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Factors Influencing Students' Choice of an Institution of Higher Education

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FACTORS INFLUENCING STUDENTS' CHOICE OF AN
INSTITUTION OF HIGHER EDUCATION

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Educational Leadership

by
Michael B. Moody
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Accepted by:
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ABSTRACT

This study examined the following research question: What factors influence student college selection process? The study sought to fill an existing gap in the literature by examining what role technology and other relevant factors have on students' decision-making as related to college choice. By identifying influencers of college choice, the study's findings can add to the body of knowledge that admission counselors might use as they develop an appropriate recruiting mix of strategies best suited for today's college applicants.

As the theoretical framework, this research drew on the previous work of Hamrick & Hossler (1996) which combined constructs of both economic and sociologic perspectives with college choice. Additionally, an adaptation of the Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh, Morris, & Davis, 2003) was created with key constructs such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. In addition, the adapted model incorporated two sets of moderators (University Attributes and Individual Attributes) that were hypothesized to influence university or college choice. Socio-demographic information was also collected to better understand how students are being recruited and what methods they perceive as most effective.

A convenience sample of students from the freshman class at a major research university in the Southeast were surveyed. Approximately 750 students were selected to receive the main survey, selected with the help of university advisement personnel and university faculty in identifying possible classes to participate. The survey was

distributed by e-mail. Over the course of a two-month period, 427 students responded, with 341 surveys completed. Usable surveys were analyzed using the SPSS 25 statistical package.

From the data analyzed via multiple regression, Performance Expectancy and Facilitating Conditions were found to be statistically significant whereas Effort Expectancy and Social Influence were found to be insignificant. Individual Attributes as a moderating factor within the model was found to be insignificant. University attributes as a moderating factor within the model was found to be partially confirmed, as only the relationship between social influence (SI) and school of choice behavior (B) was significant, whereas the other hypothesized paths were insignificant. Socio-demographic information from the survey suggested that students were being recruited via email most often, with mail and brochure usage also noted. Social media platforms such as Instagram and Facebook were found to be highly used by students but were not effective recruiting tools.

The results suggest that performance expectancy and facilitating conditions such as classrooms, athletic facilities, and academic reputation have a significant and positive relationship with behavior (school choice). Conversely, effort expectancy and social influence did not have a significant direct relationship with school of choice behavior. As technology continues to evolve and become a more pervasive influence on students, colleges need to explore if social media might be a useful recruitment tool. The data from this study adds to the body of literature on economic and status-based factors related to school of choice by including the role of technology.

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CHAPTER I

INTRODUCTION

The process of choosing an institution of higher education includes several factors that are influential in decision-making. Many of these factors have been studied by a number of key researchers including: Hossler & Gallagher (1987), who developed a three-stage model related to college choice; Toma & Cross (1998), who researched factors related to athletes' college choice; Perna & Titus (2005), who reported on gender, race, and ethnic factors; Cabrera & La Nasa (2000), who studied parental influence, financial considerations, and students' academic ability; Furakawa (2011), who reported on influencers for high-achieving students including parental education, peer groups, amount of financial aid, and institutional fit; and Delisle & Dancy (2016), who researched the impact of state subsidies in the form of financial aid. McManus, Haddock-Fraser & Rands (2017) reported on the need to understand how prospective students make decisions relative to attending higher education institutions.

My study will expand the knowledge base related to factors that have been previously reported and will fill an existing gap by focusing on college choice and the influence of technology. The data from this study will be of value to college admissions counselors and will help them improve their strategies for influencing students' choice when selecting an institution of higher education. This study will examine the research question: ***What factors influence students' college selection process?***

The increasing pressure to earn a college degree has resulted in the projected enrollment of approximately 17.4 million undergraduate students by 2027 in all

postsecondary, degree-granting institutions (Hussar & Bailey, 2019). Lederman (2014) reported that Federal projections predict a steady increase in college enrollment rising by 14% through 2022. All these students are faced with selecting the best institution to attend as colleges and universities are vigorously competing to attract students to their campuses. Elliot & Healy (2001) reported, "In today's competitive environment, a university must identify what is important to students, inform students that they intend to deliver what is important to them, then deliver what they promise" (p. 2). As colleges and universities compete for eligible students, the role of technology such as social media has become an important consideration in the recruiting mix in addition to more traditional strategies. Ruffalo, Noel Levitz (2017) reported that many institutions are now using technology, primarily social media, to stay in touch with potential students via phone, e-mail, text messages, and Facebook.

Finances and Admissions

Institutions of higher education are spending significant sums of money to entice students to choose their college or university, and many need to refine their strategies and focus on the most successful techniques (Capraro, Patrick, & Wilson, 2004). College and university admission administrators are faced with determining which factors influence students' choices, which strategies they can employ to attract students, and at the same time, determine how resources should be allocated. Johnston (2010) stated that universities face the challenge of attracting good students to enroll each year, while they compete with other universities and colleges. Institutional budgets have been cut in recent years thus increasing the importance of target marketing and recruitment efforts.

Higher education institutions are changing their business models to compensate for increased costs with fewer students able to pay the price of tuition (Lapovsky, 2018). United States institutions of higher education are competing vigorously to secure resources and enroll enough students as tuition at public universities has risen 62% over the past ten years and 54% at private institutions (Lapovsky, 2018).

As operating costs continue to increase and students are faced with rising tuition that impacts their college choice, strategic methods of attracting students and influencing their decisions become more important. My study will assist admission counselors in identifying factors that influence college choice and devising strategies that include available technology such as social media that could potentially influence more students to choose their institutions.

<u>Need for a Systematic Plan of Recruitment</u>

Many institutions of higher education are simply modifying their recruitment plans instead of designing a systematic strategy. Chapman (2016) posited that many colleges have operated under the assumption that they can affect students' choice by simply modifying their institutional descriptions or by better targeting their recruitment strategies. Reporting further, Chapman (2016) concluded that few admission officers are operating from a systematic plan based on the influences on student college choice. By lacking such a plan, according to Chapman (2016), colleges may make mistakes in their recruitment processes including overlooking ways to increase effectiveness or overestimating the viability of activities in which they have engaged. When recruiting international students, universities need to employ a systematic plan in which they use a

personal approach which involves all the stakeholders (Ozturgut, 2013). The previous statements explain why understanding the factors that impact college choice matter and why targeted recruitment using those means identified as most successful is important.

