported in (Appendix A). After performing a factor analysis on all items, the following item was eliminated from the analysis due to weak factor loading: "*How often do you interact on LinkedIn and other job related websites with people of your own ethnic group?*" This brings the total items in the Internet usage scale to 13.

Measuring Perceived Language Competency

Perceived language competency, both host (U.S.) and ethnic, is the other independent variable in this study. It was measured using a scale based on a study by Ying and Liese (1990). The three perceived English language competences were adapted with considerable modifications from that study, while the two perceived ethnic language competencies were added to complete the scale.

The ability to communicate in the host country's language, in this case English, has been shown to be an extremely important component of immigrants' success in their

new environment. To illustrate, Creticos et al. (2006) indicate that lack of English proficiency can isolate immigrant families from the large community, preventing them from interacting with American-born neighbors. Likewise, Berry (1989, 1991, 1992), from his extensive literature review showed that both host and ethnic language influence immigrants' acculturation.

Similarly, Kuku, Orazem and Singh (2006) noted that 80% of websites in the world are in English and most of the rest are in a language of international commerce (French, German, Italian, Japanese or Spanish). They show that proficiency in the English language is key for individuals and groups so that they may have a fair shot at the informational and social interactions that the Internet in particular, and information technology in general, offer.

Therefore, to assess the Horn of Africa immigrants' perceived language competency in both host and ethnic languages, I have included a 5-item Likert-type scale. For this study, responses on the study's five-item scale ranged from (1) *poor to* (4) *excellent*. Three of the items that measure perceived English language competency were adapted with some modifications from Ying and Liese (1990), and I added two items to assess perceived ethnic language competency: (a) the ability to speak, read, and write English and (b) the ability to read and write in one's own ethnic language. Ying and Liese (1990) invented the scale to measure the ability of international students "to speak, read, write, and understand English. Responses on these four items range from (1) *very poor to* (5) *very good*" (p.834). The authors reported an alpha of .71 for their perceived English competency scale. Further, Ying and Liese (1990) established

evidence of construct validity for the above measure. The means and standard deviations of the scale are presented on Chapter Four Descriptive Analysis sections. The perceived language competency scale is reported in (Appendix C).

Measuring Acculturation

Acculturation is the dependent variable. The Development of a New Scale for Measuring Acculturation: The East Asian Acculturation Measure (EAAM) advanced by Barry (2001) was selected to measure four dimensions of acculturation. The 29-item, 7-point scale measures four dimensions of acculturation: (a) assimilation (8 items; e.g., I get along better with Americans than my ethnic group), (b) separation (7 items; e.g., Eritreans should not date non-Eritreans), (c) integration (5 items; e.g., I feel very comfortable around both Americans and Somalis), and (d) marginalization (9 items; e.g., Generally, I find it difficult to socialize with anybody, Ethiopian or American). In this scale “attitudinal and behavioral facets of social interaction and communication styles (both competency and ease/comfort in communicating) in various settings were assessed” (Barry, 2001, p.194).

Barry (2001) reported reliability of coefficient’s alpha, of .77, .76, .74, and .85 for assimilation, separation, integration, and marginalization scales, respectively. Again, the mean and standard divisions resulting from this study are reported on Chapter Four in the Descriptive Results section. The EAAM scale is reported in (Appendix B).

Pilot Study

A pilot study was conducted at one of the many adult education centers that serve the educational needs of the target populations in the Twin Cities area. The

primary purposes were to: (a) evaluate the study design, (b) avoid wasting unnecessary time and resources; (c) provide an opportunity to test the questioner/instruments utilized in this study. In addition, it allowed me to “determine whether the procedure had merit and correct obvious flaws” (Gall et al., 2007, p. 56).

Twenty-nine research participants (11 male and 18 female) took part in the pilot study. The pilot study participants’ backgrounds consisted of seven Eritreans, ten Ethiopians, and twelve Somalis. The age of the participants ranged from 20 to 50 years. Length of residence in the U.S. ranged from as little as six months to 11 years.

The pilot study highlighted some procedural barriers that needed to be corrected prior to the full study. Since most of the research participants were English Language Learners (ELL), with some having no education in their native language, several of them displayed difficulty in understanding the questions involved in the measures, including the scales in their native languages. Additionally, only a fraction of those who participated in the pilot study had some experience with filling out surveys. This led to making modification to the scales, and to the data collection procedures themselves.

The above challenges led to employing individuals who spoke the languages of the research participants to assist with the data collection process. These individuals were involved with distributing surveys, answering questions related to the items on the scale, and checking and collecting completed surveys. Prior to their involvement with the data collection process, these assistants were given adequate training so that they did not influence the participants’ responses.

The descriptive summary statistics of the pilot study provided me with valuable information that led to dropping four items from the final scale. Specifically, the questions on communication using Internet telephone and Chatroom/messenger, with both Americans and their own ethnic group, were omitted from the final study due to very low frequency of use. They were judged to add to the length of the questionnaire without providing much information. This reduced the total number of items from 62 to 58.

Data Collection

The paper-and-pencil survey was distributed through Adult Basic Education and community education centers. I was present at all times during the data collection process. As part of the questionnaire, participants received a consent form in their own languages explaining the study and data collection methods, as well as the process of data analysis. Participants were informed about the confidentiality of the research study and their rights.

In each of the participating sites, a room was designated for the study. The English version of the scales, which were used to collect data from research participants, was then projected on an overhead projector. Then, research participants were informed of the basic features of the scale.

At the end of each data collection session, participants were given a perforated ticket to be entered in a drawing for gift cards from Target and Caribou Coffee. In the four centers that participated in the study, \$210 was won by the participants.

Additionally, after completion of surveys, \$55 was used to provide the staff with refreshments.

Selection of Participants

Network sampling and cluster sampling were used. The first phase of the data collection process involved using my knowledge of the potential research subjects' communities to identify sites where the research could take place. The second phase ensured that an adequate number of individuals from the three ethnic groups under inquiry resonated with the cluster sampling.

For the most part, researchers use network sampling to access populations that are otherwise considered hard to reach. Such a method allows researchers to penetrate and recruit populations fairly easily through word of mouth. In general, network sampling assures an unbiased estimation (Sirken, 1977). On the other hand, a cluster sampling method is a sampling technique used when the population is divided by cluster or group or when natural but relatively homogeneous groupings exist. With this sampling method, a group of the population or a cluster represents the sampling unit instead of a single element of the population (Barnett, 1991). With this particular study, the three ethnic groups presented natural clusters and cluster sampling assured representation of all the groups in the sample.

Description of the Sample

Data were collected from the Horn of Africa immigrants residing in the Twin Cities metro area in Minnesota from March 28, 2012 to May 15, 2012 (see Table 3). Of the 316 participants who participated in the study, 292 produced questionnaires that

provided usable data for the final analysis. Twenty-four surveys were excluded from the final analysis, bringing the number of returned surveys from 316 to 292. Out of 24 excluded surveys, 13 were partially completed. Participants gave a variety of reasons for not wanting to complete the survey, most related to work or child care issues (e.g., it took longer time to complete it than they had anticipated). Eleven surveys that were excluded from the final analysis were disqualified because they did not meet critical criteria (e.g., arrived to the U.S. prior the year 2000 or lived in the country less than six months). The total questions involved in the three scales and a series of demographic questions is 58. The survey took approximately 30 minutes to complete.

Since I employed individuals who assisted with the data collection process, the issue of missing data was not a concern with this particular study. As research participants handed in completed surveys, we checked for any incomplete items, which eliminated any concern about missing data. Further, at the beginning of every session, I informed participants that: (a) any incomplete and double marked surveys would be excluded from the study, (b) that the survey was not a test, there are no right or wrong answers, and (c) to answer the survey items candidly. I wanted responses that reflected how they feel, think, and value survey items, not what they think the right answer might be to the general public. The numbers of responses are detailed in Table 3.

Table 3

Number of Responses for All Participating Educational Sites

Participating Sites	Participants	Total Surveys included in analysis	% Included in analysis
Site A	14	13	93
Site B	49	45	92
Site C	165	153	93
Site D	88	81	92
Total	316	292	92

Demographic Variables

Information about research participants was collected using a brief demographic background questionnaire which asked participants: (a) country of origin, (b) age, (c) gender, (d) education both in the U.S. and prior to immigration to the U.S., (e) length of residence in the United States, (f) ethnic background, and (g) migration status.

The ethnic make-up of the sample was 57 Eritrean (19.5%), 124 Ethiopian (42.5%), and 111 Somali (38%). The sample consisted of 137 males (47%) and 155 females (53%). The age of participants ranged from 18-71 years ($M = 32$, $SD = 9.42$). Similarly, years lived in the United States ranged from six months to 12 years ($M = 4.75$, $SD = 3.41$). Participants' immigration status consisted of 178 (61%) immigrants, 96 (32.9%) refugees, and 18 (6.2%) asylees. Research participants' Internet usage prior arrival to the United States yielded of ($M = 1.86$, $SD = 2.78$), while their Internet usage in the United States registered ($M = 3.09$, $SD = 2.83$). Similarly participants' highest level of education completed before arrival to the United States consisted of ($M = 2.67$, $SD =$

1.06), whereas the highest level of education they are enrolled in, or completed in the United States, consisted of ($M = 2.09$, $SD = 1.46$) (see Table 4).

Table 4

Demographic Information (N=292)

Variables	<i>N</i>	%	
<i>Gender</i>	Male	137	47
	Female	155	53
<i>Age</i>	18-23	48	16
	24-29	85	29
	30-35	78	27
	36-41	39	13
	42-47	17	6
	48-53	8	3
	54-59	7	2
	60-65	3	1
	66-71	3	1
<i>Ethnic Background</i>	Eritrean	57	20
	Ethiopian	124	42
	Somali	111	38
<i>Immigration Statuses</i>	Immigrant	178	61
	Refugee	96	33
	Asylee	18	6
<i>Education completed prior to U.S.</i>	No formal education	39	13
	Less than high school	87	30
	High school diploma	115	39
	College certificate/diploma	35	12
	Bachelor's degree	14	5
	Master's degree	1	0
	Doctoral degree	1	0
<i>Education completed or enrolled in U.S.</i>	ESL	136	47
	High school diploma	82	28
	High school diploma or GED	33	11
	College certificate	14	5
	Bachelor degree	4	1
	None	23	8

Reliability of Scales

A measurement is considered reliable based on the likelihood of error. The most utilized tool to measure reliability of measurements is coefficient's alpha. Kline (2000) states that the acceptable value of alpha in reliability analysis is 0.7 in the case of ability tests. Field (2005) stressed that for a measurement to be considered reliable it "should consistently reflect what it is measuring" (p. 666). The alpha coefficients for the scales applied in this study are within the acceptable range.

In this study, the coefficient's alpha reliability for the Internet usage scales yielded a range from .77 to .83. The 3-item perceived English language competency yielded an alpha of .79, while the 2-item own ethnic perceived language competency scale reported an alpha of .94. These alphas suggest that the items have relatively high internal consistency. Further, the correlations of items with each other are within the acceptable range. The above Internet and perceived language competency sub-scales resulting from the Factor Analysis are detailed in the next section. In this study, the EAAM acculturation scale yielded smaller coefficient's alpha values for the dimensions of separation and integration. Barry (2001) reported coefficient's alpha value of .70 or higher for all four scales. The coefficient's alpha reliability of all scales used for this research study is provided in Table 5.

Table 5

Coefficient's Alpha Values for all Scales

Variable	Number of Items	Coefficient Alpha (α)
Internet Usage Scales ¹		
U.S. Networking	4	.83
Ethnic Networking	3	.77
Ethnic Entertainment	3	.83
U.S. Entertainment	3	.77
Perceived English language competency ²	3	.79
Perceived native language competency ³	2	.94
The East Asian Acculturation Measure (EAAM) ⁴		
Assimilation	8	.77
Separation	7	.58
Integration	5	.67
Marginalization	9	.72

Note: ¹ = influenced by the study of Papacharissi and Rubin, (2000); ² = significantly draws on the study of Ying & Liese (1990); ³ = researcher; ⁴= Barry (2001).

In the following section, the construct validity analysis of the scales used in this study is presented.

Construct Validity Analysis of Scales

A scale is considered as having construct validity if it accurately measures a theoretical hypothesis or trait. The two most utilized methods in establishing construct validity of measures are convergent/divergent validation and factor analysis. In this study, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used.

According to Reymont and Joreskog (1996), “factor analysis is a generic term that we use to describe a number of methods designed to analyze interrelationships

within a set of variables or objects” (p. 71). It is a procedure that explains a set of observed variables in terms of a small number of hypothetical variables, called factors (Yang, 2005). Factor analysis allows for a large quantity of variables to be reduced according to their interrelationships, variables that are highly correlated with one another. Factors are constructed to reduce the overall complexity of the data by taking advantage of inherent interdependencies (Reyment & Joreskog, 1996). This method is used during the construction of a new scale or to validate an existing instrument to measure its underlying variable. As a technique to develop or validate an existing instrument, factor analysis “is a powerful statistical technique” (Yang, 2005, p. 182).

The two commonly utilized factor analysis methods are exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Stapleton (1997) is of the view that EFA “is used to explore data to determine the number or the nature of factors that account for the conversation between variables when the researcher does not have prior sufficient evidence to form a hypothesis about the number of factors underlying the data” (p. 4). CFA, on the other hand, “is an application of structural equation modeling in which items are associated *a priori* with factors, and the adequacy of a model is tested through fit indices that measure the degree to which the factor model reproduces the empirical covariance matrix” (Marti, 2004, p.6). In short, EFA is used when researchers do not have a predetermined number of underlying aspects of the configuration to discover the common factors that drive interrelationship between the observable variables; CFA is considered an appropriate data analysis tool when the measurement models under consideration reflect a well-developed underlying theory for hypothesized

loading patterns (Yang, 2005). For the purpose of this study, both EFA and CFA were considered.

Exploratory Factor Analysis (EFA)

According to Yang (2005), EFA “is normally used to explore the underlying factors for a set of variables that indicate a phenomenon” (p. 184). This approach is considered to be essential “to researchers in assessing the nature of relationships among variables and in establishing the construct validity of test scores” (Stapleton, 1997, p. 4). EFA “attempts to reduce a set of, say ten variables, into two or three underlying “factors.” (Kim & Mueller, 1978, p. 5). In this study, EFA was used to establish the factor structure of the 14-item Internet usage scale and to examine their internal reliability. Similarly, EFA was also employed on the 5-item perceived language competency scale.

Consequently, exploratory factor analysis using SPSS version 20 was conducted to examine the inter-correlations between the items of the above scales. In short, the aim of this method with this particular study was to examine the underlying dimensions or inter-correlations between the variables on the scales. After conducting EFA, I also conducted CFA on the above scales. The approaches utilized and the results of both EFA and CFA of the above scales along with the CFA results of the EAAM acculturation scale are detailed below.

EFA of Internet Usage Scale. When conducting exploratory factor analysis, certain conditions need to be met. The foremost conditions associated with EFA are sample size, extraction method, and rotation method. Although researchers hold diverse

views about the adequacy of sample size required when conducting factor analysis, the commonly held practical guideline is “person-to-item ration of 10:1” (Cabrera-Nguyen, 2010, p. 101). The 292 sample size employed in this study should be sufficient to satisfy the above conditions. Additionally, Yang (2005) stresses that when conducting EFA, researchers need to consider adequate measures of association between variables (i.e., correlation coefficient or association between variables), and the need for rigorously analyzing the matrix.

Using the 292 sample, EFA analysis was conducted. In the first stage, correlation matrix, coefficients, and KMO Bartlett’s test of Sphericity were selected to test assumptions associated with factor analysis. Second, the extraction method was left at default ‘principal components’ and Promax rotation method was chosen. This method of rotation is commonly used when researchers are unsure if the factors are orthogonal (i.e., uncorrelated). Further, the factor extraction method was left to its default Eigenvalue greater than 1. Eigenvalues are the variances of the factors, which mean that each variable maintains a variance of 1, and the total variance should be equal to the number of variables subjected to the factor analysis. The first factor is expected to account for the most of the variance in other terms having the highest Eigenvalue, and each successive factor accounts for less variance.

This initial analysis of the correlation matrix and screen plot yielded four factors. The Kaiser-Meyer-Olkin, which measures the sample adequacy, yielded 0.9. This is much higher than the threshold of 0.6. Therefore, for the purpose of this analysis the sample was adequate. Additionally, the tolerable Bartlett's Test of Sphericity value is

less than .05. In this study, Bartlett's Test of Sphericity yielded $p < .000$, which was significant. Lack of significance would mean no significant factors exist, indicating that the variables are virtually independent.