Because many institutions of higher education are operating without a systematic plan, according to Chapman (2016), these institutions could benefit from knowing which factors and strategies most impact students' decisions relative to college choice. My study adds clarification for admissions counselors on what methods are most relevant for students who are making their college of choice decision. With this knowledge, admissions counselors should be able to better develop a plan that is more systematic, as well as a marketing mix that includes technology such as social media. Because social media is the primary focus of technology in this study, a significant amount of content, particularly in the literature review, will be devoted to the importance of including social media in institutions' recruiting strategies as part of their technological outreach to applicants.

Social Media Usage

Information technology and near ubiquity of the Internet have created new and different modes of communication in which social media plays a prominent role (Gupta, et al., 2015). The increased use of social media has had implications across many disciplines and institutions including higher education recruiting. Reporting a nearly ten-fold increase in usage during the past decade, Perrin (2015) stated that young adults are most likely to use social media with 90% now actively engaged. This number compares with 12% in 2005 which shows a 78% increase in just ten years. Interestingly, Perrin

(2015) also reported that young adults' parents registered a 69% increase in social media usage during the same time. Perrin (2015) stated that only eight percent of men and six percent of women used social media in 2005; by 2015 those numbers had increased to 68% of women and 62% of men.

Social media usage appears to be impacted by socio-economic factors. Perrin (2015) reported that 78% of those living in the highest-income households use social media, while only 56% report usage in lower-income households. The same report indicated that social media usage among whites, African Americans, and Hispanics is about the same (56%) indicating that race is not a big factor in using social media platforms.

In a follow-up study for the Pew Research Center, Smith and Anderson (2018) stated that a majority of Americans use Facebook and YouTube, but Snapchat and Twitter are the platforms used heavily by young adults. Smith & Anderson (2018) also reported that 78% of 18- to 24-year-olds use Snapchat with many visiting this site numerous times daily, while 71% use Instagram. Users of these platforms report that they visit these sites several times a day. This usage is relevant to the study conducted as it may be relevant to admission personnel who are trying to gain the attention of this age group.

The fact that Generation Z is using technology such as social media platforms to gather a great deal of their information indicates that they are likely to use these same means to review colleges in which they are interested. This relates to my study because

my research will study how potential students use technology via social media to review college sites.

Generation Z

Generation Z, the group of students born in 1993 to 2005, according to a 2010 Pew Research study, is the current cohort of students who must make college choice decisions. Trevino (2018) posited that as a result of their childhood, Generation Z became self-sufficient and independent. Because Generation Z members were raised in an era of financial, family, and societal insecurities, they became much more independent and individualistic as Sessa, Kabacoff, Deal, & Brown (2007) demonstrated. Seemiller & Grace (2016) reported that this generation is rapidly replacing Millennials on college campuses. As characterized by Seemiller & Grace (2017), these Digital Natives desire an education that prepares them for a meaningful career. "Generation Z is entering college with a set of different expectations than their predecessors, and it will be important for university administrators to understand this generation in order to attract and retain them" (Trevino, 2018).

Generation Z commands attention through the sheer size of their cohort so their numbers are important to college recruiters. Williams (2015) reported that this group has 60 million, native-born American members, one million more than the Millennial Generation which preceded it. Generation Z makes up 25% of the United States population, making them a larger cohort than the Baby Boomers or Millennials who proceeded them (Forbes, 2015).

Technology is one of the cornerstones of the lives of this generation, and they regard technology as indispensable (Berkup, 2014). This is a generation that is technology efficient according to Mastroianni (2016) who reported that Generation Z is the most web-savvy, app-friendly generation and that they are shaping technology in very different ways from the Millennials who preceded them. Generation Z has had access to unlimited information, allowing them to easily locate information, watch videos, and communicate with others. They were born into a society that is connected by smartphones, tablets, computers, and online services.

Members of Generation Z have always been immersed in technology using mobile devices as their primary means of communicating (Dimock, 2019). Further, they are more technology savvy than previous generations, which makes them ideal candidates for social media recruiting by colleges and universities as evidenced by Williams (2015) who reported, "Generation Z is the first generation to be raised in the era of smartphones. Many do not remember a time before social media" (p. 7). Hannah Payne, an 18-year old U.C.L.A. student and lifestyle blogger told Williams, (2015), "I can almost simultaneously create a document, edit it, post a photo on Instagram and talk on the phone, all from the user-friendly interface of my iPhone" (p. 7).

My current study is focused on decision-making as it relates to college choice of freshmen students from Generation Z, the group born in 1993 or later; therefore, it is important to understand how they think and make decisions. Generation Z is unlike any group that has preceded them—in their thinking, technological ability, compassion or understanding of cultures (Seemiller & Grace, 2016). Trevino (2018) reported that when

Generation Z encounters a problem, they seek solutions, and they know how to use their tools to make a decision. Seemiller and Grace (2016) posited, "So if it is not the diversity around them that accounts solely for their open-mindedness, it is the exposure to new ways of thinking and being prevalent in their news and social media that help them see perspectives other than their own" (p. 10).

Their link to technology is inherent in the way they think and make decisions. (Wood, 2018). According to Scott (2016), "They gobble up information quickly and are ready to move on to the next thing in an eye blink. When it comes to Gen Z, seconds count." Williams (2015) wrote, "Generation Z takes in information instantaneously and loses interest just as fast" (p. 7). Innovation is required to connect with this generation (Wood, 2018). They tend to prefer anonymous social media platforms like Snapchat over Facebook, for example, which leaves permanent records which be identified later (Scott, 2016).

Generation Z has grown up during the greatest period of technological advancements and change in history. Matthews (2018) reported that this generation has $140 billion in spending power, and they are poised to transform the tech world. For this generation, technology is a major part of their social interaction with friends and family. The previous facts point to the need for college admission professionals to view Generation Z through a different lens than generations of the past. By 2020, it is estimated that Generation Z will make up 40 percent of the United States population.

Generation Z students are characterized as very open to accessing information online and preferring to use social media platforms to gain advice (Harith, 2018).

Seemiller & Grace, (2016) reported that Generation Z's preferred form of social media for accessing new information is YouTube, and Rogers (2017) posited that a majority of students employ social media to research colleges and universities. In addition to the known influencers of family, guidance counselors, and peers, social media appears to be a major opportunity for higher education institutions to influence potential students. This study of Generation Z, their devotion to technology, and the factors that influence their decisions about college of choice constitute the focus of this study that should be of value and interest to college recruiters.