With this information, further analysis was conducted. According to Tabachnick and Fidell (2007), this step of factor analysis should be repeated until the desired outcome is attained. Since the existence of four factors was confirmed, this time the rotation method chosen was promax, which is oblique. Tabachnick and Fiddell (2007) suggested that “the best way to decide between orthogonal and oblique rotation is to request oblique rotation...e.g., direct oblmin or promax from SPSS with the desired number of factors...if correlations exceed .32 then there is 10% or more overlap in variance among factors, enough variance to warrant oblique rotation” (p. 646).

I ran four-factor EFA followed by promax rotation s. Correlations less than .32 were suppressed. Tabachnick and Fiddell (2007) suggested that suppressing low loading correlations can be helpful when identifying items with less loading on all dimensions. Such items can be unreliable and candidates for deletion. Further, that method can be informative if an item is loading on more than one dimension, in which case its reliability should be questioned. In the first stage of the analysis, item four asked: “*How often do you interact on LinkedIn and other job related websites with people of your own ethnic group?*” and showed non-significant factor loading. Therefore, as I mentioned above, it was eliminated from further analysis, bringing the total items on the Internet usage scale to 13.

The final result of the EFA for the 13- item Internet usage scale is detailed below. The Kaiser-Meyer-Olkin, which measures the sample adequacy, yielded .88. Field (2005) is of the view that values between .5 and .7 are mediocre, values between .7 and .8 are good and values between .8 and .9 to be best. Therefore, a value of .88 was considered very good and factor analysis was appropriate for this data. According to Field (2005), Bartlett's test of sphericity which measures the null hypothesis needs to be a significant value of less than 0.05. For this data, Bartlett's test is significant ($p < 0.001$), which makes factor analysis appropriate. Factors were orthogonally rotated using Varimax with Kaiser Normalization rotation. Further, the four factors (Internet Usage Scales) reported Coefficient's alpha value of .83, .77, .83, and .77 for U.S. networking, ethnic networking, ethnic entertainment, and U.S. entertainment respectively. The result of the correlation matrix is presented below in Table 6.

Table 6

EFA-Factor Loadings with Promax Rotation of Internet Usage Scales

Items	Factor			
	U.S. Networking	Ethnic Networking	Ethnic Entertainment	U.S. Entertainment
“HOW OFTEN DO YOU.....”				
Correspond by Email with Americans?	.72		.10	
Use Facebook/ Twitter/ Google-plus or other social networking sites with “Americans”?	.80			
Interact on LinkedIn and other job related websites with “Americans”?	.78			-.10
Communicate using Skype with “Americans”?	.64	.17	-.15	
Correspond by Email with people of your “own ethnic group”?		.80		
Use Facebook/ Twitter/ Google-plus or other social networking sites with “your own ethnic group”?		.68		
Communicate using Skype with “people of your own ethnic group”?		.64		
Download or listen to your ethnic music online?	-.21	.21	.52	.29
Visit or surf your own ethnic news websites?	-.11	.17	.79	-.11
View videos, or watch online your own ethnic television?	.15	-.14	.92	
Download or listen to American music?			-.11	.94
Visit or surf American news websites?	.17		.12	.51
View videos, or watch online American television?	.25		.12	.52

Note. Factor loadings > .40 are in boldface.

EFA of Perceived Language Competency Scale. Exploratory factor analysis was also conducted on the 5-item perceived language competency scale. The same method and steps taken for the Internet usage scale was also applied for this scale. The EFA analysis yielded two factors. Likewise, the Kaiser-Meyer-Olkin measure of sampling adequacy for this scale reported 0.6. The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.6 or above is needed for factor analysis. Bartlett's Test of Sphericity reported $p < .000$ which was significant. Also, reliability analysis was conducted on this scale. The 3-item perceived English language competency factor reported Coefficient's alpha value of .79, while the 2-item perceived ethnic language competency factor yielded Coefficient's alpha value of .94. The Factors and their loadings are reported in Table 7 below.

Table 7

EFA - Factor Loadings with Promax Rotation of Perceived Language Competency scales

Items	Factor	
	English Language	Ethnic Language
What is your ability to read English?	.86	.12
What is your ability to write English?	.87	-.01
What is your ability to understand spoken English?	.80	-.12
What is your ability to read in your native language?	-.02	.98
What is your ability to write in your native language?	.00	.97

Note. Factor loadings $> .40$ are in boldface.

Kim and Mueller (1978) are of the view that “even the issue of whether factors are correlated or not may not make much difference in the exploratory states of analysis” (p. 50). Therefore, I also undertook CFA analysis on the above scales in addition to the modified Barry (2001) EAAM 29-item acculturation scale. The CFA analysis of the EAAM

acculturation, Internet usage, and the perceived language competency scales are detailed below respectively.

Confirmatory Factor Analysis (CFA) of the Scales

Based on the data from the 292 surveys, confirmatory factor analysis was conducted using the Statistical Package for Social Sciences SPSS Amos version 19. In total, three scales were the subjects for CFA analysis. First, CFA was conducted on the East Asian Acculturation Measure (EAAM) four-factor with 29 items as indicated by Barry (e.g. 8, assimilation, 7 separation, 5, integration, and 9 marginalization). Second, the 13-item Internet usage scale deployed to access degree and frequency of Internet usage by the Horn of Africa immigrants was the subject for CFA analysis. Third, CFA was conducted on the 5-item perceived language competency scale, which measures research participants perceived language competency in both the host language, in this case English, and in their own ethnic language. The CFA analysis of the Internet usage and perceived language competency was based on the factors yielded from the EFA analysis. According to Kim and Mueller (1978), a “requirement of any confirmatory factor analysis is that one hypothesize beforehand the number of common factors” (p. 55). The above scholars add that “the hypothesis, if it is to be different from a hunch or guess, must be based on an understanding of the nature of the variables under consideration, as well as on expectations concerning which factor is likely to load on which variables” (Kim & Mueller, p. 50, 1978).

The conditions that constitute EFA analysis also pertain when conducting CFA analysis. Perhaps the foremost condition associated with CFA analysis has to do with sample size. According to Hair, Black, Babin, Anderson, and Tatham (2006) the size of the

sample utilized in a research study offers the foundation for the estimation of sample error and can influence the ability of the model under consideration to be correctly estimated. Even so, there is lack of consensus in terms of sample size or the ratio of subjects per item required when conducting analysis or testing a model. Scholars (i.e., Bentler & Chou 1987; Flynn and Percy, 2001) suggest that the generally accepted rule of thumb be 10 subjects per item. Others, i.e., Kline (2002) stressed that a sample size of 100 participants would be adequate for CFA analysis. Hence, the 292 sample size included in this study is sufficient.

The purpose of CFA is to verify the relationship between observed variables and their underlying latent constructs. This requires examining the factor model to see if it fits the data. According to McDonald and Ho (2002), absolute fit indices decide how well a model fits the sample data. Fit refers to the ability of a model to reproduce the data (i.e., variance-covariance matrix). Likewise, a good-fitting model is considered to be consistent with the data, and one that does not require re-specification. Mulaik (1987) stressed that “a goodness-of-fit test evaluates the model in terms of the fixed parameters used to specify the model, and acceptance or rejection of the model in terms of the over identifying conditions in the model” (p. 275)

Therefore, in addition to Chi-Square (χ^2), in determining model fit, researchers use several goodness-of-fit indicators to assess a model. Some of the common fit indices “are the Normed Fit Index (NFI), Non-Normed Fit Index (NNFI, also known as TLI), Incremental Fit Index (IFI), Comparative Fit Index (CFI), and root mean square error of approximation (RMSEA)” (Schreiber, Nora, Stage, Barlow & King, 2006, p. 327). Researchers also report goodness-of-fit index (GFI) (Yang, 2005). It is commonly

understood that if the majority of the above indices indicates a good fit, then the overall model would be considered to have a good fit (Schreiber, Nora, Stage, Barlow & King, 2006).

Chi-Square, which is greatly influenced by the sample size, measures the degree to which the covariances inferred by the model match the covariances present in the observed data. It is safe to say that the Chi-Square is significant when the sample size is large, making it difficult to get a *p-value* greater than .05. Bentler and Bonnet (1980) reported that since the Chi-Square statistic is sensitive to sample size, it most certainly rejects the model when large sample size is used in the analysis.

Chi-Square is weighted in relation to degrees of freedom (*df*) by calculating χ^2/df . A Ratio of χ^2 to $df \leq 2$ or 3 is considered acceptable (Schreiber, Nora, Stage, Barlow & King, 2006). Both the GFI and AGFI, which are less sensitive to the sample size than the Chi-Square (Stapleton, 1997), echo the proportion of the combined amount of data variance and covariance that can be elucidated by the measurement model under scrutiny (Yang, 2005). GFI and AGFI $\geq .95$ is not normally endorsed. The root mean square error of approximation (RMSEA), establishes a hypothesis of close fit between the model and population. RMSEA $< .06$ to $.08$ is considered good fit. CFI, NNFI/TLI, and IFI, which all measure the degree of fit amid the theorized and null measurement model are considered good fit at $\geq .95$ (Schreiber, Nora, Stage, Barlow & King, 2006).

CFA Results for EAAM Acculturation Scale. According to Kim and Mueller (1978), a reporting CFA result “is not very different from exploratory factor analysis; only brief comments are necessary” (p. 56). In this study, the output from the CFA for the EAAM acculturation scale indicated an overall moderate fit of the model with the latent

constructs ($\chi^2 = 652.45$ to $df = 371$, $\chi^2/df = 1.76$), GFI = 0.869, RMSEA = 0.05, RMR = .038, AGFI = 0.846, NFI = 0.625, IFI = 0.794, and CFI = 0.789).

Additionally, the output of factor analysis, which includes a matrix of factor loadings, shows the correlations between the original variables and their factors. It specifies the pattern of the relationships among the items and the latent variable. Groups of variables that are highly correlated tend to load on the same factor. However, there are competing views of the specifications necessary to measure the effects of absolute values. The generally held rule of thumb guiding practical significance is that absolute values of ± 0.30 have minimal effect, values ± 0.40 are more important, and ± 0.50 are practically significant (Hair, Anderson, Tatham, & Black, 2006). Barry (2001) reported correlations ranging from 0.41 to 0.62 for assimilation, 0.34 to 0.63 for separation, 0.42 to 0.59 for integration, and 0.49 to 0.63 for marginalization respectively. In this study, the factor loading for the standardized estimates among the items and their latent variable were moderate to strong. The correlation ranged from 0.48 to 0.63 for assimilation, 0.30 to 0.53 for separation, 0.42 to 0.64 for integration, and 0.35 to .66 for marginalization respectively. The factor loadings for the items are presented in Table 8. Figure 2 also presented the standardized estimates of the power loading of the items and correlation. All power loadings were significant. It should be noted that the size of the degrees of freedom for the most part depends on the number of parameters to be estimated.

Table 8

Summary of CFA Fit Indices for the EAAM Acculturation Scale

χ^2	df	χ^2/df	NFI	GFI	RMR	AGFI	CFI	TLI	RMSEA	IFI
652.45	371	1.76	.625	.869	.038	.846	.789	.770	.054	.794

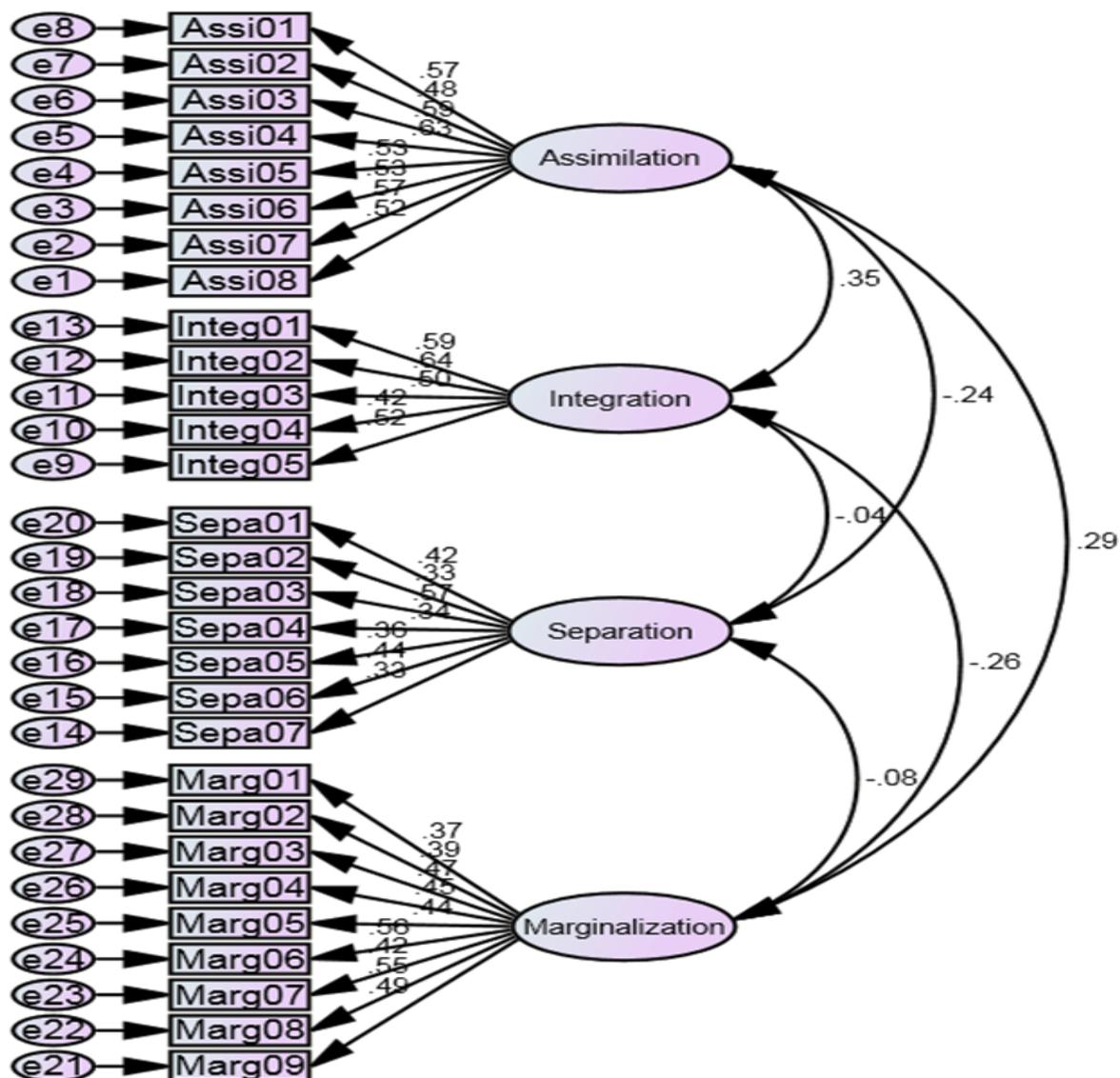


Figure 2. CFA loading and correlations of EAAM 29-item acculturation scale. Assi = assimilation, Integ = integration, Sepa = separation, and Marg = marginalization.

CFA Results for Internet Usage Scale. Based on the factors extracted from the EFA analysis, CFA analysis was conducted on the Internet scale. The CFA analysis yielded ($\chi^2 = 165.42$ to $df = 59$, $\chi^2/df = 2.80$), GFI = 0.918, RMSEA = 0.079, RMR = .054, AGFI = 0.918, NFI = 0.911, IFI = 0.941, and CFI = 0.940). The overall fit of this model can be categorized as moderate fit. The complete fit indices for the sample data is presented in Table 9, and the factors, their loading and correlations, are reported in Figure 3.