Background of the Study

The methods used by higher education institutions for recruiting college students appear to be changing with predictions that their digital marketing emphases will increase (Ruffalo Noel Levitz, 2018, p. 10). The old ways of bombarding students with a steady stream of brochures and marketing pitches have become less and less successful and were even considered annoying by some students (Schmoke, 2014). Regardless, "61 percent of public institutions and 55 percent of private institutions said their allocations for traditional marketing would remain the same" (Ruffalo Noel Levitz, 2018, p. 10), indicating that traditional marketing techniques such as brochures, mail, postcards or campus visits are still being used. On the other hand, 60-70% of campuses reported that digital marketing would increase; both private and public institutions reported that digital marketing received the largest increase in budget allocations for the coming 12-14 months (p. 10). Schmoke (2014) cited three major factors in recruiting students today: digital marketing, social media, and unique attributes of the college or university.

College-bound students are using a much wider range of online tools, websites, and technologies to search for information and to engage with universities and colleges. Information technology, especially social media, is ubiquitous among potential college students and should be incorporated into the marketing mix that is aimed at recruiting Generation Z.

As students narrow their university or college options, they are influenced by a variety of resources. In addition to the traditional recruiting methods and materials noted above, today's students are greatly influenced by the ever-present and pervasive technology such as mobile devices and information they download using social media (Chegg, 2015). The majority of potential first-year college students are now researching universities using social media and mobile devices as major components of their investigative efforts related to college choice (Chegg, 2015).

Because of current students' significant interest in social media and their dedication to mobile devices and other technologies, university and college admissions administrators find it essential to consider new strategies in addition to traditional recruiting methods that are designed to reach and attract potential students. Admissions administrators need to understand how high school seniors gather information and make college choice decisions and, therefore, must understand which factors influence them most (Adams, Kellogg, & Schroeder, 1976).

Factors influencing high school seniors' college selection processes and decision-making are numerous and complex. Some of the factors reported included the following: (a) demographic influences, (b) social influences, and (c) institutional influences (Cabrera

& La Nasa, 2000; Kim, 2004; Shank & Beasley, 1998). Hamrick & Hossler (1996) studied information-gathering techniques and discussed the need for more focus on information. They wrote, "The impact of information on student college choice is one variable that has received little attention because it does not easily conform to sociological or economic theories," (Hamrick & Hossler, 1996, p. 179). Furakawa (2011) reported that some highly accomplished students may consider such moderators as the reputation of the institution and faculty, the ranking of the programs in which they are interested, and the amount of financial support offered.

Some students are influenced by rankings from *U. S. News and World Report* because institutions that rank high are considered prestigious (Broekemier & Seshadri (2000). More affluent students whose family income is high, who have highly educated parents, and who have traveled extensively are more likely to choose an out-of-state institution (Delisle & Dancy, 2016). In a study that used a sample of nearly one million students, Mattern & Wyatt (2009) reported that parental education and family income impact the distance students are willing and able to travel to a selected institution. For example, students whose fathers completed only grammar school were likely to travel less than 37 miles, but if their fathers had a graduate degree, the average rose to 185 miles. Similarly, family income impacted the ability and desire to travel longer distances. Mattern & Wyatt (2009) posited that students whose parental income was low traveled only 43 miles while students with parental income of $200,000 or more traveled an average of 258 miles.

Broekemier & Seshadri (2000) reported that other students may be influenced by legacy admission status, location of the institution, proximity of the institution, socio-economic status, peer or parent influence, advice from school counselors, or successful athletic programs. Hamrick & Hossler (1996) suggested a combination of socioeconomic and parental support factors as key to influencing college choice-decisions. Shank & Beasley (1998) stated that gender is a strong factor on the decision process. For example, men may be more influenced by athletic offerings, while women may be more interested in campus safety and diversity (Hayes, Walker, & Trebbi, 1995). Race and socio-economic factors may influence students' choice of institution based on financial need and access to financial aid (Cabrera & La Nasa, 2000; Kim, 2004; & St. John, 1999).

The most significant social influencers include (a) parents, (b) guidance counselors, teachers, and friends, (c) reputation of the institution, and (d) collegiate athletics (Choy & Ottinger, 1998; Cabrera & La Nasa, 2000; Toma & Cross, 1998; Cabrera and La Nasa, 2000) reported on the influence of parents, siblings and information stating, "Parental encouragement, a pivotal force in the emergence of occupational and educational aspirations, is conditioned by the ability and high school preparation of the child, parental and sibling educational attainment, and access to information about college and costs" (p. 1). A plethora of factors go into the mix of college choice; now added to that list is the recent impact of technology and the information students can access using technological devices. In his study on college choice factors, O'Neil (2013) stated, "Having knowledge of the factors that influence

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students' decisions to enroll provides institutions with a better understanding of how to influence prospective students to enroll at their institution" (p. 1).

As documented above, there are many factors that influence students' choice of institution. My study adds additional information relative to the decision-making process, especially as it relates to technology. University admission officers should use the information in my study to make better decisions regarding recruitment materials, both traditional and technological, which they employ in recruiting students.

<u>The Changing Recruitment Landscape—</u>
<u>The Role of Technology and Social Media</u>

Using technology, specifically social media, combined with other strategic marketing practices, should enable investigators to reach a more expansive and diverse community of potential students who belong to Generation Z (Gupta, et al, 2015). Social media is now a global phenomenon with multiple platforms that is continuing to change and expand; its definition continues to evolve as well. Davis, Deil-Amen, Rios-Aguilar, & Canche (2015) defined social media as "web-based and mobile applications that allow individuals and organizations to create, engage, and share new user-generated or existing content, in digital environments through multi-way communication" (p. 1). Social media, defined by Cohen (2011) is "a collection of online platforms and tools that people use to share content, profiles, opinions, insights, experiences, perspectives and media itself, facilitating conversations and interactions online between groups of people" (p. 3). Social media, then, is an umbrella of technologies and platforms that are used to network, create and generate content, share ideas, glean information, and interact socially.

Recruiting for higher education via the use of traditional methods such as brochures, letters, campus tours is well documented, but it appears that technology platforms such as social media have the potential to play an increasingly prominent role in attracting students and influencing their decisions to enroll. Davis, Deil-Amen, Rios-Aguilar, & Gonzalez-Canche (2015) stated, "Ninety-one percent of mobile users access social media for 2.7 hours per day" (p. 20). University admissions and recruiting offices must determine how print, web, and other media most effectively reach the Gen Z generation that is so technology adept and social media savvy.

Many universities are using social media platforms such as Facebook, Instagram, Snapchat, Twitter, and others to convey information to potential students. For example, some university admission counselors communicate with potential students prior to their enrollment using social media (Karcher, 2011). Some universities have mastered the incorporation of social media as one of their primary recruiting techniques, while others still struggle with finding the right mix. Most universities still rely to some extent on traditional methods of recruiting including face-to-face meetings, print media, campus tours and other means (Steger, 2005).