Table 9

Summary of CFA Fit Indices for the Internet Usage Scale

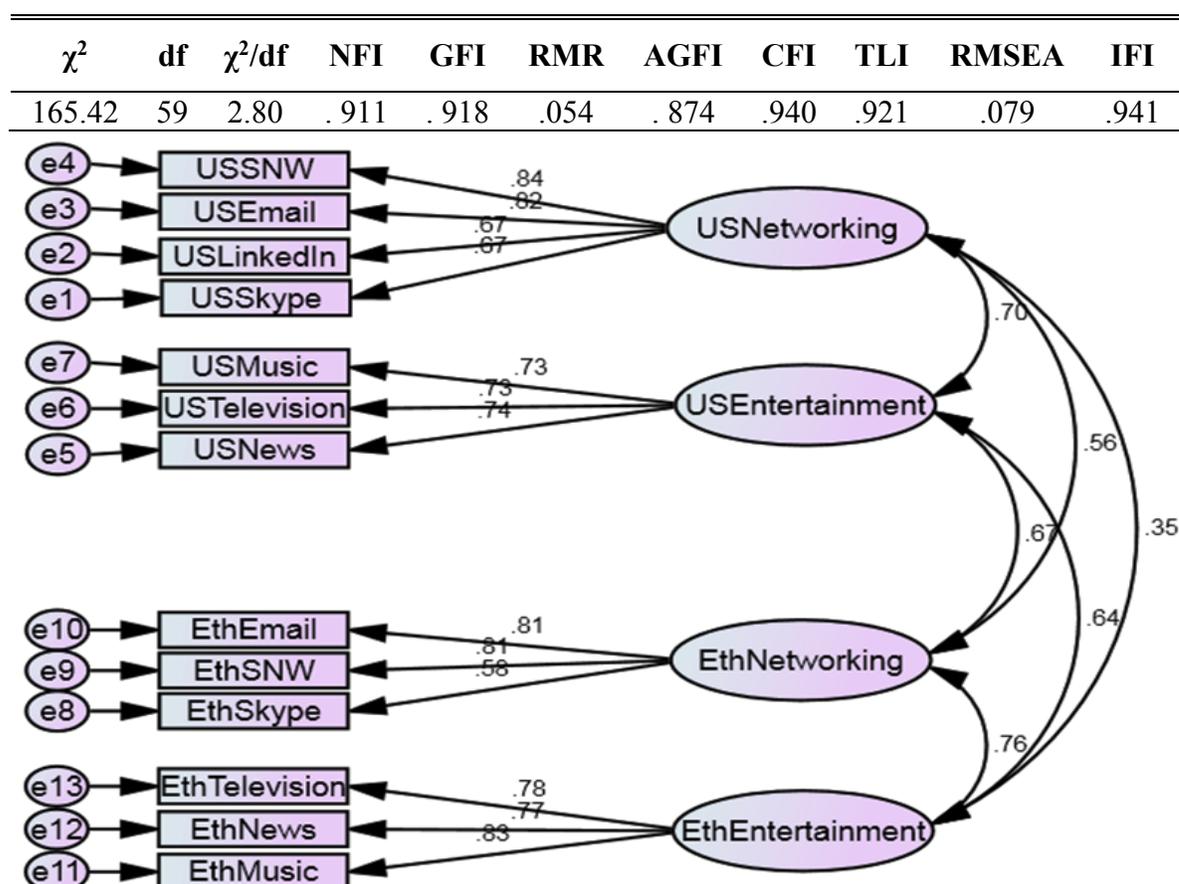


Figure 3. CFA loading and correlations of the four Internet usage factors. USSNW = U.S. social networking, i.e., Facebook, Twitter; Eth = ethnic; EthSNW = ethnic social networking, i.e., use of Facebook, Twitter.

CFA Results for Perceived Language Competency. Based on the factors extracted from the EFA analysis, CFA analysis was also conducted on the perceived language competency scale. The CFA analysis yielded ($\chi^2 = 9.55$ to $df = 4$, $\chi^2/df = 2.38$; $p = .05$), $GFI = 0.988$, $RMSEA = 0.069$, $RMR = .027$, $AGFI = 0.951$, $NFI = 0.988$, $IFI = 0.993$, and $CFI = 0.993$). Overall, in this analysis most of the indices meet or surpass the suggested threshold (e.g., Browne & Cudeck, 1993; Hu & Bentler, 1999; Schreiber, Nora, Stage, Barlow & King, 2006). Therefore, the model is a good fit. The complete fit indices are presented in Table 10, and the factors, their loading and their correlations, are reported in Figure 4.

Table 10

Summary of CFA Fit Indices for the Perceived Language Competency Scale

χ^2	df	χ^2/df	NFI	GFI	RMR	AGFI	CFI	TLI	RMSEA	IFI
9.55	4	2.38	.988	.987	.027	.951	.993	.982	.069	.993

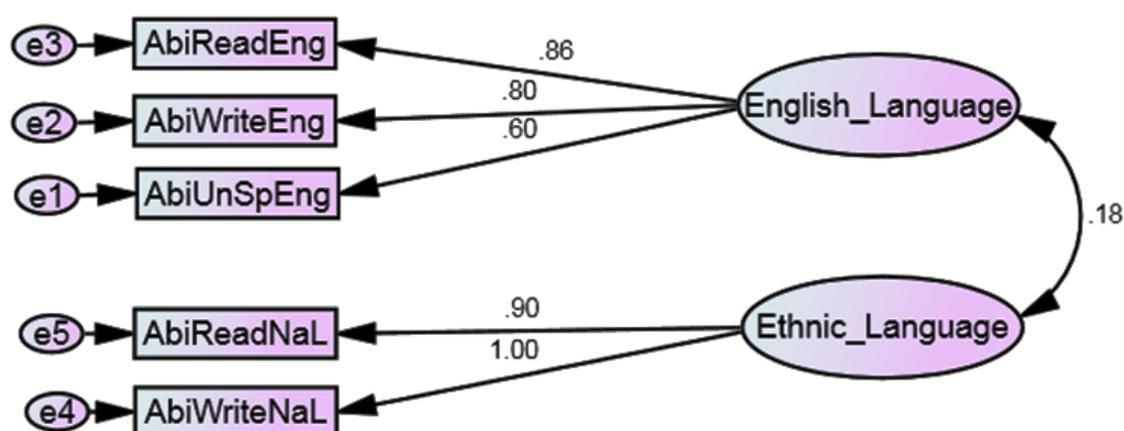


Figure 4. CFA loading and correlations of the 5-item perceived language competency scale. Abi = ability, Eng = English, NaL= national language.

In summary, though some researchers use the dimensions or factors produced by factor analysis as an input for further analysis, in this case multiple regression, I have decided to use the mean of the factors. For example, in the case of the perceived language competency scale, instead of the sum of the items, I have used the mean of the sum i.e., the mean of the sum of 3-items perceived English language competency factor. The same approach was applied to all scales used in this study. Such a method is widely applied within survey-based research, and this is especially true when there is no missing data.

Data Analysis

Diverse methods were employed to analyze the data in answering the research questions. The Statistical Package for Social Sciences (SPSS) computer software was used for coding and extracting results. Descriptive statistics such as means, standard deviations, and percentiles were used to describe the basic features of the data in this study. Further, coefficient alpha, which is a coefficient of reliability (Coefficient, 1951), is used as a measure of the internal consistency or reliability of the scales used in this study. In most social science research situations, a reliability coefficient of 0.70 or higher is considered acceptable to ensure greater accuracy in decision making (Nunally, 1978). Additionally, the Pearson product-moment correlation coefficient (Pearson's r), which measures correlation between variables, was used to measure the presence and strength of linear dependence between variables.

Multiple regression analysis is the primary method of data analysis for my research study. It seeks to explain variation in an outcome, or dependent variable (Gall et al., 2007). With regression, quantitative or categorical independent variables analyze a number of

variables when the focus is on the relationship between a dependent variable and one or more independent variables. What makes this particular method of analysis appealing to researchers is the fact that several of its “assumptions . . . are robust to violation” (Osborne & Waters, 2002, p. 1)

Multiple regression is also used to determine the direction of the relationships, the magnitude of the relationships, the nature of the relationships between the dependent variable (in this case, acculturation) and independent variable(s) of Internet usage, perceived language competency, and demographic questions. Regression analysis was used to frame an understanding as to how the distinctive value of the dependent variable changes when any of the independent variable(s) vary, as other independent variables remained fixed.

IRB Approval

Prior to administering the survey, supporting documentation was obtained from the selected research sites, and I obtained approval of all necessary procedures from the University of Minnesota’s Institutional Review Board (IRB). Dillman (2000) is of the view that a well-planned and implemented survey influences the response rate. Moreover, Roth and BeVier (1998) conclude that “advance notice, identification numbers, follow-up reminders, and salience are significantly associated with response rates” (p.97). The approval from the IRB is provided in (Appendix F).

Summary

In this chapter, I have reiterated the purpose of the study and the research questions. The foundation of examining the relationships between Internet usage and acculturation of the Horn of Africa immigrants in Minnesota is also presented. I have also provided

information detailing the research design and the method used in investigating the relationship between Internet usage and acculturation. The reliability of the scales used to assess the different constructs and their basic features were described. Additionally, data collection, sample size, and descriptive summary of the instruments used in this study have also been provided. Finally, the procedure used to analyze data, approval from the IRB, and a chapter summary is detailed. More important, the uniqueness of the research study has been highlighted. In the following chapter the results of the analysis are presented. Discussion follows in Chapter Five.

CHAPTER FOUR

RESULTS

The purpose of this study is to investigate the relationships between Internet usage and acculturation of the Horn of Africa immigrants in Minnesota. Data were collected from immigrants who come from the Horn of Africa countries and are currently residing in the Twin Cities metropolitan area of Minnesota. The self-administered paper-based survey resulted in 292 usable samples out of 316 total samples.

In this section, the questions detailed in Chapter Three along with the proposed Internet usage and acculturation models are considered. The chapter is organized into four major segments. First, a summary of the descriptive statistics is given. Following this, analyses from the Pearson correlation matrix of the independent and dependent as well as demographic variables are presented. Third, details of the multiple regression analysis answering the first research question on the relationship between type of Internet usage and acculturation is investigated. The regression analysis consists of comprehensive and parsimonious models. Pearson correlations are also used to examine the second research question, which is the relationship between the frequency of Internet usage and acculturation. From the above two research questions, the overall research question on the relationship between Internet usage and acculturation is summarized. Finally, the proposed Internet usage and acculturation models are presented.

Descriptive Analysis

This section of the chapter offers descriptive findings of all predictor variables. The data were analyzed using descriptive and Pearson correlational statistics. In the first section,

immigrants' Internet usage based on the four categories is presented. The second section encompasses research participants' acculturation experiences based on the four EAAM acculturation scales. Further, accounts of research participants' perceived ethnic and perceived English language competency are briefly detailed.

Descriptive Findings for the Four Internet Usage Factors

The responses were given on a 4-point Likert type scale ranging from *not at all* (0) to *daily* (3). Mean scores were calculated to compute the overall score for each of the four Internet usage factors. Higher scores for each Internet usage factor indicate higher usage for the particular factor.

According to the findings of the Internet Usage Scale, the overall immigrants' Internet usage is as follows: ethnic entertainment ranked highest, followed by ethnic networking; third highest was U.S. entertainment, and finally U.S. networking. The descriptive analyses suggested that, while research participants primarily used the Internet for ethnic entertainment, the mean-value for U.S. networking was the least. The Internet usage factors are in bold see Table 11.

Close examination of the individual items that make up the four Internet usage factors was also informative. Accordingly, in the findings detailed in Table 11, the highest mean-values came from items that reflect ethnic entertainment, followed by items that reflect ethnic networking. The third highest mean-values were U.S. entertainment, and the items with the least mean-values came from items associated with U.S. networking. For complete details, refer to Table 11 below.

Table 11

Descriptive Statistics for the Four Internet Usage Factors and 13-items (N=292)

Factors & their Items	<i>M</i>	<i>SD</i>	<i>CV=Sd/ \bar{x}</i>
HOW OFTEN DO YOU....?			
<i>Factor 1: U.S. Networking</i>	0.60	0.77	1.28
1 Correspond by Email?	0.74	1.00	1.35
2 Use Facebook/ Twitter/ Google-plus or other social networking sites?	0.69	1.09	1.58
3 Interact on LinkedIn and other job related websites?	0.54	0.91	1.69
4 Communicate using Skype?	0.30	0.72	2.40
<i>Factor 2: U.S. Entertainment</i>	1.10	0.99	0.90
5 Download or listen to American music?	0.89	1.15	1.29
6 Visit or surf American news websites?	1.20	1.18	0.98
7 View videos, or watch online American television?	1.14	1.22	1.07
<i>Factor 3: Ethnic Networking</i>	1.25	0.94	0.75
8 Correspond by Email?	1.29	1.08	0.84
9 Use Facebook/ Twitter/ Google-plus or other social networking sites?	1.55	1.21	0.78
10 Communicate using Skype with “people of your own ethnic group”?	0.86	1.07	1.24
<i>Factor 4: Ethnic Entertainment</i>	1.70	1.04	0.61
11 Visit or surf your own ethnic news websites?	1.72	1.17	0.68
12 Viewing videos, or watching online your own ethnic Television?	1.56	1.17	0.75
13 Download or listen to your own ethnic music online	1.54	1.23	0.80

Note. Internet usage items were measured on a four point Likert-type scale ranging from “not at all” (0) to “daily” (3); CV = coefficient of variation.

Participants’ Acculturation on the Four Acculturation Dimensions

Acculturation was measured on 4-point Likert type scale ranging from *strongly disagree* (1) to *strongly agree* (4). The analysis of research participants’ acculturation preference was based on the four acculturation dimensions. As was the case with the Internet usage scale, mean scores were calculated to compute the overall score for each of the four acculturation dimensions. The means scores were 2.78, 2.74, 2.00, and 1.86 for separation, integration, assimilation, and marginalization, respectively. Higher scores for each acculturation dimension indicate higher agreement for the particular measures or

dimensions. Since the four acculturation dimensions consisted of different numbers of items, I took the average of the total items in each dimension to make the scores comparable.

According to the findings of the four EAAM acculturation scales, the overall immigrants' acculturation experiences ranged from practically even between the dimensions of separation and integration, followed by assimilation; the least mean-value was marginalization (see Table 12) below.

Table 12

Descriptive Statistics for the Four Acculturation Dimensions (N=292)

Items	<i>M</i>	<i>SD</i>	<i>CV= Sd/ \bar{x}</i>
1. Separation (7) items	2.78	.43	.15
2. Integration (5) items	2.74	.46	.17
3. Assimilation (8) items	2.00	.44	.22
4. Marginalization (9) items	1.86	.41	.22

Note. Coefficient's Alpha: Separation .58, marginalization .72, assimilation .77, and integration .67.; CV = coefficient of variation.

Close examination of the items involved in the four acculturation dimensions were informative. Items of separation and integration retained the highest mean values followed by questions under the dimension of assimilation; items associated with marginalization appeared to have the least mean values. Some of the items that yielded the highest and lowest means associated with the four acculturation dimensions are detailed below.

The Separation Dimension. Separation occurs when individuals reject the host society cultural norms while maintaining their cultural values. The overall spans of the items that constitute this dimension seem to indicate little variability; however, close

examination of the individual questions was revealing. Within this dimension, the analysis suggested that “having the closest friends from own ethnic group,” “preferring to listen own ethnic music,” and “preferring to associate in social gatherings where most of the people are from own ethnic group” were rated the highest. The analysis of the individual items for this dimension suggested that most of research participants were more separated in “choosing their friends,” “the kind of music they listen to,” and “the kind of people they prefer to associate in social events”. On the other hand, they were less separated in “how they are treated,” “who they date,” and on “how comfortable they feel” (see Table 13) for details.

The Integration Dimension. Integration is defined as the status of individuals adapting to the cultural norms of the host culture while maintaining their own cultural values. This dimension had the second highest mean-value, both as a dimension and in terms of individual items. The highest mean values were associated with “feeling valued by both ethnic groups and Americans,” and “feeling comfortable being around own ethnic groups and Americans”. The lowest scores were linked to items associated with “being able to think in English as they do in their own ethnic language,” and “having the ability to tell jokes both in their own ethnic language and English”. These findings seem to indicate that the Horn of Africa immigrants are less confident about their English skills; they feel valued by their own ethnic groups and Americans, and feel comfortable being around individuals from their own ethnic groups and Americans. The findings are detailed in Table 13.

The Assimilation Dimension. Assimilation occurs when immigrants reject their cultural values and adapt to the cultural norms of the host culture. This assimilation dimension was rated third, and very little variability existed between the mean values of its

items; all scores were below median value. Nonetheless, items such as “most of my friends at work/school are Americans,” “finding it easier to communicate one’s feelings to Americans compared to one’s own ethnic group,” and “feeling that Americans understand them better than individuals from own ethnic group” showed the highest mean values within this dimension. Similarly, items like “spoke more in English rather than own ethnic language at home,” “able to write better in English than own ethnic language,” “getting along better with Americans than people of own ethnic group,” “feeling more comfortable socializing with Americans than individuals of own ethnic group,” and “preferring to write poetry in English than own ethnic group language” yielded the least mean values within this dimension. The findings are presented in Table 13.

The Marginalization Dimension. Marginalization occurs when immigrants reject both their ethnic culture and the host culture. This dimension had very little variability between its items. Two items, i.e. “finding it hard to make friends,” and “sometimes finding it hard to trust both Americans and individuals of one’s own ethnic group”, show a bit higher mean-value than the rest of the items.

Overall, the items associated with this dimension produced the least mean values. Research participants “disagreed” rather than “agreed” with the items associated with this particular dimension. It can be said the same with the items associated with the dimension of assimilation. The mean values for the above dimension are detailed in Table 13.