While admissions programs are engaging on social media to recruit student, there is a dearth of research about the role that social media and other technologies play on college student choice in selecting an institution. The current study focuses on the impact of technology and social media have on students' choices compared to traditional methods when selecting a university in which to enroll. This work not only provides information about current student use of technology in decision-making but identifies

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further areas of research needed to fully understand the role of technology in student decision-making.

Over the past decade, technology has become central to people developing relationships, marketing products and services, building connections, and participating in online communities. These communication technologies have moved from being the toys of tech-savvy geeks into mainstream and common usage (Alkhas, 2011). While the Internet and email made drastic inroads into the way we communicate, technological inventions of social media interfaces such as Facebook, MySpace, Friendster, LinkedIn, YouTube, Twitter, Snapchat and other similar applications unleashed a massive explosion of the now-pervasive online connectivity in our everyday lives (Davis et al. 2015). Small & Vorgan (2008) reported that the high-tech revolution is changing how we interact with each other, how we influence people, how we launch political and social change, and how we maintain connection to people's private lives.

Because technology such as social media plays an increased role in students' lives, my study was designed to understand the role technology and social media play specifically in selecting a college or university. College and university recruitment techniques should connect with students and increase their interest in an institution. My study will provide additional information about how students use technology and social media to choose colleges and universities.

Social Media's Role in Students' Lives

Social media has become a powerful influence as a college recruiting tool and is changing how potential college students research and select universities. Perhaps no

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group of people has embraced technology and social media as much as today's students have. These young people—often referred to as "digital natives" and/or Generation Z (Yakel, Conway, Hedstrom, & Wallace, 2011) have been born into a technological world that includes cell phones, laptops, instant photos, texting, tweeting, virtual reality, augmented reality, and more. They spend hours every day using and interacting with digital technology. Because of the ubiquitous use of technology and social media by this generation of students, certain platforms have redefined how universities and colleges are recruiting students, and how they present themselves to the public in general.

Popular forms of social media such as Facebook, MySpace, Twitter, YouTube, Flickr, Snapchat, and Instagram have become important components in the marketing mix of most universities (Pratt, Dalfonso, & Rogers, 2014). Some universities have mastered the incorporation of technology and social media as important factors in their primary recruiting techniques, while others struggle with finding the right mix. Most universities still rely on traditional methods of recruiting including face-to-face meetings, print media, and campus tours (Steger, 2005). Students seek authenticity that is delivered in a digestible manner and are interested in interaction with current and incoming students rather than university or college administrators (Uversity & Zinch, 2012).

In addition to taking advantage of expanded opportunities to reach students via technology, universities are addressing more intensive examination by potential students. Colleges and universities are now realizing the potential power and implications for using certain platforms as important cogs in their overall marketing mix (Reuben, 2008).

Based on the literature, there appears to be little doubt that technology and social media and its many platforms have the potential to become significant factors in college recruiting and communicating with potential students. While the literature outlined above discusses the use of social media, my study focuses on the effectiveness of social media in the college decision-making process of students. Because technology and social media are so ubiquitous in all aspects of life, especially among students in the Generation Z cohort, my study provides information that will be useful to admissions counselors as they select recruiting techniques designed to attract and influence students to choose their institution.

Organization of the Study

This research study was organized and presented in five chapters. Chapter I includes the introduction, a description of Generation Z, the background of the study, the organization of the study, the statement of the problem and the research question, the purpose of the study, the significance of the study, limitations and delimitations, definition of terms, and a description of the theoretical framework. Chapter II presents the literature review that includes a discussion on decision-making and its relationships to college choice, information on the theoretical framework used in this study, and the adapted model created by this researcher, as well as the hypotheses. Chapter III includes a description of the methodology used in the study, the research design, how participants were selected, description of the survey instrument, procedures for data collection, data coding, and data analysis. Chapter IV will present the results of the study, demographic information related to the participants, and an analysis of the research questions. Chapter

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V will provide a discussion of the findings and recommendations for future research and practice.

<div align="center">Statement of the Problem and Research Question</div>

The use of websites, social media, and digital technology in college recruiting is a fairly recent phenomenon, but higher education institutions are demonstrating increased attention to the potential of social media as a tool for recruiting (Constantinides & Stagno, 2011). Because so many universities are exploring the role of social media in recruiting students, more studies are needed to provide university admission officers with valuable data for making decisions relative to recruitment strategies and their marketing mix as it pertains to social media. Although social media recruiting is a relatively new phenomenon in university recruiting, its rapid growth compels university admissions administrators to understand how rapidly and in what ways the landscape is changing and to learn how to select and capitalize on the high adoption rate of social media by Generation Z (Boyd, 2008).

Higher education institutions spend millions of dollars annually on enrollment management in an effort to influence students' choice relative to colleges and universities (Capraro, Patrick, & Wilson, 2004). Because the recruitment process is so expensive, admissions administrators need to evaluate traditional and technological strategies to determine the best recruiting mix for their individual institutions.

By having a good understanding of the factors that influence students' choice of institution, admission professionals should be able to better manage their selection of recruiting tools. Research is needed to understand to what degree social media and

technology are effective in college recruitment processes. This study examined entering college freshmen's perceptions of technology, social media and traditional recruiting methods and identified the factors that influenced their decisions.

Using a quantitative approach, I sought to answer an overarching research question that provides insight to university admissions administrators about which factors influence students' decisions to choose a particular institution. To determine the impact that technology, through the use of social media platforms, and traditional recruiting methods have on the information gathering and selection process of potential university students, I surveyed a convenience sample of incoming first-year students at a large university in the Southeast. To guide this study, the following research question was addressed: ***What factors influence students' college selection process?***

Purpose of the Study

The purpose of the study was to examine factors germane to students' choice when selecting a college or university. The data from this study can be used by admissions counselors to evaluate their recruitment techniques and to assist them in selecting the best methods for their particular institutions in order to influence student choice and to attract students to their institution.

Significance of the Study

The literature suggests that most institutions of higher education are incorporating more digital techniques into their recruiting strategies, although most still use many of the traditional methods as well. Boyd (2008) reported that social media is becoming very

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attractive to higher education as a recruiting tool because of the high adoption rates by younger generations and is an excellent way to influence college choice. Although many studies have been conducted on factors that cause students to choose one institution over another, this study expands the knowledge base by employing the Unified Theory of Acceptance and Use of Technology model (UTAUT) in combination with Hamrick & Hossler's (1996) framework, which focused on constructs of both sociologic and economic perspectives, to the strategies that influence college choice. This study examines why students chose to engage with a particular institution and identifies those factors that caused them to be attracted. Data gleaned from this study should have implications for higher education institutions as they determine which factors are most likely to benefit them in attracting freshmen to choose their institution.