Table 13

Descriptive Statistics for Acculturation Dimensions Items (N = 292)

Items	<i>M</i>	<i>SD</i>	<i>CV</i> = Sd/\bar{x}
<i>Assimilation Items</i>			
1 I write better in English than in my native language.	1.98	0.75	0.38
2 For the most part when I am in my home, I speak English rather than my native language.	1.99	0.74	0.37
3 If I were asked to write poetry, I would prefer to write it in English.	1.90	0.76	0.40
4 I get along better with Americans than people from my native country.	1.96	0.71	0.36
5 I feel that Americans understand me better than people from my native country.	2.00	0.73	0.37
6 I find it easier to communicate my feelings to Americans than to people from my native country.	2.05	0.71	0.35
7 I feel more comfortable socializing with Americans than I do with people from my native country.	1.95	0.63	0.32
8 Most of my friends at work/school are Americans.	2.14	0.67	0.31
<i>Separation Items</i>			
9 Most of the music I listen to is my native music.	3.06	0.74	0.24
10 My closest friends are from my own ethnic group.	3.10	0.79	0.25
11 I prefer going to social gatherings where most of the people are from my native country.	3.02	0.75	0.24
12 I feel that people from my native country treat me as an equal more so than Americans do.	2.51	0.87	0.35
13 I would prefer to go out on a date with people from my native country than with Americans.	2.86	0.88	0.31
14 I feel more relaxed when I am with a person from my native country than when I am with an American.	2.79	0.80	0.29
15 People from my ethnic group should not date people who are not from our ethnic group.	2.13	0.81	0.38
<i>Integration Items</i>			
16 I tell jokes in English and in my native language.	2.35	0.79	0.34
17 I think as well in English as I do in my native language.	2.36	0.75	0.32
18 I have friends, both American and people from my native country.	2.90	0.68	0.23
19 I feel that both people from my native country and Americans value me.	3.04	0.71	0.23
20 I feel very comfortable around both Americans and people from my native country.	3.02	0.60	0.20
<i>Marginalization Items</i>			
21 Generally, I find it difficult to socialize with people, (both American and people from my native country).	1.65	0.69	0.42
22 I sometimes feel that neither Americans nor people from my native country like me.	1.73	0.77	0.44
23 There are times when I think no one understands me.	1.93	0.74	0.38
24 I sometimes find it hard to communicate with people in general.	1.84	0.75	0.41
25 I sometimes find it hard to make friends.	2.01	0.82	0.41
26 Sometimes I feel people from my native country and Americans do not accept me.	1.77	0.77	0.44
27 Sometimes I find it hard to trust both Americans and people from my native country.	2.20	0.77	0.35
28 I find that people from my native country and Americans often have difficulty understanding me.	1.85	0.65	0.35
29 I find that I do not feel comfortable when I am with other people.	1.76	0.65	0.37

Note. Acculturation was measured on a four point Likert-type scale ranging from “strongly disagree” (1) to “strongly agree” (4); CV = coefficient of variation.

Perceived Language Competency

According to the findings detailed in Table 14, the overall immigrants' perceived language competency ranked from highest in native language reading and writing, followed by perceived English language reading, writing and speaking. The findings also suggested that participants were more competent in their reading ability than their ability to speak English. However, their ability to speak English is better than their ability to write in the English. Overall, the findings suggested that research participants were more competent to communicate in their own ethnic language than in English (see Table 14).

Table 14

Descriptive Statistics for Perceived Language Competency Items (N=292)

Items	<i>M</i>	<i>SD</i>	<i>CV= Sd/\bar{x}</i>
1 What is your ability to read English?	2.80	0.76	0.27
2 What is your ability to write English?	2.54	0.76	0.30
3 What is your ability to understand spoken English?	2.65	0.77	0.29
4 What is your ability to read in your native language?	3.50	0.84	0.24
5 What is your ability to write in your native language?	3.44	0.88	0.25

None. Language items were measured on a four point Likert-type scale ranging from "poor" (1) to "excellent" (4); CV= coefficient of variation.

Relationships between Variables

Pearson correlations were conducted to assess (a) all independent and dependent variables and (b) gender and Internet usage and acculturation dimensions. Pearson correlation coefficient (r) can range in value from (+1) to (-1). While a value of 0 indicates there is no association between the variables considered, a value greater or less than 0 depending on the direction of the association indicates a positive or negative association. Researchers categorize correlations in relative strength from weak to strong. Although

association strength for the most part depends on what one is measuring, the general guideline for accessing values is: values between 0.1 to 0.2 are considered weak, 0.3 to 0.5 moderate and 0.5 to 0.8 strong for both positive and negative values (Zou, Tuncali, & Silverman, 2003). The value of the Pearson correlations coefficients between the above measures are presented below.

Correlations for the Four Acculturation Dimensions

According to the Pearson's correlation analysis in Table 15, there is significant negative correlation between assimilation and separation ($r = -.15, p=0.012$), and between integration and marginalization ($r = -.19, p=0.001$). In other words, the more immigrants assimilated the less likely they would be separated, and the more they were integrated the less likely they would be marginalized. The data also showed significant positive correlation between integration and assimilation ($r = .24, p=0.000$). The data also found significant positive correlation between assimilation and marginalization ($r = .22, p=0.000$), indicating assimilation and marginalization are positively related.

Internet Usage and Acculturation Dimensions

There were significant positive correlations between integration and all four Internet usage factors. There were also significant positive correlations between assimilation and U.S. networking and between assimilation and U.S. entertainment. These findings are detailed in Table 15.

Internet Usage and Language Competency

A significant positive correlation was registered between U.S. networking and perceived English language competency ($r = .42, p=.000$). The data also showed significant

positive correlation between U.S. entertainment and perceived English language competency ($r = .35, p=.000$), and between ethnic networking and perceived English language competency ($r = .34, p=.000$). The correlation findings are presented in Table 15.

Internet Usage Categories and Demographics Correlation

In this part of the correlation analysis, the four Internet usage categories and demographic variables (length of Internet usage prior to arrival in the U.S., length of Internet usage in the U.S., age, and length of residence in the United States) were analyzed. According to the findings in Table 15, significant positive correlation between all Internet usage categories and both education attained prior to arrival to the United States and education attained in the U.S. were found.

There was significant negative correlation between age and the four Internet usage categories. In other words, the above findings signified that as participants age, their use of all four Internet usage categories decreases. Additionally, the data showed significant positive correlation between length of residence in the United States and all Internet usage categories, i.e., U.S. networking, U.S. entertainment, ethnic networking, and ethnic entertainment with ($r = .42, p=.000$; $r = .35, p=.000$; $r = .34, p=.000$; and $r = .32, p=.000$, respectively), indicating that the longer immigrants reside in the United States, the more likely they are to use the Internet (see Table 15).

Acculturation and Perceived Language Competency.

The data found significant positive correlation between perceived English language competency and both integration and assimilation ($r = .33, p=.000$ and $r = .36, p=.000$,

respectively), meaning that those who reported to be competent in the English language tended to also report high in integration and assimilation (see Table 15).

Acculturation and Demographics Variables.

There was a significant positive correlation between assimilation and both education attained prior to migration to the U.S. and education attained in the U.S. ($r = .13, p=.02$; $r = .12, p=.04$, respectively). There was also significant positive correlation between integration and education attained in the U.S. ($r = .17, p=.003$).

The analysis also found significant positive correlations between the length of Internet usage back home and both integration and assimilation ($r = .20, p=.001$; $r = .12, p=.04$, respectively). A significant positive correlation was found between the length of Internet usage in the U.S. and integration ($r = .24, p=.000$). The data also showed significant positive correlation between length of residence in the U.S. and length of Internet usage in the U.S. ($r = .68, p=.000$), indicating that the longer immigrants reside in the United States, the more likely they are to use the Internet (see Table 15).

Table 15

Pearson Correlations Matrix for All Variables (N= 292)

Items	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	2.09	9.43	--															
2. Education back home	2.67	1.06	.08	--														
3. Education in U.S.	2.10	1.47	-.02	.37**	--													
4. Internet usage back home	1.87	2.78	-.20**	.30**	.15*	--												
5. Internet usage in U.S.	3.09	2.83	-.05	.01	.17**	.04	--											
6. Years resided in U.S.	4.75	3.41	.18**	-.22**	.00	-.24**	.68**	--										
7. Perceived English Language	2.67	0.65	-.22**	.34**	.25**	.33**	.31**	.11	--									
8. Perceived Ethnic Language	3.47	0.84	.06	.32**	.12*	.17**	.06	-.09	.13*	--								
9. U.S. Networking	2.29	3.08	-.16**	.28**	.27**	.44**	.31**	.08	.42**	.01	--							
10. U.S. Entertainment	3.25	2.96	-.26**	.22**	.15*	.38**	.26**	.01	.35**	.12*	.58**	--						
11. Ethnic Networking	3.71	2.81	-.37**	.28**	.18**	.37**	.27**	-.05	.34**	.14*	.45**	.53**	--					
12. Ethnic Entertainment	4.83	3.11	-.27**	.26**	.17**	.29**	.31**	.03	.32**	.24**	.29**	.51**	.61**	--				
13. Integration	3.69	2.34	-.13*	.09	.17**	.20**	.24**	.04	.33**	.04	.31**	.26**	.24**	.22**	--			
14. Assimilation	6.02	3.57	-.08	.13*	.12*	.12*	.09	.02	.33**	-.10	.23**	.17**	.08	.10	.24**	--		
15. Separation	9.50	3.03	.06	-.02	-.05	-.03	.04	.07	-.03	.05	-.08	-.10	.09	.13*	.02	-.15*	--	
16. Marginalization	6.78	3.71	-.06	.04	.03	-.10	-.13*	-.12*	-.06	.01	.01	.03	.05	-.01	-.19**	.22**	-.01	--

Note. Language items were measured on a 4- point Likert-type scale ranging from “poor” (1) to “excellent” (4); acculturation items were measured on a 4-point Likert-type scale ranging from “strongly disagree” (1) to “strongly agree” (4), and Internet usage items were measured on a 4-point Likert-type scale ranging from “not at all ” (0) to “daily” (3).

** $p < .01$, two-tailed. * $p < .05$, two-tailed.

The Effect of Gender

According to the correlation analysis in Table 16, the data seem to indicate some discrepancies existed between male and female patterns of Internet usage and acculturation. While the correlation analysis shows significant positive correlations between male U.S. networking, U.S. entertainment, ethnic entertainment and assimilation ($r = .25, p=.004, r =.19, p=.02, r =.25, p=.004$, respectively), there exists significant positive correlation only between female U.S. networking and assimilation ($r = .19, p=.02$). The complete analysis is detailed in Table 16.

Table 16

Pearson Correlations Matrix of Gender, Internet Usage and Acculturation Dimensions

($N=292$)

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
Male	1. U.S. Networking	137	2.64	3.39	--						
	2. U.S. Entertainment	137	3.61	3.10	.56**	--					
	3. Ethnic Networking	137	3.75	2.78	.48**	.48**	--				
	4. Ethnic Entertainment	137	5.32	3.10	.31**	.48**	.59**	--			
	5. Integration	137	13.67	2.29	.32**	.25**	.23**	.23**	--		
	6. Assimilation	137	15.54	3.53	.25**	.20*	.09	.25**	.26**	--	
	7. Separation	137	19.63	2.85	-.07	-.05	.07	.11	.01	-.05	--
	8. Marginalization	137	17.13	3.91	-.07	.08	.02	.02	-.27**	.22**	-.00--
Female	1. U.S. Networking	155	2.01	2.82	--						
	2. U.S. Entertainment	155	2.92	2.79	.59**	--					
	3. Ethnic Networking	155	3.67	2.83	.43**	.58**	--				
	4. Ethnic Entertainment	155	4.39	3.05	.24**	.53**	.63**	--			
	5. Integration	155	13.18	2.03	.29**	.26**	.24**	.19*	--		
	6. Assimilation	155	15.49	3.19	.19*	.12	.07	-.07	.21**	--	
	7. Separation	155	19.25	2.88	-.11	-.16	.10	.13	.01	-.25**	--
	8. Marginalization	155	16.54	3.45	.08	-.04	.06	-.07	-.13	.20*	-.02--

Note. Acculturation items were measured on a 4-point Likert-type scale ranging from “strongly disagree” (1) to “strongly agree” (4), and Internet usage items were measured on a 4-point Likert-type scale ranging from “not at all” (0) to “daily” (3).

** $p < .01$, two-tailed. * $p < .05$, two-tailed.

Results of Research Questions

This section of the chapter presents the results related to the research questions. The first research question asks if there was a relationship between the type of Internet usage and acculturation of the Horn of Africa immigrants. Multiple regression analysis was utilized to answer this question. The second question asks if there was a relationship between the frequency of Internet usage and acculturation of the Horn of Africa immigrants. This question was answered using Pearson correlations.

In answering the first research question, a multiple regression analysis using simultaneous entry or forced entry was utilized. With this method, all variables in a block are entered in a single step. Results of the multiple regression analyses are presented in two stages. The first stage consisted of a comprehensive analysis. In this stage, four separate regression analyses, which involved entering all explanatory variables including the demographic variables, were carried out to predict the four dependent variables of acculturation dimensions.

The second stage consisted of parsimonious analyses. In this stage of the multiple regression analyses, simultaneous entry was used, entering all the explanatory variables, including the demographic variables at once to predict the four acculturation dimensions. One item with the least significance was eliminated, and using backward elimination, regression analyses were rerun. This process was repeated until only explanatory variables with a significant *p-value* remained in the model. This was done to isolate those explanatory variables with significant contributions to the model. Tables that reflected these analyses are presented below.

Macro Level: The Relationship between the Type of Internet Usage and Acculturation of the Horn of Africa Immigrants

Four separate comprehensive regression analyses were conducted, influencing the dependent variables of integration, assimilation, separation, and marginalization. The results of these analyses are presented in Tables 17, 18, and 19.

Integration. A multiple regression analysis was performed using all explanatory variables including demographic variables in order to determine each predictor variable's contribution to the regression equation. When all explanatory variables were considered, the result was found to be statistically significantly associated with integration, $R^2 = .19$, $F(15, 276) = 4.28$, $p < 0.000$. The multiple correlation coefficient R yielded .44, while R^2 was .19, indicating that approximately 19% of the variance of Integration can be accounted for by the linear combination of the predictor variables. However, as is noted in Table 17, when all the explanatory variables are considered, only perceived English language competency, duration of Internet usage in U.S., and highest education completed back home are significant.

Table 17

Macro Level Multiple Regression Analyses Predicting Integration (N=292)

Variable	b	β	t	p
(Constant)	12.78		10.08	.000
Duration of Internet usage in U.S.	.17	.21*	2.36	.019
Perceived English Language competency	.76	.21**	3.17	.002
U.S. Networking	.1	.13	1.7	.090
Highest education completed in U.S.	.07	.05	.72	.471
U.S. Entertainment	.03	.04	.47	.636
Ethnic Networking	.02	.03	.34	.736
Duration of Internet usage back home	.02	.02	.29	.771
Ethnic Entertainment	.02	.02	.32	.752
Perceived Ethnic Language competency	-.01	0	-.05	.962
Age	0	0	.03	.978
Immigration Status	-.14	-.04	-.65	.519
Ethnicity	-.17	-.05	-.87	.383
Gender	-.31	-.07	-1.12	.265
Highest education completed back home	-.3	-.14*	-1.92	.056
Number of years residing in the U.S.	-.09	-.14	-1.57	.117

Note. b = unstandardized partial regression coefficient; β = beta weight, i.e., standardized partial regression coefficient; t = t -value of unstandardized regression coefficient; p = p -value, i.e., the significance level. These macro level statistics are predicting integration. $F(15, 276) = 4.28$, $p < 0.000$, $R^2 = .19$.

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

Assimilation. The regression analyses for this dimension resulted in statistically significant association with assimilation, $R^2 = .16$, $F(16, 275) = 3.30$, $p < 0.000$. Further, the multiple correlation coefficient R was .39, while R^2 rendered .16, indicating that 16% of the variance in assimilation can be accounted for by the explanatory variables. Again, with this model, when all independent variables are considered, three explanatory variables, i.e., U.S. Networking, perceived English language competency, and perceived ethnic language competency, are significant contributors to the model. The details on the variables are presented in Table 18 below.

Table 18

Macro Level Multiple Regression Analyses Predicting Assimilation (N=292)

Variable	b	β	t	p
(Constant)	15.05		7.59	.000
Perceived English Language competency	1.66	.3**	4.42	.000
U.S. Networking	.11	.19	1.22	.224
U.S. Entertainment	.06	.05	.64	.523
Highest education completed back home	.10	.03	.40	.692
Ethnic Entertainment	.03	.03	.35	.724
Duration of Internet usage in U.S.	.01	.01	.13	.901
Highest education completed in U.S.	.00	.00	-.03	.978
Duration of Internet usage back home	-.01	-.01	-.15	.878
Age	-.01	-.02	-.32	.750
Number of years residing in the U.S.	-.03	-.03	-.33	.741
Ethnicity	-.19	-.04	-.64	.526
Gender	-.25	-.04	-.57	.568
Immigration Status	-.28	-.05	-.81	.418
Ethnic Networking	-.15	-.12	-1.44	.152
Perceived Ethnic Language competency	-.62	-.15*	-2.40	.017

Note. b = unstandardized partial regression coefficient; β = beta weight, i.e., standardized partial regression coefficient; t = t -value of unstandardized regression coefficient; p = p -value, i.e., the significance level. These macro level statistics are predicting assimilation. $F(16, 275) = 3.30, p < 0.000$, $R^2 = .16$.

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

Separation. The third dependent variable considered for the regression analyses was separation. All explanatory variables combined resulted in a statistically significant association with separation, $R^2 = .10, F(15, 276) = 1.93, p < 0.020$. In this analysis, the multiple correlation coefficients R was .31, while R^2 produced .10, indicating 10% of the variance of separation can be explained by the explanatory variables. As shown in table 19, U.S. entertainment, ethnic networking, and ethnic entertainment are significant.

Table 19

Macro Level Multiple Regression Analyses Predicting Separation (N=292)

Variable	b	β	t	p
(Constant)	19.2		11.46	.000
Ethnic Networking	.2	.18*	2.22	.030
Ethnic Entertainment	.17	.17*	2.12	.040
Number of years residing in the U.S.	.12	.14	1.46	.150
Age	.02	.05	.76	.450
Perceived Ethnic Language competency	.14	.04	.60	.550
Immigration Status	.11	.02	.35	.730
Duration of Internet usage back home	.03	.02	.34	.732
Perceived English Language competency	-.10	-.02	-.30	.770
Duration of Internet usage in U.S.	-.06	-.06	-.61	.543
Highest education completed in U.S.	-.12	-.06	-.88	.380
U.S. Networking	-.06	-.07	-.79	.430
Highest education completed back home	-.19	-.07	-.91	.360
Gender	-.44	-.07	-1.16	.248
Ethnicity	-.45	-.11	-1.68	.095
U.S. Entertainment	-.22	-.21*	-2.65	.010

Note. b = unstandardized partial regression coefficient; β = beta weight, i.e., standardized partial regression coefficient; t = t -value of unstandardized regression coefficient; p = p -value, i.e., the significance level. These macro level statistics are predicting separation. $F(15, 276) = 1.93, p < 0.020, R^2 = .10$.

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

Marginalization. When all explanatory variables including demographic variables are considered simultaneously to predict the dimension of marginalization, the analyses resulted in a statistically insignificant association.

Parsimonious Level: The Relationship between the Type of Internet Usage and Acculturation of the Horn of Africa Immigrants

The first research question was to examine the relationship between the type of Internet usage and acculturation. Parsimonious analysis was conducted to isolate the explanatory variables that retained significant contribution to the equation of the four

dependent variables. From the macro level multiple regression analysis, the predictor variables exhibited statistical significance association with integration, assimilation, and separation. Therefore, only these three dependent variables were subject to the parsimonious multiple regression analysis.

All explanatory variables including demographic variables were entered into the regression equation simultaneously to predict the four acculturation dimensions. Backward elimination was utilized. With such a method, the predictor with the least significance value was removed from the equation one at a time, and the process repeated until only the explanatory variables with significant *p-values* remained in the model. The findings of these analyses are presented below.

Integration. The analysis of this regression resulted in a model that consisted of two explanatory variables, U.S. networking and perceived English language competency. The analysis resulted in a statistically significant association with integration, $R^2 = .15$, $F(2,289) = 24.13$, $p < .000$. The result indicated the above two predictor variables accounted for 15% of variance in integration. However, U.S. networking accounted only for 5% of the variance in integration after perceived English language competency had been partialled out or controlled for. Likewise, perceived English language competency accounted for 6% of the variance in integration after U.S. networking was partialled out. Further, while U.S. networking yielded standardized partial regression coefficient, $\beta = .21$, $p = .001$, perceived English language competency produced $\beta = .24$, $p = .000$. For this analysis, the multiple correlation $R = 0.38$. These findings are presented in Table 20.

Assimilation. The parsimonious multiple regression analysis resulted in two statistically significant predictor variables. These are U.S. networking and perceived English language competency. These two predictor variables resulted in a statistically significant association with assimilation: $R^2 = .17$, $F(2,289) = 19.42$, $p < .000$, and accounted for 17% of the variance in assimilation. With perceived English language competency partialled out, U.S. networking accounts for 1% of the variance in assimilation. Similarly, with U.S. networking partialled out or controlled for, perceived English language competency accounts for 8% of the variance in assimilation. The standardized partial regression coefficient for U.S. networking is $\beta = .10$, $p = .044$, while perceived English language competency is $\beta = .29$, $p = .000$. The multiple correlation coefficient R is .35. For more details of the analysis, refer to Table 20.

Separation. An examination of the parsimonious regression analysis resulted in two predictor variables with a statistically significant association with separation: $R^2 = .05$, $F(2,289) = 7.80$, $p < .001$, and accounts for 5% of the variance in separation. The standardized partial regression coefficient for U.S. networking is $\beta = -.22$, $p = .001$, while ethnic entertainment consisted of $\beta = .23$, $p = .000$. Further, the multiple correlation coefficient R was .23. The findings are detailed in Table 20.

Table 20

Parsimonious Multiple Regression Analyses Variables Influencing Integration, Assimilation and Separation (N=292)

Variable	b	β	t	p
<i>Variables Influencing Integration</i>				
(Constant)	11.01		19.75	.000
Perceived English language competency	.87	.24**	4.00	.000
U.S. Networking	.16	.21**	3.46	.001
<i>Variables Influencing Assimilation</i>				
(Constant)	11.5		13.3	.000
Perceived English language competency	1.59	.29**	4.73	.000
U.S. Networking	0.12	.10*	1.68	.044
<i>Variables Influencing Separation</i>				
(Constant)	19.11		58.63	.000
U.S. entertainment	-.22	-.22**	-3.28	.001
Ethnic entertainment	.23	.24**	3.57	.000

Note. b = unstandardized partial regression coefficient; β = beta weight, i.e., standardized partial regression coefficient; t = t -value of unstandardized regression coefficient; p = p -value, i.e., the significance level.

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

In this study, acculturation could mean integration or assimilation, while Internet usage means any or all of the four Internet usage factors (U.S. networking, U.S. entertainment, ethnic networking, and ethnic entertainment). Therefore, the parsimonious multiple regression analysis suggests a relationship between Internet usage and acculturation. The analysis shows U.S. networking (i.e. Facebook, Twitter, Google plus, LinkedIn, email, and Skype) is found to have statistically significant association with both integration and assimilation. In other words, the findings suggest that only immigrants' online communication and interaction with Americans proves to have statistically significant association with their acculturation process.

The Relationship between Frequency of Internet Usage and Acculturation of the Horn of Africa Immigrants

In examining this research question, Pearson correlation was utilized. Again, in this study, acculturation could mean either integration or assimilation. For this particular analysis, the four Internet usage factors and the acculturation dimensions of integration and assimilation were considered.

According to the correlation analysis in Table 15, there are significant positive correlations between (a) integration and U.S. networking ($r = .31, p = .000$), (b) integration and U.S. entertainment ($r = .26, p = .000$), (c) integration and ethnic networking ($r = .24, p = .000$), and (d) integration and ethnic entertainment ($r = .22, p = .000$). There are also significant positive correlations between assimilation and U.S. networking ($r = .23, p = .000$), and between assimilation and U.S. entertainment ($r = .17, p = .000$).

These findings indicate that high U.S. networking usage is correlated with both integration and assimilation. In other words, those high U.S. networking users tend to be higher in their integration and assimilation. The above analysis also suggests that communication and interaction, i.e., U.S. networking and U.S. entertainment, retained the highest positive correlation with both integration and assimilation. Overall, significant positive correlation between integration and all Internet usage factors was found. However, assimilation only showed significant positive correlation between high U.S. networking usage and high U.S. entertainment usage.

Internet Usage and Acculturation Path Models

In this section, I propose path models of Internet usage in acculturation by scrutinizing the particular contribution of the predictor variables, i.e., the four Internet usage factors, perceived English language competency, and demographic variables to explaining the two acculturation dimensions of integration and assimilation. For the purpose of this study, acculturation was conceptualized and operationalized as socio-cultural acculturation.

From the parsimonious multiple regression analyses, predictor variables, i.e. U.S. networking and perceived English language competency, resulted in a statistically significant association with acculturation dimensions of integration and assimilation. Therefore, I conducted path analysis on the above two explanatory variables.

Both involved parsimonious multiple regression scrutiny. Again, as was the case with the parsimonious multiple regression analysis, backward elimination was used in isolating the predictor variables that retained statistically significant association with U.S. networking and perceived English language competency. The analyses of the above predictor variables are presented below.

For these analyses, only predictor variables that were previously found to have conceptual and empirical association with both U.S. networking and perceived English language competency, e.g., education level, age, length of residence, ethnic networking, ethnic entertainment, and gender were considered.

U.S. Networking

The analysis for U.S. networking resulted in a model that consisted of two explanatory variables, highest education completed prior to arrival in the U.S., and number of years residing in U.S. Using the backward elimination method, a significant model emerged, $R^2 = .10$, $F(2,289) = 15.41$, $p < .000$. Highest education completed prior to arrival in the U.S. accounted for 9% of the variance in U.S. networking, while number of years residing in U.S. accounted for 2% of the variance in U.S. networking. Further, highest education completed prior to arrival in the U.S. contributed to the model ($\beta = .31$, $p = .000$), and number of years residing in U.S. contributed ($\beta = .15$, $p = .009$).

Perceived English Language Competency

Again, using the backward elimination method, a significant model emerged, $R^2 = .24$, $F(3,288) = 29.18$, $p < .000$. This model consisted of the statistically significant predictor variables of age, highest education completed prior to arrival in the U.S., and number of years residing in U.S. Age accounted for 9% of the variance in perceived English language competency, while highest education completed prior to arrival in the U.S. accounted for 17%, and number of years resided in U.S. accounted for 6%. The contributions to the model by the significant variables were (a) age ($\beta = -.30$, $p = .000$), (b) highest education completed prior to arrival in the U.S. ($\beta = .42$, $p = .000$), and (c) number of years residing in the U.S. ($\beta = .25$, $p = .000$). For full details of the above analyses see Figures 5 and 6.

The parsimonious multiple regression analyses suggest that U.S. networking and perceived English language competency predicts both integration and assimilation. Similarly, the above analyses show that highest education completed prior to arrival in the U.S. and number of years residing in U.S. predicts U.S. networking; while age, highest education completed prior to arrival in the U.S., and number of years residing in U.S. predicts perceived English language competency.

The results of this study suggest that U.S. networking and perceived English language competency are significant predictors of both integration and assimilation. U.S. networking was found to be a higher significant predictor for integration than it was for assimilation. Generally, U.S. networking and perceived English language competency, as well as the demographic variables — age, education level, and number of years residing in the U.S. — influence the Horn of Africa immigrant acculturation. Overall, the findings of this study suggest that immigrants who use the Internet to communicate and interact with Americans and those who use it more frequently exhibit a higher level of socio-cultural acculturation. The findings are detailed in Table 21.

Table 21

Parsimonious Multiple Regression Analyses-Variables Influencing U.S. Networking and Perceived English Language Competency (N=292)

Variable	b	β	t	p
<i>Variable Influencing U.S. Networking</i>				
(Constant)	-0.73		-1.25	.212
Highest education completed back home	0.89	.31**	5.34	.000
Number of years residing in the U.S.	0.14	.15**	2.62	.009
<i>Variable Influencing English Language Competency</i>				
(Constant)	2.43		16.53	.000
Age	0.02	-.30**	-5.70	.000
Highest education completed back home	0.26	.42**	7.79	.000
Number of years residing in the U.S.	0.05	.25**	4.65	.000

Note. b = unstandardized partial regression coefficient; β = beta weight, i.e., standardized partial regression coefficient; t = t -value of unstandardized regression coefficient; p = p -value, i.e., the significance level.

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

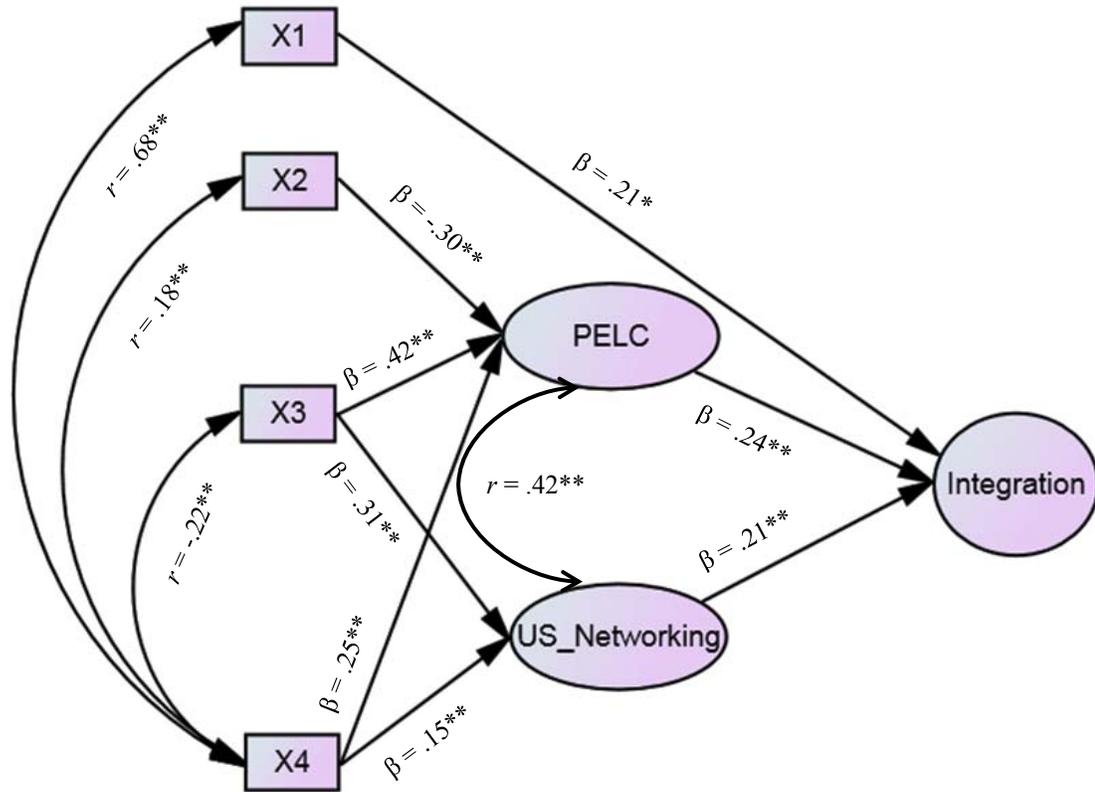


Figure 5. A path model of Internet usage in Integration with Pearson correlations (r) and beta weight (β). PELC = perceived English language competency; X₁ = duration of Internet usage in the U.S., X₂= age; X₃= highest education completed prior to arrival in the U.S.; X₄= number of years residing in the U.S.