Limitations

The study had the following limitations:

1. The sample is taken from a single institution; while this may limit generalization, it also afforded me the opportunity to acquire more detailed information from the research site. While it is true that college students in general may have common characteristics, it is also true that students attending varying universities and colleges may have very different characteristics, interests, and opinions (Richards, Rand, & Rand, 1967).

2. Only first-time freshmen (graduated high school in 2018) are included in the sample for this self-reported survey. Donaldson & Grant-Vallone (2002) posited that self-report bias sometimes occurs when participants try to answer in such a way as to look good among their peers.

3. A convenience sampling technique was used that may prevent generalization. Although the methods used to analyze the data are gathered from a large sample of students and may prove useful as a framework or springboard for

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future research, the findings from this study may not be widely generalized due to the fact that the sample is not random and may not be representative.

4. The study is based on those freshmen who responded. There is a possibility that respondents' and non-respondents' demographic data could differ, making the results different if non-respondents had participated. This result is known as response bias (Creswell, 2014). Therefore, the results in this study contain only the beliefs of the participants and cannot be generalized to the entire freshmen population.

Delimitations

Students were surveyed after they had selected their university of choice. Future researchers may want to use a similar survey but with a secondary school population. Due to the potentially large number of participants in the population, the study focused only on a population located in one large university in the Southeast. The data were collected in the fall semester of 2019, which represents a snapshot of the time and may not be exactly representative of another group of freshmen at a different time.

Definition of Terms

In order to provide additional context for this study, there are a number of terms that must be defined. The writer used the following definitions for this study:

- **Branding** includes techniques that universities use to distinguish themselves from competing institutions by presenting a unified message designed to build loyalty among their students, alumnae, and donors (Hanover Research, 2014).

- **Decision-making** is the process of identifying and selecting a course of action to solve a specific problem (Stoner, Freeman & Gilbert, 2003).

- **Digital citizenship** is based on etiquette, communication, accessibility, rights of others, safety procedures, security and protection, and education (Ribble, Bailey, & Ross, 2004).

- **Digital technologies** are electronic tools, systems, and devices that generate, store, or process data. These technologies include all mobile devices, social media, online games and applications, cloud computing, and multimedia (Department of Education, 2017).

- **Facebook** is a widely used free social networking website that allows registered participants to create profiles, send messages, stay in touch with friends and associates, and upload photos and videos. The site is available in 37 different languages and includes such features as groups, events, pages, and marketplace (WhatIs.com, 2015).

- **Generation Z** is the name assigned to people born around 1996 although some disagreement exists about the age boundaries for this group. Marketers and trend forecasters place Generation Z in the age group beginning around 1996, making them between the ages of 7 and 21 at this time (Williams, 2015).

- **Instagram** is an online mobile platform that enables photo-sharing, video-sharing and social networking services for users. Instagram allows participants to take pictures and videos and share them on a variety of social networking platforms such as Facebook, Twitter, and others. Users may make posts on Instagram or send directly as a private message (Instagram.com, 2015).

- **Snapchat** is a mobile messaging service and app that is designed for sharing photos, messages, and videos. The messages disappear once they have been read by the recipient (Tech Terms Computer Dictionary, 2016).

- **Strategic Enrollment Management (SEM)** "SEM is simultaneously a set of processes and policies associated with the recruitment and admission of college students, as well as the retention, academic success, and graduation of students enrolled in postsecondary education. It is also a managerial paradigm for organizations associated with these processes. Typically, SEM organizations include the offices of admissions, financial aid, registration and records, and an enrollment-related institutional research office" (Hossler & Bontrager, 2014, p. 4).

- **Social media** is "a collection of online platforms and tools that people use to share content, profiles, opinions, insights, experiences, perspectives and media itself, facilitating conversations and interactions online between groups of people" (Cohen, 2011, p. 3).

- **Technology** is "science or knowledge put into practical use to solve problems or invent useful tools" (www.yourdictionary.com > technology).

- **Twitter** is a social networking website, which allows users to publish short messages that are visible to other users. These messages are known as tweets and can only be 140 characters or less in length. Users have found many different uses for twitter, including basic communication between friends and family, a way to publicize an event, or as a customer relations tool for companies to communicate with their consumers. Twitter was founded in 2006. (http://www.businessdictionary.com/definition/Twitter.html).

<u>Theoretical Framework</u>

In addition to a common understanding of terms used in this study, it is important to have the context of the framework used to set the stage for the research. This section describes the framework used to design the study and analyze the data collected.

The Unified Theory of Acceptance and Use of Technology model (UTAUT) and the framework of Hamrick & Hossler (1996) combined to shape the theoretical framework used for this study. UTAUT was developed after careful study and evaluation of eight other prominent theories and their respective models in the technology and usage domain (Venkatesh, Morris, Davis G., & Davis, F., 2003). A detailed summary of the eight theories is presented in the literature review. The primary purpose of the review of prominent theories was to provide an assessment of the current state of knowledge related to understanding individual acceptance of new information technologies (Venkatesh et al., 2003). Venkatesh et al. (2003) were the first to assess similarities and differences across all the previously mentioned theories.

Following the researchers' assessment and evaluation of other theories, they developed a unified theory of individual acceptance of technology. According to

UTAUT, four constructs played a significant role as direct "determinants of user acceptance and usage behavior: performance expectancy, effort expectancy, social influence, and facilitating conditions" (Venkatesh, et al., 2003, p. 447). They also specified the role of key moderators (gender, age, voluntariness, and experience). The researchers provided data to prove that their theory, UTAUT, outperformed each of the other eight original models (Venkatesh et al. 2003).

The work of Hamrick & Hossler (1996), *Diverse Information-Gathering Methods in the Postsecondary Decision-Making Process,* was also used as a component of the theoretical framework. Their work was based on sociologic and economic factors impacting the college decision-making process. Hamrick & Hossler (1996) reported that the impact of information on student college choice has received little attention and stated that the effects of information on college choice should be carefully examined.

By using these two frameworks together, I was able to explore factors related to students' decisions through an examination of both user behavior and college choice. An expanded discussion of the UTAUT model and more detailed discussion of Hamrick & Hossler's (1996) work on college choice is presented in the Literature Review.