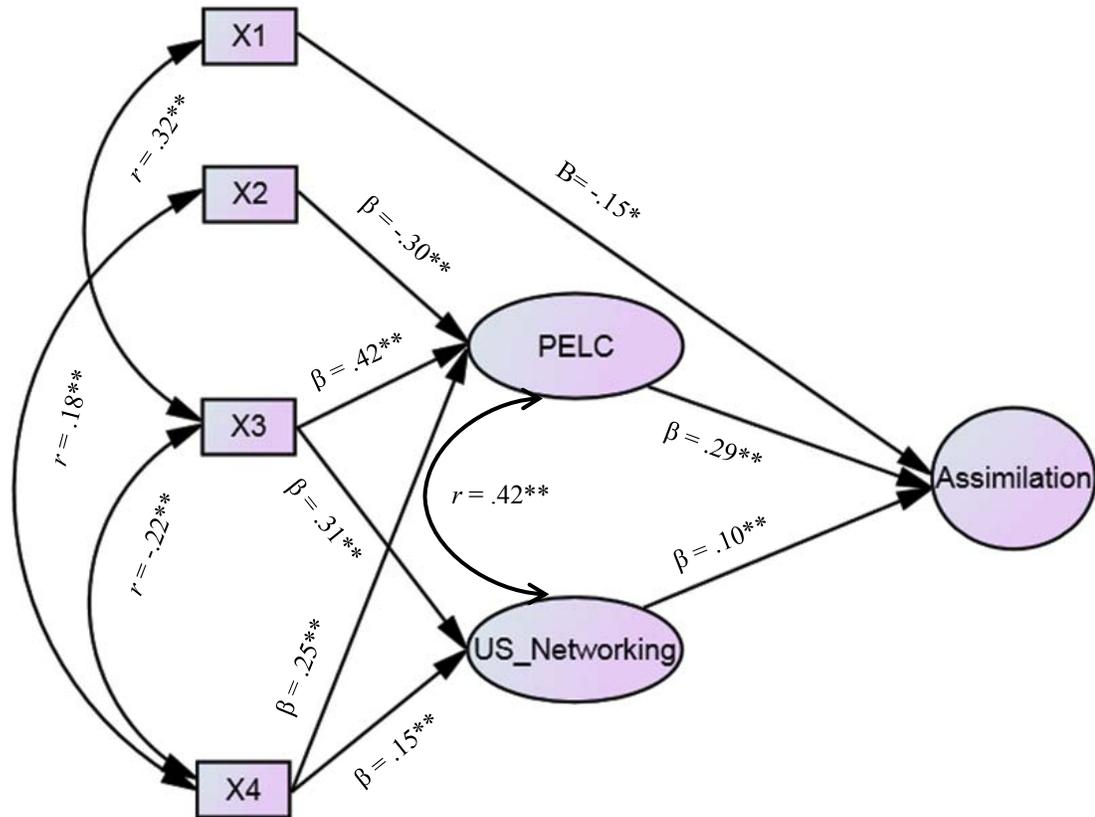


Figure 6. A path model of Internet usage in assimilation with Pearson correlations (r) and beta weight (β). PELC = perceived English language competency; X₁ = Perceived ethnic language competency, X₂= age; X₃= highest education completed prior to arrival in the U.S.; X₄= number of years residing in the U.S.

Summary

In answering the research questions detailed in Chapter Three, several statistical analyses were utilized. First, descriptive statistics were offered discussing immigrants' acculturation dimensions. Descriptive analysis was also used in exploring immigrants' Internet usage and demographic variables. The findings of the descriptive analysis revealed the mean-values for the acculturation dimensions of integration and separation to be higher than for assimilation and marginalization. The findings also revealed higher

mean-values for Internet usage factors of ethnic entertainment and ethnic networking as opposed to U.S. entertainment and U.S. networking.

The results of the correlational analysis show significant positive relationships between all four Internet usage factors and integration. They also demonstrate significant positive correlations between U.S. networking, U.S. entertainment, and assimilation.

The findings from the multiple regression analysis reveal that there exists a statistically significant association between U.S. networking and both integration and assimilation. More specifically, these findings suggest that there is a significant relationship between Internet use to communicate with people from the host society (U.S.) and the acculturation dimensions of integration and assimilation.

In summary, the first research question was posed as this: *what is the relationship between the type of Internet usage and acculturation of the Horn of Africa immigrants?* The results are essentially affirmative in nature: there is a strong relationship between U.S. networking and both integration and assimilation.

The second research question asked: *what is the relationship between the frequency of Internet usage and acculturation of the Horn of Africa immigrants?* Significant positive correlations were found between all four Internet usage factors and integration. Also, the correlational analysis found significant positive correlation between U.S. networking, U.S. entertainment, and assimilation.

Finally, the overall research question asked: *what is the relationship between the Horn of Africa immigrants' Internet usage and acculturation?* For the most part, there is a strong relationship between Internet usage and the acculturation dimensions

of integration and assimilation. Furthermore, based on the findings of this study, I propose path models of Internet usage in acculturation. In this chapter, the findings from the data analysis were offered. Equally, in the next chapter, a discussion of these findings with reference to the literature review is presented.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

This chapter consists of four parts. First, the purpose of the study and the research questions are restated. Second, discussion of the findings with reference to the literature review is offered. Third, path models of Internet usage and acculturation are proposed. Finally, implications, limitations and recommendations for future research studies and the conclusion are given.

The purpose of this study is to examine the influence of the Internet on the acculturation process of the Horn Africa immigrants. In particular, the relationship between the type of Internet communication and interaction, as well as the frequency of the communication and interaction and acculturation are considered.

The overarching research question guiding this study was: what is the relationship between Internet usage and acculturation of Horn Africa immigrants in the United States culture? In answering the main research question, these two secondary questions were examined:

Q1: What is the relationship between the type of Internet usage and

acculturation of the Horn of Africa immigrants?

Q2: What is the relationship between the frequency of Internet usage and

acculturation of the Horn of Africa immigrants?

Discussion

In this section of the chapter, I first offer a brief discussion with regard to the direction of the research participants' acculturation based on the four acculturation

dimensions. Second, I present a discussion concerning the main research questions and the proposed path models.

Acculturation of the Horn of Africa Immigrants

Immigrants in this study for the most part are recent arrivals. Almost 55% percent of those who participated in this study have lived in the United States for less than five years. Overall, 94% of the research participants have lived in the U.S. for less than ten years.

What are the major drivers in terms of immigrants' attitudes towards life in their new home? Integration is clearly preferred, but feelings of separation are also high. Such conflicting results can be explained by the theory that while individuals prefer to separate themselves from the dominant culture, the decision to integrate indicates a desire to both retain their cultural values and to adapt to the dominant culture by learning necessary skills and values. Findings suggest that while most survey participants want to remain faithful to their ethnic and cultural values and characteristics, as many as half of the participants also find it practical to adapt to the dominant culture.

These findings are consistent with those of Suárez-Orozco (2000), who concluded that new immigrants enter social spaces, ethnic, racial and ethnic categories which are important gravitational fields in the U.S. In that respect, immigrants frequently end up relocating to an area of the U.S. that has an existing immigrant population from their native country or region.

Crossing international boundaries bring extensive life changes, including exposure to new cultural values, social rules, policies, and material environments, as well as a sense of loss of career, social ties, social status, and social identity (Tsai, 2006). Therefore, to compensate for these shortcomings or reduce stress, these immigrants choose their settlement areas in ways that enable them to tap into existing networks of support (Arthur, 2000). Consequently, new immigrants can maintain and revive their own ethnic cultural values and characteristics, making integration that depends on maintaining ethnic ties their ultimate goal over assimilation where such ties are lost.

These findings in part also support Berry's four-fold theory. Berry's extensive literature in acculturation has shown that the best way for immigrants to acculturate into their host society is to take part in the day-to-day life of the host society while continuing to maintain their cultural values of origin. This acculturation strategy is known as integration. Other scholars (e.g., Beiser, Dion, Gotowiec, Hyman & Vu, N., 1995; Davies, & McKelvey 1998; Farver, Bhadha, & Narang, 2002; Luque, del Carmen García Fernández, & Tejada, 2006; Van Oudenhoven, Prins, & Buunk, 1998), also have supported these findings, that immigrants who choose integration as their acculturation approach do better in their acculturation than those who choose otherwise. However, the findings of the current study are in contrast with previously held assumptions of the assimilation theory. Assimilation theory assumes that minority/immigrants lose their cultural distinctiveness as they acquire the host culture's identity (LaFromboise, Coleman, & Gerton, 1993).

The most notable finding of this study is the existence of a significant positive correlation between assimilation and marginalization. Assimilation implies that immigrants assume the cultural values and characteristics of the dominant group, while marginalization means that immigrants feel separated from both their own and the host cultures. These findings may indicate that participants who seek assimilation may find themselves being marginalized by other members of their own ethnic community. To carry this theory to the extremes would be to suggest that assimilation leads to marginalization. This result would be consistent with the findings of LaFramboise et. al. (1993), who concluded that assimilation would lead to the rejection by members of one's own ethnic group. As was discussed in Chapter Two, the research participants are from collectivist cultures. With collectivist cultures, communal interest is put before self-interest, unlike individualistic cultures such as the United States, which for the most part advocates a 'look after yourself attitude'. This could also be a reason for rejection by the ethnic community.

As new immigrants continue to replenish these communities and reinforce their cultural distinctiveness and values, most of the populations will remain integrated and separated as opposed to assimilated or marginalized. These findings are consistent with those of Nguyen (2006) who argues that as long as immigrant communities are reinforced by newcomers the cultural values of their origins will be maintained. Therefore, it is possible that it could take several generations, if not longer, for these immigrants to blend completely into the U.S. culture (Suárez-Orozco, 2000).

Relationship between the Type of Internet Usage and Acculturation

In this study, two predictor variables, U.S. networking, (i.e., online communication and interaction with Americans) and perceived English language competency were found to predict the two acculturation dimensions of integration and assimilation. Further, ethnic entertainment and U.S. entertainment were found to predict feelings of separation. The Internet usage predictors are discussed in this section of the chapter, while perceived English language competency is discussed in the proposed (Internet usage and acculturation path models) section.

U.S. Networking

U.S. networking using Facebook, Twitter, Google plus, LinkedIn, Email, Skype, etc., demonstrated a statistically significant association with both integration and assimilation. The findings suggest that Internet-based communications and interactions with individuals of the host society predict immigrants' integration and assimilation.

These findings are supported by numerous studies on the role of communication and acculturation (e.g., Nagata, 1969; Kwan & Shibutani, 1965; Pool, 1965; Kim, 1976, 1977) that take into consideration interpersonal, as well as mass communication, and acculturation. These scholars conclude that communication and interaction with members of the host society are the key to immigrants learning the values and norms of their new environments.

This study suggests that distance online communications and interactions over the Internet stimulate social behavior, a key factor in the acculturation of individuals and groups. This finding is in line with the finding of W. Chen (2010) who concluded

that online social communication and interaction with members of the host society facilitate immigrants' acculturation. Further, Elias & Lemish, (2009) concluded that the Internet aids immigrants in adjusting their identity to that of the host society.

It is noteworthy that U.S. networking was found to predict integration and assimilation. However, it retained the least mean-value being the least reported tool used by participants to communicate and interact with members of the host society. Yet, it had the same weight as English language proficiency in predicting integration of immigrants. While this may be because online communication and interaction with members of the host society requires proficiency in the English language, Ye (2005), studying East Asian newcomers' use of English versus ethnic language Internet, found a positive association between participants' usage of English related websites and English proficiency.

Further, W. Chen's (2010) findings revealed that the longer immigrants reside in the host country the more likely they will communicate and interact online with members of the host society, thus increasing their rate of acculturation. The findings of this study are consistent with Chen's findings. The results of this study showed strong positive correlation between length of residence in the U.S. and Internet usage. Further, the highest correlation among the four Internet usage factors and the acculturation dimensions occurred between U.S. networking, U.S. entertainment and both acculturation dimensions of integration and assimilation.

It is well documented that interpersonal communication with members of the host society can be stressful for immigrants, in general, and recent arrivals in particular.

For that reason, in their early days, weeks and months, newcomers are drawn toward stress free mass media (Kim, 1997). With mass media (e.g. television) instant feedback is absent, making it a less effective vehicle for acculturation (Kim, 1978, 1988). Given the results of this study, it can also be argued that the communication and interaction component of the Internet, especially features those with instant feedback, are essential ingredients of the acculturation process.

Ethnic Entertainment and U.S. Entertainment

This study found that both U.S. entertainment and ethnic entertainment are significant predictors of “separation”. Implied in this finding is that the usage of online U.S. entertainment, i.e., mass communication, does not support separation, while consumption of ethnic entertainment does.

This finding is in line with other studies regarding mass media and acculturation in the United States. Several studies have linked host communication media with host cultural learning and acceptance of host society cultural and social values and acculturation, while ethnic mass communication was found to aid immigrants in preserving their ethnic cultural values (e.g., Hsu, Grant, & Huang, 1993; Kim, 1979; Shiramizu, 2000, Viswanath & Arora, 2000, Kim, 1988, 1995; Moon & Park, 2007).

Findings of this study suggest that online interaction and communication with individuals of the host society influence both integration and assimilation. Further, the findings of this study are consistent with previous research findings that have supported the claim that while host society mass communications as a vehicle of host society cultural norms constitutes enormous power in the acculturation of immigrants, ethnic

mass communication may help immigrants retain the values of their culture of origin. The results of this study open the door to discussion and studies that can take place both at the conceptual and empirical levels concerning the maturing scholarship of Internet usage as a vehicle of communications and interactions in acculturation.

Relationship between the Frequency of Internet Usage and Acculturation

An important aim of this study was to explore the frequency of Internet usage and acculturation. Would a higher degree of Internet usage results in a higher attainment of acculturation i.e., integration and assimilation? Integration was found to relate to all four Internet usage factors, while assimilation was found to relate only with U.S. networking and U.S. entertainment. The highest positive significant correlations were between U.S. networking and integration and between U.S. entertainment and integration.

While these findings suggest that a high degree of U.S. networking usage is positively correlated with both integration and assimilation, integration showed the strongest correlation of the two. A higher degree in usage of ethnic networking and ethnic entertainment were also found to have significant positive correlations with integration. On the other hand, only a higher amount of U.S. networking usage, and a higher amount of U.S. entertainment usage, retained significant positive correlations with assimilation.

The results of this study are consistent with the findings of earlier studies that examined the influence of traditional media mainly television and print media. For example Kwan and Shibutani (1965) stated that immigrants' adaptation to their host

society in large part depends upon the extent of their participation in the communication channels of their host society. In this study, a higher degree of U.S. networking was particularly found to complement both integration and assimilation.

Overall, the descriptive results of this study suggest that participants' main reason for using the Internet was ethnic maintenance. However, only U.S. networking was found to complement their assimilation. More importantly, it is not only the type of communication that is influencing their acculturation; the extent to which they use the Internet as a communications and interactions tool also plays a significant role in their acculturation.

Proposed Internet Usage and Acculturation Path Models

In this section, the proposed path models of Internet usage in integration and assimilation are discussed.

Age, education obtained prior to arrival to the U.S., and number of years in the U.S. were found to have a statistically significant association with perceived English language competency; while education obtained prior to arrival to the U.S., and number of years residing in the U.S. retained statistically significant association with U.S. networking. Further, the comprehensive multiple regression analyses revealed a direct association between *duration of Internet usage in the U.S.* and *integration*, and between *perceived ethnic language competency* and *assimilation* (see Tables 17 & 18). The predictor variables that constitute the two models are discussed below.

Perceived English Language Competency

In this study, the two explanatory variables found to predict integration and assimilation are perceived English language competency and U.S. networking. However, since U.S. networking has been addressed in answering research question one, only perceived English language competency is considered for this part of the discussion.

In this study, perceived English language competency was a positive predictor of integration and assimilation. Its contribution is greater for assimilation than integration, indicating that competency in the English language may be necessary for assimilation. This is consistent with other studies (e.g., C. Kim, Laroche & Tomiuk, 2001; Kim, Laroche, & Tomiuk, 2001) which have concluded that proficiency in the host language is the prime factor that facilitates immigrants' acculturation. Gordon's (1961) study found language proficiency to be the cornerstone of the concept of the theory of assimilation. Further, Kim's (1976, 1977, 1978) extensive research of Korean immigrants residing in the Chicago area concluded that immigrants' English competency is one of the key factors that influenced their acculturation.

On the whole, scholars agree that proficiency in the host society language is a key determinant factor of acculturation (Alba & Reynolds, 2002; Brown & Bean, 2006; Bhagat & London, 1999; Jimenez & Waters, 2005). Acculturation, for the most part, is described as a behavioral competence that is influenced by factors related to culture, knowledge and social skills, making language the core of both cultural and intercultural learning (Ward & Kennedy, 1999, Searle & Ward, 1990).

Perceived English Language Competency and U.S. Networking

There are significant positive correlations between perceived English language competency and U.S. networking, indicating that these two predictor variables complement each other. The result is consistent with prior findings (e.g., Browning, Shafer, Rogers, & DeFever, 2003; Kim, 1978) which concluded that language competency determines immigrants' media communication with members of the host society. This shows that proficiency in the English language is crucial for immigrants' communication and interaction both in face-to-face and online environments.

Previous researchers have also suggested that eighty percent of the websites that exist worldwide are in English (Kuku, Orazem, & Singh, 2006); however, rapid change may well have altered this statistics. This indicates that both the interactional and informational aspect of the Internet would require to some degree proficiency in the English language. In return, these same interactional and informational factors would help immigrants to improve their English skills to an even higher degree. Ye (2005) found a direct link between the time spent by immigrants on U.S. related websites and English proficiency.

Another possible argument would be that immigrants who feel comfortable communicating and interacting with members of the host society in a face-to-face environment would be those who would communicate and interact with members of the host society in the virtual world. Yet, today it is hard to separate online from offline communication (Beneito-Montagut, 2011).

Education Completed Prior to Migration

The results of this study suggest that the highest education completed prior to arrival to the U.S. is a positive predictor of U.S. networking. Highest education completed prior to arrival to the U.S. was also a positive predictor of English language competency. This finding suggests that immigrants who arrived with sufficient skills in the English language are more likely to (a) participate in online communication and interaction with U.S. individuals, and (b) show competence in the English language.

The results of this study are consistent with studies (e.g., Chiswick & Miller, 2007; Ono & Zavodny, 2007) that have concluded that education in general and English language skills in particular are key factors regarding the rates of information technology usage. Further Nee and Sanders (2001) suggested that knowledge that immigrants arrive with plays a prime role in their incorporation into the new environment. On the other hand, Chiswick and Miller (2007) found that immigrants' Internet usage substantially declined with a decline in English language competency.

The Age Influence

Age was a negative predictor of perceived English language competency. The results of this study suggest that age accounted for approximately 9% of the variance in perceived English language competency. Further, age retained significant negative correlations with all four Internet usage factors. In short, the results of this study suggested that older immigrants were less likely to be proficient in the English language and also less likely to use the Internet.

Age at migration is considered an important indicator of acculturation. The underlying proposition is that adolescents learn language at a faster rate than adults. Therefore, almost all theories so far suggest that age is an important factor in the process of acculturation. For example, Szapocznik, Surtines, and Aranalde (1978) in "*theory and measurement of acculturation*", age was depicted as a key factor in acculturation, indicating that younger individuals acculturate at a faster rate than older adults. Similarly, scholars (e.g., Tyder, Alden, Paulhus, 2000) have suggested that almost all unidimensional acculturation models considered age at migration to be a prime indicator of acculturation. Moreover, in Koshen (2007) study of Somali immigrants, the parents stressed that due to language issues their children serve as their translators.

Just as with language, scholars have suggested that adolescent immigrants are considered to rapidly outpace adults in acquiring technology skills. For example, the Chiswick and Miller (2007) empirical investigation of computer usage by households in Australia concluded that computer-mediated skills, like language skills, are considerably easier to learn as an adolescent than as an adult.

A possible explanation is that some of the immigrants may consider themselves to be too old to participate in the virtual world. Also, Kabbar and Crump (2006) indicated that some of the older immigrants interviewed for their study ruled out participation on computer-mediated-communication citing that they are too old to acquire the skills necessary to participate in the virtual world. Therefore, the results of this study

implicated age as a deterrent factor not only in the acquisition of the English language but also Internet usage.

Length of Residency in the U.S.

In this study, length of residency in the United States predicted perceived English language competency and U.S. networking. Length of residency in the U.S. was found to be significantly associated with perceived English language competency and U.S. networking. Further, the Pearson correlations suggest significant positive correlation between length of residence in the U.S. and length of Internet usage ($r = .68, p = .000$). This indicates that the longer immigrants reside in the U.S., the more likely they are to become competent in the English language and use the Internet.

The findings of this study are considerably supported by other studies. Length of residency in the host society was found by many researchers to be the prime factor for immigrants' acculturation. The proposition is that length of residency in the host country would lead to adopting the host society language; therefore, language is the main factor by which immigrants learn about their new environment (Ward & Kennedy, 1999). Gordon (1964) conceptualized immigrants' length of residency in the host culture as the focus of his assimilation theory. Further, scholars (e.g., Greenber, 1983; Cohen, 2004) have suggested that length of residency in the host society has long been associated positively with usage of host society media.

Likewise, W. Chen (2010) concluded that the longer immigrants reside in the host country, the more likely they are to communicate and interact in the virtual world with individuals of the host society. For their part, Hwang and Zhou (1999) suggest

that immigrants who use more English-language media are found to be more acculturated than those who utilize their own ethnic media. This could well be because host media usage is often found to complement host society cultural learning, and thus better acculturation (Lee & Tse, 1994; Shah, 1991). Moreover, the convenient nature of the Internet makes it an appealing communication vehicle for immigrants (Vignovic , & Thompson, 2010). These results are consistent with the results of this study.

Duration of Internet Usage in the U.S.

Another major finding is that duration of Internet usage in general retained a significant association with integration. It is a positive predictor of integration, indicating that the longer immigrants used the Internet the better integrated they are. M. Kim (2010) contends that the Internet offers newcomers an array of information rich with cultural aspects of the host society, thus increasing the communication and interaction with members of the host society. Further, Tsai (2006) study of Taiwanese immigrants in the U.S. concluded that one of the reasons her research participants used the Internet was to bypass the distressing interpersonal communication needed in gaining information about the U.S.

However, what is more interesting is the fact that the Internet represents for immigrants far reaching informational, communication and interaction power. Nowadays, immigrants with access to the Internet can gain considerable knowledge about their host society before they are physically present in that society. This can include vital information about the receiving society's physical environment, culture, demographics, social services, and other information. All of this can be obtained prior

to migration. For example, tools like Google Earth not only show immigrants which states in the Union they would be residing in, it features 3D satellite imagery of the city streets and neighborhoods they will live in, down the street view of the house in which their family might already reside. With a click of a button, immigrants can gain considerable understanding about the landscape and features of their new home. For the process of integration to be initiated, the physical presence of immigrants in the host society may not be a prerequisite. In this study, length of Internet usage prior to migration showed significant positive correlation with integration, and a modest but positive correlation with assimilation.

The descriptive statistics of this study suggest that immigrants use the Internet more for ethnic purposes than to interact or consume host society related information. These findings are consistent with studies (e.g., X. Chen, 2004; Ye, 2005) that have shown that the Internet offers immigrants a choice in the path of integration in their host society without losing their ethnic distinctions. This is because the Internet permits close or distant social interactions (Horrigan, Wellman, & Rainie, 2006). The Internet also plays a greater role, since immigrants can still maintain the social networks that they have left behind.

Perceived Ethnic Language Competency

Perceived ethnic language competency was a negative predictor of assimilation ($\beta = -.15, p. 017$). A possible explanation is that as immigrants become assimilated to the host society culture, they would lose some or all of their cultural characteristics. This explanation is supported by assimilation theories based on the hypothesis that as

time goes by immigrants shed their ethnic characteristics and assume the cultural features of their host society (Alba, 2000; Neckermann, Carter, & Lee, 1999).

On the whole, the proposed path models provide support to the maturing body of research on the relationship between Internet-based communication and acculturation. This study also adds to the already rich interpersonal and mass communication scholarship. Most importantly, this study introduces the Horn of Africa immigrants and their causes to those concerned.

Discussion of Additional Findings

Close examination of the mean-values for the four-Internet usage factors reveal that ethnic entertainment ranked highest, followed by ethnic networking; third highest was U.S. entertainment, and finally U.S. networking. Therefore, from these descriptive findings, it can be concluded that research participants' main use of the Internet is ethnic entertainment following by ethnic networking and the least used was for the purpose of U.S. networking. Therefore, from the results of this study, one can conclude that the main purpose of Internet usage by the research subjects was to maintain ethnic identity.

I suggest several plausible explanations for these findings. First, as the research participants are from a collectivist society, the Internet is the perfect tool to keep solidarity and affinity with those left back home and in secondary countries.

Second, there is the need to maintain cultural values and ethnic characteristics through the consumption of their own ethnic related media and sustaining the

communication and interaction with individuals of their own ethnic groups back home and around the world.

Third, lack of fluency in the English language, and the absence of social networks with members of the host society, forces them to establish and increase their social networks or even create social circles in the virtual world with members of their own ethnic groups. This is especially true with recent arrivals when faced with an unknown and thus stressful environment. It would be natural for immigrants to compensate for what is missing in their new environment in these countries, and the Internet is the perfect tool in doing just that. Fourth, unlike the telephone and fax, the Internet provides a variety of communication and interaction tools that are free, which also appeals to immigrants, most of whom have limited resources.

In previous studies, the Internet has been described as a tool that complements both interpersonal and mass communication. Results of this study seem to hold some implications for previous studies. There existed three competing views for the role of ethnic mass communication in acculturation. For the most part, these studies considered only traditional media, i.e. print media, radio and television. The three viewpoints were: (a) ethnic mass communication plays the role of ethnic maintenance aiding immigrants to preserve their cultural values and characteristics (Hsu, Grant, & Huang, 1993; Kim, 1979; Shiramizu, 2000, Viswanath & Arora, 2000); (b) studies (e.g., Hur, 1981; Lee, 2004; Richmond, 1997) concluded that ethnic mass communication informs immigrants about their host society and therefore plays a role in assimilation (Hunter, 1960; Marzolf, 1979; Soter, 1924). It also plays a dual role in

that it helps immigrants preserve their cultural characteristics and introduces them to their new environment (Lee & Tse, 1994; Jeffres & Hur, 1981; Warshauer, 1966; Jeffres & Hur, 1981).

The results of this study show a significant positive correlation between ethnic networking, ethnic entertainment and integration. Since integration involves a process of participation in the host society's day-to-day activities, while maintaining their own cultural values and characteristics, in that aspect, the results of this study are consistent with the view that ethnic mass communication plays a dual role in ties to the past while helping future acculturation. However, it is reasonable to keep in mind that only communication and interaction with members of the host communities are found to predict integration and assimilation.

Implications for Future Research

The results of this study have several implications for researchers in the fields of adult education. In addition, the findings of this study also offer numerous implications for research in the field of Internet-based communications, interpersonal and mass communications, and acculturation. The study also builds on several previous studies as it emphasizes the role of Internet-based communications in acculturation.

This study indicates that English language competency and Internet-based communication and interaction are associated with and have a significant influence on acculturation. Further, the results of this study indicate the importance of being competent in the host language and the important role of the Internet as a mass and interpersonal communication tool in achieving that competency. This study has

contributed to the literature by increasing and extrapolating the knowledge and understanding of factors that influence the effective acculturation of individuals and groups.

Internet based communication and interaction is a maturing body of knowledge. However, the role of the Internet not only as a communication and interaction tool but also as an environment that shapes culture in modern society is evident. As such, the Internet is defining contemporary life (Green, 2011). In, the process, it is attracting interest from different fields of scholarship.

However, to date, there are only a few studies, most of which are masters and dissertation theses, which have presented empirical knowledge on Internet and acculturation. Most of these studies are from the field of communication. However, some evidence has been presented linking the Internet with acculturation, and most of the studies are grounded on the use-and-gratifications theory. Researchers have studied the motives for using the Internet. In the process, these scholars have identified gratification motives that explain why immigrants and international students use the Internet and which of these motives influence acculturation.

In this study, some factors of Internet-based communication and interaction were found to have an influence on acculturation of African immigrants. This study broadens the understanding of Internet-based communications and acculturation. It also contributes to the existing understanding and empirical studies in interpersonal and mass communications and acculturation.

Additionally, English language competency by far had the most significant influence on acculturation. The influence of language competency in acculturation is long known, and empirical knowledge in this area is readily available. For example (e.g., Berry, 1989; C. Kim, Laroche & Tomiuk, 2001) concluded that host language competency is the critical factor in acculturation.

The results of this study reveal that the acculturation of research participants is more in line with the dimension of separation and integration. Previous studies that were grounded in the four-fold-model of acculturation (e.g., Berry, 1984, 1986, 1990, 1992, 1997, 2003, 2006; Beiser, Dion, Gotowiec, Hyman & Vu, N., 1995; Davies, & McKelvey 1998; Farver, Bhadha, & Narang, 2002; Luque, del Carmen García Fernández, & Tejada, 2006; Van Oudenhoven, Prins, & Buunk, 1998) have suggested that the kind of immigrants seeking a home in the Western hemisphere most often choose the path of integration. With this study, however, the dimension of separation retained a higher mean-value than integration. Suárez-Orozco (2000) argued that the immigrants of today choose the path of acculturation that safeguards their racial and ethnic characteristics.

Finally, the findings of this study also have important implications for the theories of *social capital* and *social contact*. The postulation behind the concept of social capital is that individuals invest in social relations with valuable returns (Coleman, 1988; Lin, 2001; Putnman, 2000). Conceivably, the quintessential definition of social capital was put forward by Lyda Judson Hanifan in a 1916 classic piece. Hanifan discussed local support for school defined social capital this way:

I do not refer to real estate, or to personal property or to cold cash, but rather to that in life which tends to make these tangible substances count for most in the daily lives of people, namely, goodwill, fellowship, mutual sympathy and social intercourse among a group of individuals and families who make up a social unit... If he may come into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community. The community as a whole will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors. (pp. 130-131)

The above statement stresses the importance of the larger community without losing individual free choice. According to Stein (1961) “the price for maintaining a society that encourages cultural differentiation and experimentation is unquestionably the acceptance of a certain amount of disorganization on both the individual and social level” (p. 1). Although researchers from various social science fields emphasize different aspects of social capital, the general understanding is that social networks have value (Putnam, 2000).

Similarly, scholars from diverse disciplines study *social contact*. However, the core postulation behind social contact theory is that prejudice may be reduced as individuals learn more about others (Allport, 1954). According to Pettigrew and Tropp (2006) “for decades, researchers and practitioners have speculated about the potential

for intergroup contact to reduce intergroup prejudice” (p. 751). Likewise, Rothbart and John (1985) stated that people's beliefs change through contact as "an example of the general cognitive process by which attributes of category members modify category attributes" (p. 82). Since contact between individuals and group members occurs in diverse social settings, these contacts would result in modification of individuals' beliefs. The Pettigrew and Tropp (2006) meta-analysis of 713 independent samples from 515 studies concluded that “intergroup contact typically reduces intergroup prejudice” (p. 751). Therefore, since the virtual-world is now an extension of contemporary life, it is important that virtual-world communications and interactions be studied from the perspective of *social capital* and *social contact* theories.

Overall, in this study, the Internet usage factors influence acculturation, and English language competency is a key in the process of acculturation. Additionally, the directions of acculturation of the research subjects are recognized. Based on the above findings path models of Internet usage in acculturation were advanced. Therefore, this study contributed valuable knowledge and insight into our understanding of Internet usage and acculturation.

Implications for Practice

This study also presents several implications for practitioners, local and federal government agencies, educational institutions, and curriculum development. This study identified factors influencing immigrants' acculturation. Further, the study showed the acculturation path or preference of these particular immigrant populations. Chen and Choi (2011) suggested that immigrants using the Internet initiate and expand their

social networks far beyond the shores of the United States. The results of this study also suggest that Internet-based social networking with members of the host society U.S. retained almost equal influence as English language competency in their integration.

This study provides evidence for local and federal government agencies, and educational and curriculum development that immigrants' social networking on the Internet is strong. In return, this Internet-based social networking is aiding their acculturation. This can be because immigrants lack interpersonal social networks with members of the host society (Kim, 1978). Further, the findings from this study indicate that active participation on the Internet complements acculturation. This finding further strengthens the claim that the Internet should be considered a tool that can enhance the incorporation of new immigrants into their receiving environment. Therefore, local and federal government agencies, educational institutions, and other concerned parties should consider the Internet one of the factors that can aid the acculturation process of immigrants now and in the future.

English language competency is another factor in this study that is revealed to play a greater role in the acculturation of immigrants. This finding strengthens the long held hypothesis that English language competency plays the prime role in the integration process of immigrants in the U.S. society. Therefore, the results of this study should increase public understanding and inform policies concerning the resettlement of immigrants by local and federal government agencies, educational institutions and other concerned parties. Since, competency in the English language

plays a prime role in the acculturation process of immigrants, investing in immigrants' education benefits the individuals and the nation as a whole. Greenstone and Looney (2010) noted that "the most recent academic research suggests that, on average, immigrants raise the overall standard of living of American workers by boosting wages and lowering prices" (P. 5).

For the most part, the preferred acculturation path of the research sample favors both ethnic and host cultures. Therefore, there is a need for transformational policies with cognizance of cultural differences and that promote the acculturation of immigrants. Any such policies should take into consideration the realities that these immigrant populations are much more likely to retain their cultural values and characteristics for much longer period of time than previous immigrants.

The results of this study provide evidence to those concerned with the successful acculturation of immigrants from the Horn of Africa. The results should inform those concerned with the effective acculturation of the above immigrants, which the current demographic framework within which immigration to the United States occurs is very different from earlier times. Further, the results indicate that the examination of contemporary acculturation paths of immigration serves as a platform for understanding the current challenges faced by immigrants and also informs any policy decisions.

Limitations of the Study

To an extent, all research studies present their own set of limitations. Therefore, this study, too, has several limitations. Most of the limitations with this study resulted

from a dearth of literature upon which to build. Therefore, these limitations present valuable opportunities for future studies.

Some of the limitations of this study are specified in Chapter One which includes the lack of existing studies of both acculturation and the role of the Internet as a communication and interaction tool on the acculturation process of immigrants. Further, limitations of this study had to do with the scales used to collect data and the procedures which were revised after the pilot study.