<u>Summary</u>

Admissions and enrollment personnel spend a great deal of time and money seeking to identify, attract, and enroll college freshmen. The competition for college students is fierce, compelling institutions to employ numerous techniques for attracting students. This chapter detailed the importance of technology to university recruiting efforts of Gen Z students, even though traditional methods are still widely in use.

Information relative to the targeted population, Generation Z, was presented and discussed.

Due to increasing financial pressures for higher education institutions, admissions administrators are seeking cost effective ways of recruiting students. Having knowledge of the ways in which high school students make their choices of which institutions to attend and the factors that influence them should be of value to these personnel. This study will assist personnel charged with the responsibility of recruiting qualified students by providing information relative to technology and other relevant factors.

Chapter II will provide a review of the literature, a detailed description of the original Unified Theory of Acceptance and Use of Technology (UTAUT) model, the adapted model developed by the researcher for this study, and the hypotheses. Chapter II will also highlight the framework of Hossler & Hamrick and the previous review of sociological and economic aspects of college choice-decision making by students.

CHAPTER II

LITERATURE REVIEW

Introduction

The purpose of the study is to examine the factors that influence students' choice when selecting a college or university. The research question driving this study is: ***What factors influence the student college selection process?*** Hanover Research (2014) reported that colleges and universities are paying much more attention to recruitment, branding, and marketing in their efforts to attract students to their institutions, pointing out that an intuitive website is the ultimate brand statement for an institution. "Perhaps the largest area of innovation and growth in higher education marketing and branding, as well as recruitment, is the online and digital space" (Hanover Research, 2014, p. 3).

In order to place this study in the landscape of existing scholarship, a literature review is required. A literature review is an important part of the study because it surveys the relevant books and articles and synthesizes the information relating to the research question. The literature review provides a framework of the intellectual content within which researchers define their own research. Webster & Watson (2002), shared:

> A review of prior, relevant literature is an essential feature of any academic project. An effective review creates a firm foundation for advancing knowledge. It facilitates theory development, closes areas where a plethora of research exists, and uncovers areas where research is needed (p. 276).

To examine the hypotheses and to address the research question, a review of literature was completed across both the academic and professional business domains. Literature related to decision-making in general and school choice specifically was

presented. The academic literature included an explanation of both frameworks used for this study, which consisted of Hamrick & Hossler's (1996) work using sociological and economic lenses in the context of college choice-decision, and the Unified Theory of Acceptance and Use of Technology (UTAUT) as it applied across various domains in the current study. Based upon the literature, an adapted model was proposed that tests the UTAUT within the college recruitment domain and incorporates some of the basic tenets of Hamrick & Hossler's work.

The literature review for this study consisted of several steps. First, I presented a review of decision-making and an explanation of how it relates to college choice. Second, I provide an overview of the growth of technologies and social media over the past decade. This section included a discussion on the impact of social media on communications and marketing. This part of the review demonstrated how businesses, organizations, and other entities are using technology and social media to communicate with and recruit students, employees, and customers. The next section provided a review of technology and social media recruitment techniques across two different but similar domains, business and college/university recruitment offices. The section on College Admissions provided insight into what is being implemented in university admission offices related to the use of technology.

The last part of the Literature Review includes a discussion on the theoretical frameworks of Hamrick & Hossler (1996) and the Unified Theory of Acceptance and Use of Technology. The adapted model that was developed for this study with accompanying hypotheses is also presented. This model was based on the original UTAUT and

incorporated some of the basic tenets from Hamrick & Hossler's work which together constitute the framework for the research in this study. The hypotheses were developed based on the new model and factors related to school choice. Finally, a summary of the literature review was presented prior to Chapter III, the methodology section.

<center>Decision-Making Processes</center>

Human decision-making is not a simplistic endeavor, according to Stein & Welch (1997), who reported that neither a single cognitive theory of choice nor a single dominant decision rule prevails. Decision-making processes have been evolving with contributions from a variety of disciplines for over 300 years; new theories are eclectic and may require a multi-disciplinary approach in an effort to understand them (Oliveira, 2007). Dietrich (2010) noted that some decisions are easy to make while others are more complicated and require several steps, but they are at the root of everything we do.

Hamrick & Hossler (1996) contributed significant work on the subject of decision-making. They reported that most of the research to that point relative to choice models had been based on theoretical constructs borrowed from economics, status attainment, and social capital research. Hamrick & Hossler (1996) also posited that the information variable had been given little attention because it did not readily conform to sociological and economic theories. They found that the information variable should be more carefully examined as it relates to student college choice.

Different factors influence how people make decisions including past experience (Juliusson, Karlsson, & Garling, 2005), beliefs in one's personal relevance in choosing and that the decision they make matters (Acevedo, & Krueger, 2004), and age and

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individual differences (de Bruin, Parker, & Fischhoff, 2007). Oliveira (2007) wrote that

deciders choose a particular alternative whenever expected value of that choice is greater

than other potential choices.

Shah & Oppenheimer (2008) reported that heuristics, or strategies used that are

readily accessible, are employed in making satisfactory decisions and emphasized the

theory that people want to reduce the effort expended in making decisions. Pachur &

Hertwig (2006) found that if people are given choices and one is recognizable, they will

choose the recognized option, noting they will expend the least amount of effort. In the

same vein, Redeimeier (2005) reported that people are likely to use information in

making a decision that is most easily accessible and is readily available. Shah &

Oppenheimer (2008) presented research on the *price heuristic* in which people might

choose a higher priced item believing its quality to be greater. Epley & Gilovich (2006)

researched the heuristic of *anchoring and adjustment* in which people use a ballpark

estimate and continue to adjust their estimates until they reach a satisfactory decision.

According to these researchers, people tend to avoid anchoring because it involves more

work.

Stein & Welch (1997) reported on the existence of filters and other mechanisms

used by humans when processing data and information and concluded that surrounding

environments might influence interpretations. Several studies reported on the impact of

culture on decision-making. Oliveira (2007) wrote, "…people's set of beliefs, or culture,

might influence and corrupt the information processing" (p. 13). Several researchers

have defined culture using a variety of terms including beliefs, feelings, assumptions, and

behaviors (Adler, 1991; Hofstede, 1997; Schein, 1992; Trompenaars, 1994). Oliveira (2007) reported that culture is a complex mixture of determining factors. Some of these factors, according to Oliveira (2007) are the following: (a) family, (b) gender, and (c) religion. The decision-making studies mentioned previously served as a springboard for numerous studies on college access and choice. My study will expand on previous studies and should be useful to admission personnel charged with the responsibility of developing a recruitment strategy.