When the acculturation scale was translated into the three languages of the populations under scrutiny, the Somali versions of the instrument posed two significant challenges. Somalia is a nation based on clanism, which means that each clan has its own dialect. Therefore, having an instrument that can be understood by all Somalis became next to impossible. Further, Somalia had no written language until it adopted a Somali script based on the Roman alphabet in 1972. Until then knowledge was conveyed orally. Further, this is combined with the fact that the country has been bedeviled by two decades of violent and traumatic internal conflict which has totally decimated their way of life, leaving the majority of young Somalis unschooled and even illiterate in their native language.

The above two challenges left me with no option but to abandon the Somali version of the instrument. To offset this challenge, research assistants, who spoke Somali, were employed to help with any questions the research participants may have had when filling out the survey. Further, the Somali version of the scale was used as a secondary tool, serving as a reference that participants could use when they ran into

difficulty with the English version of the scale. I was present at all times during the data collection process to answer questions in a participant's native language if needed. Further, I took the highest possible care and precaution from influencing how they responded to the survey questions.

An additional challenge associated with this study was the fact that some Somali research participants indicated that they could read and write in English better than in their own ethnic language, a clear indicator of their lack of previous formal education and most likely the result of them attending ESL classes. It didn't mean they were necessarily proficient in English, just more so in English than in written Somali.

Although, the Internet usage scale used in this study is treated as an interval scale, it was actually more or less an ordinal scale. However, to establish factor structure and internal reliability of the items that makes up this scale, exploratory factor analysis was conducted. Further, confirmatory factor analysis was conducted to verify the relationship between observed variables and their underlying latent constructs. The internal reliability and underlying latent constructs of the scale were confirmed. Nonetheless, this is also one of the limitations of this study.

This research study was based on a self-reported survey. With survey based data, there is the chance of research participants misinterpreting or even deliberately answering questions falsely. Further, response bias and memory lapses, differences in individual motivation, and the knowledge of research participants are all considered limitations of survey based research (Schneider, Ashworth, Higgs, & Carr, 1996).

Finally, it should be noted that the overall usage of the Internet by these immigrant groups in this study was relatively low (see Appendix E). This could be a function of the lack of English proficiency of participants or possibly a lack of Internet access. More research needs to be done on this relationship. This is one of the limitations of this study.

Recommendations for Future Research

First, Internet-based communications and interactions research is very much in its infancy. Further, integrating Internet-based communication and acculturation is an even more evolving research avenue. Therefore, as the main purpose of this research study was to explore the influence of Internet usage in acculturation, the results have provided some foundation for future research.

Additionally, as has been mentioned throughout, there is a dearth of studies concerning the acculturation process of African immigrants in general and the Horn of Africa immigrants in particular. As research on the Internet is still in early maturation, its influence on the acculturation process of immigrants for the most part is largely unknown. Therefore, this study provides the groundwork for both the acculturation process of immigrants from the Horn of Africa, and the influence of the Internet on the acculturation process of immigrants in general and immigrants coming from the Horn of Africa in particular.

This study has analyzed numerous factors related to both Internet-based communications and interactions, and acculturation. It is imperative that future studies in the acculturation experiences of Africans in general and the Horn of Africa

immigrants in particular be undertaken, and future research should focus on the features of the Internet that stimulate social networking and social circles and their influence on acculturation. It is also important that future studies replicate and build upon the findings of this study. It is equally important that future research consider other antecedents of the Internet that may hold possible influence on the acculturation process of immigrants.

Past researchers, e.g., Barnett and Lee (2002) have contended that with the advancement in information technologies most of the intercultural experiences would be mediated rather than face-to-face. Recent scholars (e.g. Chen & Choi, 2011; Vignovic, & Thompson, 2010) have argued that the Internet has become the vehicle of cross-cultural interactions and for immigrants this virtual world has become an environment in which they can establish and increase their social networks. Therefore, it is essential that the influence of the Internet as a communication and interaction tool in a more or less virtual world where immigrants stimulate and expand their social networking, and be scrutinized from the perspectives of different disciplines, e.g., anthropology, sociology, psychology, communications, education, health, among others.

Further, as this study looked only into the sociological aspect of acculturation, it is imperative that the influence of Internet usage on these particular immigrant populations be investigated from the concept of psychological acculturation. This is especially important when there exists a competing view within the scholarship that is concerned with the acculturation of newcomers. This view advocates that immigrants'

maintenance of their connections with their country of origin plays a greater role in their psychological acculturation. The findings of this study revealed that the studied sample was found to use the Internet more for ethnic maintenance than to communicate with Americans or consume American related information.

Equally, it is important that future research focus and build on the findings of this study directing particular attention to the acculturation experiences or path of these particular immigrant populations. This is because, any study in this area would have significant impact to immigrants in need of acculturation, “and the policy-makers, in the capacity of helping the immigrants adapt to the country faster and with less painful experiences” (Chen, Siu Kay, 2011). Further, this research encompassed three ethnic groups; future research should also look to into the acculturation experiences of these ethnic groups separately. Likewise, future researchers should examine the acculturation path of the research subjects, i.e., immigrants, refugees and asylees separately, as their acculturation patterns could differ as it was indicated in the literature review. Also, future research studies should build on and expand the proposed path models of Internet usage in acculturation. This study was initiated to investigate the influence of Internet usage on acculturation; the results of this study have laid down valuable foundations for future academic research studies.

Concluding Thoughts

In this study, I have examined the relationships between Internet usage and acculturation of the Horn of Africa immigrants in Minnesota. The main predictor variables assessed to predict acculturation were the four Internet usage factors,

perceived English language competency, and other demographic variables. As a result, I have presented some significant findings that affect the acculturation of the Horn of Africa immigrants. In particular are Internet usage items related to communication and interaction with members of the host society that were found to predict acculturation. Further, significant correlations were found between occurrence of Internet usage and acculturation.

Additionally, building on previous findings, perceived English language competency was found to predict acculturation. In contrast to most previous studies, and the acculturation theory that framed this study, which posits that when immigrants are faced with a new environment they usually choose integration over other acculturation dimensions, the results of this study suggest otherwise. The results of this study to some extent suggest that research participants preferred separation over integration. However, this may well be because those who have participated in this study are more recent arrivals.

The concepts of interpersonal and mass communications posit that both host and ethnic communication stimulate acculturation. For the most part, this postulation was supported. Although the findings of this study revealed that the studied sample used the Internet more for ethnic maintenance than for communication and interaction with members of U.S. or for consumption of U.S. related information, I found that only communication with U.S. individuals predicted their assimilation. There were also significant correlations between ethnic networking, ethnic entertainment and

integration. Finally, by scrutinizing the particular contribution of the predictor variables, I have proposed path models of Internet usage in acculturation.

Also, this study has contributed to knowledge of acculturation in the Internet usage environment. The results of this study reveal the importance of the Internet as a communication and interaction tool in the acculturation process of immigrants. Further, this study has laid the groundwork for future research on Internet usage and acculturation and the acculturation experience of these particular research populations. In addition, the findings of this study lead to the recognition of Internet usage models in acculturation that will further add value to existing knowledge and guidance of future studies.

Finally, though the results of this study clearly delineate the influence of Internet usage in acculturation, the influence of Internet usage, especially in assimilation, was not as strong as English language competency. Therefore, there is a need by future studies to scrutinize Internet usage, paying special attentions to frequency and type of usage.

On a personal note, any study that helps to broaden and deepen knowledge in our society on the acculturation process of individuals and groups is extremely important. It is my hope that studies of this nature will have a positive influence on society as a whole, and lawmakers in particular, so that immigrants can be integrated effectively into their new society with optimal human welfare and happiness.

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Appendices

Appendix A

Internet Usage Scale

These questions are about your Internet usage. Please answer each question as accurately as you can.

1. Do you use the Internet?
 - a) Yes If “yes” continue to **Question 2** below.
 - b) No If “no” go to **page 2**.
2. How long did you use the Internet before coming to the U.S.? _____ (years)
3. How long have you used the Internet (in the U.S.)? _____ (years)

Directions: Please indicate if you use the following Internet tools to interact with “ Americans ” (those born in U.S.). For each question, circle the response that best describes your Internet usage.					
<i>How often do you:</i>		Not at all	Monthly	Weekly	Daily
4.	Use Facebook/ Twitter/ Google plus or other social networking sites?	0	1	2	3
5.	Interact on LinkedIn and other job related websites?	0	1	2	3
6.	Correspond by Email?	0	1	2	3
7.	Communicate using Skype?	0	1	2	3
8.	Visit or surf American news websites?	0	1	2	3
9.	Download or listen to American music?	0	1	2	3
10.	View videos, or watch online American television?	0	1	2	3

Directions: Please indicate if you use the following Internet tools to interact with “ people of your own ethnic group ” <u>here in the U.S, back home, and around the world</u> . For each question, circle the response that best describes your Internet usage.					
<i>How often do you:</i>		Not at all	Monthly	Weekly	Daily
11.	Use Facebook/ Twitter/ Google plus or other social networking sites?	0	1	2	3
12.	Interact on LinkedIn and other job related websites?	0	1	2	3
13.	Correspond by Email?	0	1	2	3
14.	Communicate using Skype?	0	1	2	3
15.	Visit or surf your own ethnic news websites?	0	1	2	3
16.	Download or listen to your ethnic music?	0	1	2	3
17.	View videos, or watch online your own ethnic television?	0	1	2	3

Appendix B

Acculturation Scale

Directions: Please indicate how strongly you agree or disagree with the following statements by selecting: (1) for “ Strongly Disagree ”, (2) “ Disagree ”, (3) “ Agree ”, and (4) “ Strongly Agree ”.					
		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	I write better in English than in my native language.	1	2	3	4
2.	Most of the music I listen to is my native music.	1	2	3	4
3.	I tell jokes in English and in my native language.	1	2	3	4
4.	Generally, I find it difficult to socialize with people, (both American and people from my native country).	1	2	3	4
5.	For the most part when I am in my home, I speak English rather than my native language.	1	2	3	4
6.	My closest friends are from my own Ethnic group.	1	2	3	4
7.	I think as well in English as I do in my native language.	1	2	3	4
8.	I sometimes feel that neither Americans nor people from my native country like me.	1	2	3	4
9.	If I were asked to write poetry, I would prefer to write it in English.	1	2	3	4
10.	I prefer going to social gatherings where most of the people are from my native country.	1	2	3	4
11.	I have friends, both American and people from my native country.	1	2	3	4
12.	There are times when I think no one understands me.	1	2	3	4
13.	I get along better with Americans than people from my native country.	1	2	3	4
14.	I feel that people from my native country treat me as an equal more so than Americans do.	1	2	3	4

		Strongly Disagree	Disagree	Agree	Strongly Agree
15.	I feel that both people from my native Country and Americans value me.	1	2	3	4
16.	I sometimes find it hard to communicate with people in general.	1	2	3	4
17.	I feel that Americans understand me better than people from my native country.	1	2	3	4
18.	I would prefer to go out on a date with people from my native country than with Americans.	1	2	3	4
19.	I feel very comfortable around both Americans and people from my native country.	1	2	3	4
20.	I sometimes find it hard to make friends.	1	2	3	4
21.	I find it easier to communicate my feelings to Americans than to people from my native country.	1	2	3	4
22.	I feel more relaxed when I am with a person from my native country than when I am with an American.	1	2	3	4
23.	Sometimes I feel people from my native country and Americans do not accept me.	1	2	3	4
24.	I feel more comfortable socializing with Americans than I do with people from my native country.	1	2	3	4
25.	People from my ethnic group should not date people who are not from our ethnic group.	1	2	3	4
26.	Sometimes I find it hard to trust both Americans and people from my native country.	1	2	3	4
27.	Most of my friends at work/school are Americans.	1	2	3	4
28.	I find that people from my native country and Americans often have difficulty understanding me.	1	2	3	4
29.	I find that I do not feel comfortable when I am with other people.	1	2	3	4

Appendix C

Perceived Language Competency Scale

Directions: Please indicate your perceived language competency by selecting (1) for “ Poor ”, (2) “ Fair ”, (3) “ Good ”, and (4) “ Excellent ”.					
		Poor	Fair	Good	Excellent
1	What is your ability to read <u>English</u> ?	1	2	3	4
2	What is your ability to write <u>English</u> ?	1	2	3	4
3	What is your ability to understand spoken <u>English</u> ?	1	2	3	4
4	What is your ability to read in your <u>native language</u> ?	1	2	3	4
5	What is your ability to write in your <u>native language</u> ?	1	2	3	4

Appendix D

Demographic Background Information

Please answer the following questions about yourself by selecting the option that best describes you.

1. What is your gender? Male Female
2. What is your background? **(Please check “✓”one)**
 - a) Eritrean
 - b) Ethiopian
 - c) Somali
 - d) Other (please write in) _____
3. Are you an:
 - a) Immigrant
 - b) Refugee
 - c) Asylee (asylum seeker)
4. What is your age? _____
5. For approximately how many years have lived in the United States?
Years, _____
6. What is the highest level of education you have completed before you came to the U.S.? **(Please check “✓”one)**
 - a) No formal education
 - b) Less than high school
 - c) High school diploma
 - d) College certificate/diploma
 - e) Bachelor’s degree
 - f) Master’s degree
 - g) Doctoral degree
7. What education have you completed in the U.S.? **(Please check “✓” all that apply)**

ESL	<input type="checkbox"/>	College certificate	<input type="checkbox"/>
ABE	<input type="checkbox"/>	Bachelor’s degree	<input type="checkbox"/>
High school diploma or GED	<input type="checkbox"/>		

Appendix E

Internet Usage Frequencies ($N=292$)

Items	Frequency			
	Not at all	Monthly	Weekly	Daily
Directions: Please indicate if you use the following Internet tools to interact with “ Americans ” (those born in U.S.). For each question, circle the response that best describes your Internet usage.				
<i>How often do you:</i>				
1 Use Facebook/ Twitter/Google plus or other social networking sites?	196	27	32	37
2 Interact on LinkedIn and other job related websites?	197	50	25	20
3 Correspond by Email?	165	65	33	29
4 Communicate using Skype?	239	25	19	9
5 Visit or surf American news websites?	121	48	64	59
6 Download or listen to American music?	165	36	47	44
7 View videos, or watch online American television?	137	39	54	62
Directions: Please indicate if you use the following Internet tools to interact with “ people of your own ethnic group ” here in the U.S, back home, and around the world. For each question, circle the response that best describes your Internet usage.				
<i>How often do you:</i>				
8 Use Facebook/ Twitter/Google plus or other social networking sites?	88	46	66	92
9 Correspond by Email?	95	61	91	45
10 Communicate using Skype?	158	48	54	32
11 Visit or surf your own ethnic news websites?	70	43	77	102
12 Download or listen to your ethnic music?	94	37	71	90
13 View videos, or watch online your own ethnic television?	81	47	81	83

Appendix F

IRB Approval

UNIVERSITY OF MINNESOTA

*Twin Cities Campus**Human Research Protection Program
Office of the Vice President for Research**D528 Mayo Memorial Building
420 Delaware Street S.E.
MMC 820
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December 18, 2012

Daniel Woldeab
College of Education/Huma3171A
Room 107 BuH
178 Pillsbury Dr SE
Minneapolis, MN 55455

RE: "The Relationships between Internet usage and Acculturation of the Horn of Africa Immigrants in the United States"
IRB Code Number: 1201P08944

This letter replaces IRB correspondence dated February 10, 2012.

Dear Mr. Woldeab:

The Institutional Review Board (IRB) received your response to its stipulations. Since this information satisfies the federal criteria for approval at 45CFR46.111 and the requirements set by the IRB, final approval for the project is noted in our files. Upon receipt of this letter, you may begin your research.

This approval is based on the understanding that letters of approval from each site will be submitted to the IRB prior to implanting the study at that site.

IRB approval of this study includes the consent form outlined in item 10.2 of the IRB application.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 300 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

For your records and for grant certification purposes, the approval date for the

referenced project is February 9, 2012 and the Assurance of Compliance number is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003). Research projects are subject to continuing review and renewal; approval will expire one year from that date. You will receive a report from two months before the expiration date. If you would like us to send certification of approval to a funding agency, please tell us the name and address of your contact person at the agency.

As Principal Investigator of this project, you are required by federal regulations to inform the IRB of any proposed changes in your research that will affect human subjects. Changes should not be initiated until written IRB approval is received. Unanticipated problems or serious unexpected adverse events should be reported to the IRB as they occur.

The IRB wishes you success with this research. If you have questions, please call the IRB office at 612-626-5654.

Sincerely,



Christina Dobrovolny, CIP
Research Compliance Supervisor
CC: Rosemarie Park