<p style="text-align:center;"><u>The Relationship of Decision-Making to College Choice</u></p>

Choosing a college or university is a major life decision for many 18-year-olds, and a variety of factors may influence their decision-making processes. Because of the importance of students' decisions, admissions officers from institutions of higher education are very interested in knowing how they make their choices and exactly what influences these students. Numerous studies have been conducted to determine how decisions are made and how to identify the factors that influence choices. Discussions of the major studies follow.

In an early study, Chapman (1981) devised a student choice model that studied the interrelationship between influential variables and how they impacted college choice. The model was based on external influences and characteristics of students. Chapman's external influences included the following: (a) significant persons, (b) college efforts to reach students and communicate with them, and (c) fixed college characteristics. Student characteristics included in this study were the following: high school performance, the level of academic aspiration, aptitude, and socio-economic status (SES) (Chapman,

<p style="text-align:center;">30</p>

1981). Chapman's model was a significant step at that time, but a weakness includes the fact that some major influencers have changed since it was created. Today, influencers relative to college choice include websites, email, and technology such as social media platforms that make the current study highly relevant to student recruitment.

College choice has been studied for a number of years with a great deal of research devoted to determining the processes students follow when selecting a higher education institution as well as the factors that influence their decisions. Kotler & Fox (1985) developed a seven stage model that included (1) desire to attend college, (2) researching options related to college choice, (3) applying to college, (4) acceptance to a college, (5) enrolling in a college, (6) persisting through college requirements, and (7) graduation. Following Chapman (1981), Hossler & Gallagher (1987) conducted an added study on college choice. They concluded that the college process consists of three stages: predisposition, search, and choice. In the first stage, students become interested in attending college and career choices; in the second stage, they begin searching for information related to colleges in which they are interested; and in the third stage, students make a choice as to which institution to attend (Hossler & Gallagher, 1987). The Hossler & Gallagher model (1987) only contained three stages but is significant because it was one of the first major studies to examine college choice and decision-making (McDonough, 1997).

In a later study, Paulsen (1990) discussed three factors that have significant influence on the aspirations of potential college students: socioeconomic background, academic ability, and contextual (encouragement by parents, plans of their peers and

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friends, neighborhood or high school status, student's self-esteem, curriculum offerings, encouragement by authority figures such as teachers and counselors). Paulsen (1990) recommended that higher education institutions apply the marketing concept by using the following steps: First, they should identify the institutions with which a college competes. Then, they should determine an institution's image as compared to the competition. Finally, Paulsen (1990) suggested that higher education institutions study market segmentation and divide students into groups according to the characteristics that might make an institution attractive to them while differentiating themselves from competitors.

In 2000, Cabrera & La Nasa developed a college choice model based on a three-stage process that begins as early as the seventh grade and ends when a student enrolls in an institution of higher education. One of the major factors of their research is predisposition to attend college, according to Cabrera & La Nasa (2000), which is done during the seventh through ninth grades followed by searching for general information about different colleges during the 10th through the 12th grades. Finally, the choice stage is reached during the 11th and 12th grades. Cabrera & La Nasa (2000) also reported the importance of college choice influencers such as parental encouragement, the involvement of parents in school matters, saving for college, students' access to information, and financial aid.

Subsequent research on college decision-making by Perna (2000) examined cultural differences in college decision-making processes of African Americans, Whites, and Hispanics. Solorzano & Ornelas (2004) used critical race theory as the framework of

their study and wrote about the impact on college acceptance patterns and related racial and ethnic discrimination due to low enrollment in AP classes by Latina/o and African American students. "Disparities in AP course enrollment should be used as a window that offers a glimpse into other educational inequalities that exist in schools (Solorzano & Ornelas, 2004, p. 25). Perna (2006) reported that information related to college prices and financial aid is not readily available to African American, Hispanic, low-income, and first-generation students thus impacting their decision-making relative to college choice. Even controlling for income, African American and Hispanic students are much less likely to attend highly selective colleges and universities than white students and are therefore, extremely underrepresented in these institutions (Reardon, Baker, & Klasik, 2012).

College access and choice has also been studied within the literature. Perna (2006) studied college access and choice and developed a comprehensive conceptual model that included four layers. The first layer was *habitus,* which included demographic characteristics, cultural capital, social capital, higher education demand, resources, expected benefits, and expected costs. This first layer is considered the most important and impactful because it showcases "an individual's demographic characteristics, particularly gender, race/ethnicity, and SES, as well as cultural and social capital" (Perna, 2006, p. 117).

The second layer was labeled *school and community context* and consisted of availability of resources, types of resources, and structural supports and barriers. The third layer of the model was *higher education context and* encompassed marketing and

recruitment, location, and institutional characteristics. Finally, the fourth layer was labeled *social, economic, and policy context* and included demographic characteristics, economic characteristics, and public policy characteristics. Perna's model (2006) "draws on an economic model of human capital investment as well as the sociological concepts of habitus, cultural and social capital, and organizational context" (p. 116). Her model recognized the many ways that social structures and economic resources either facilitate college choice or stand in the way.

Reporting on student financial aid programs that were intended to ensure that lack of financial resources would not prohibit low socio-economic students from attending college, Perna (2006) found that despite all the efforts to assist financially challenged students, "individuals with low family incomes, individuals whose parents have not attended college, African Americans, and Hispanics are less likely than other individuals to enroll in college" (p. 99). Perna (2006) found that an excess demand for higher education, resulting in fewer available slots, may have an adverse effect on students from low-income families.

To improve recruitment strategies, it is helpful for admissions counselors to better comprehend the decision-making process young people undertake. Germeijs & Verschueren (2006) studied college career decision-making strategies that included "(a) Orientation to Choice (awareness, motivation), (b) Exploration (Self-Environment and Broad to In-Depth), (c) Implementation (choice satisfaction, choice stability, adjustment, and performance), and (d) Commitment (decisional status and degree of commitment)" (p. 451). Germeijs & Verschueren (2006) offered the following explanation of their

categories: Orientation is the understanding that there is a need to decide and that one must be motivated to engage in making a career decision; career exploration includes a self-appraisal that provides information relative to a career choice; finally, commitment is the state when one makes a decision that appears to be most suitable.

Research shows interesting gender and ethnic differences related to decisions about college choice. Shank & Beasley (1998) stated that characteristics such as location and academic majors are influenced by gender and play an important role in the college choice decision-making process. Cho et al. (2007) also stated that African American and Latino first-generation students are influenced by the ethnic makeup of the student body and the community and that this is an important factor in their decision-making as it relates to college choice. Further, Cho, Hudley, Lee, Barry, & Kelly (2008) reported that first generation and female students were likely to be more sensitive to psychosocial factors such as perceived safety, positive social climate, and having friends on campus. Malgwi, Howe, & Burnaby (2010) reported that the most influential factor related to women's college major was aptitude, while men were significantly more influenced by job opportunities and expected compensation in the field.

Wang (2013) stated that growing diversity among students in 21st century higher education will bring greater challenges to student affairs professionals and colleges as they strive to provide multidimensional programs and services that enable students to achieve success. The college choice decision-making process has been impacted by the fact that the 'typical college student' of today is not "the financially dependent, 18-year-old high school graduate who enrolls full-time," (Iloh, 2018, p. 25.) Much of the

literature and research related to college choice is focused on the so-called traditional student who is not the norm today (Iloh, 2018), and the language used when communicating with "post-traditional" students plays an important role in how adult students are viewed and how they view the institution (Iloh, 2018).

Finally, outstanding student athletes are heavily recruited and are often pressured to make the best decision for their future competitive profile as well as their academic opportunities. Klenosky, Templin, & Troutman (2001) reported that student athletes might consider such variables as the head coach and coaching staff, the opportunity to get a good education, costs associated with being away from one's family, the possibility of playing on television, and the chance of being injured (p. 97). Other considerations that impacted their decision process included a sense of belonging and a sense of accomplishment and achievement.

As indicated in the studies discussed above, the decision to attend one college or another is based on a variety of factors and influencers. Today, that choice has been further impacted by the incorporation of technology into the mix that should make findings of this study an important addition to the college choice literature.

<u>Technology and Social Media</u>

<u>Impact of Technology on Student Choice</u>

Even before the rapid rise of social media, students were influenced by technology as they conducted research relative to college choice. In an early study, Wajeeh and Micceri (1997) reported,

Cutting edge technology and the widespread use of educational technology were the two top ranked factors influencing these students' perception of a university's academic reputation. Seventy-seven percent (77%) of the students indicate that cutting edge technology has either a high (47%) or moderate (30%) influence on a university's academic reputation. The widespread use of educational technology was reported by 74% of the students as having either a high (42%) or moderate (32%) influence (p. 9).

In a study of college students' use of technology, Hawkins & Rudy, (2008), found that the great majority of college students in the United States who attended baccalaureate-degree granting institutions owned their own computers and that technology has become ubiquitous on college campuses. One educational area that has been impacted significantly by technology is distance learning. Despite the growing prevalence of distance learning and the increasing opportunities to seek a degree, there is little evidence related to college decisions related to distance learners (Lansing, 2017). The Lansing (2017) study did, however, bridge literatures related to college choice and distance education and offered data related to students' decisions to choose distance education programs over campus-based programs.

For some time, technology has been a major part of college students' lives. Junco & Cole-Avent (2008) reported that today's college students have always lived at a time when personal computers were in wide-use. They have grown up using information technology as a component of how they learned. As potential college students, they expect universities to respond to their inquiries with no delay (Junco & Cole-Avent, 2008). Moving from personal computers to expanded use of social media was a natural progression for Generation Z. With this in mind, web-based learning technology has had a significant impact on college students' methods of learning, according to Chen,

Lambert, & Guidry (2009). These researchers found a positive relationship between web-based learning technology and desired learning outcomes. They also found that technology offered new opportunities for students in the form of distance learning and for part-time students.

Rapid Growth and Development of Social Media

To set the stage for this study, it is essential to understand the changing role and rapid growth of technology and particularly, social media, in a global context and the ubiquitous adoption of digital technology around the world. "Social networks are currently being used by highly heterogeneous people with different ages, education levels, gender, social status, language, and culture who participate and incorporate social networks into their daily lives" (Mazman, & Usluel, 2010, p. 451). Social media has become an ingrained component of political campaigns, national defense methods, advertising and marketing, government policy and inter- and intra-communication in organizations (Sajid, 2016). Many businesses and industries, including the tourism industry, have been greatly impacted by social media which has played a prominent role in understanding decision-making behaviors of customers and promotion of tourism activities, according to Zeng & Gerritsen (2014).

Increasingly, consumers involved in using a variety of social media platforms have shared blogs, wikis, and sites while they created, modified, and exchanged content that they found on the Internet or developed themselves (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Kietzmann, et al. (2011) reported that social media is comprised of seven functional building blocks: (a) identity, (b) conversations, (c)

sharing, (d) presence, (e) relationships, (f) reputation, and (g) groups. University and college recruiters should be familiar with the different platforms and functions of social media and how to use them in communicating and marketing if they are going to successfully reach their targeted market.

Stephen (2016) reported, "Using the internet, social media, mobile apps, and other digital communication technologies has become part of billions of people's daily lives" (p. 3). Stephen (2016) wrote about the wide-spread use of social media by young people, reporting that close to 100% of college-educated and higher-income adults use the internet and social media and that the next generation has similarly high levels of usage. Lenhart & Madden (2007) reported that social networks are being used by millions of people, many of whom are students, and that the rapid adoption continues.

Social media tools have been incorporated in many educational activities including interaction, information sharing, and collaboration making social media a familiar educational tool for students (Ajjan & Hartshorne, 2008). The use of social media has become a global phenomenon with more than two billion people using social media with Facebook alone reporting over one billion active users per day (Stephen, 2016). Sajid (2016) wrote that this is an age of customer satisfaction and that people are focused on interacting.

Generation Z and other young people are using a variety of social media platforms with new ones added frequently. With respect to certain social media platforms and interactivity, Wertalik (2017) discussed increased opportunities for colleges to expand learning and interactivity among students. Students learn and

experience through a myriad of ways other than books and professor-based assignments. Most American adults and internet users interacted with at least one social network platform and young adults, ages 18-29, have adopted social media at a 90% rate (Perrin, 2015). Alhabash & Ma (2017) reported, "Across different social media platforms, the numbers of users are exceeding hundreds of millions and in some cases (i.e., Facebook) exceed the number of citizens in the world's largest country" (p. 2). Anderson and Jiang (2018) reported that 95% of teens have access to smartphones, and that they are constantly connected to YouTube, Snapchat, Instagram and other platforms. This is a 22-percentage-point increase since 2014-2015 when only 73% of teens had access to smartphones.

The Impact of Social Media on Communications

The impact of rapidly developing social media technologies has played a significant role in expanding communications between communities of people and between organizations and their constituencies. Safko & Brake (2009) stated that social media included activities and practices that embrace communities of people who gather online to share information, learn from their friends who are members of their social media groups, and contribute their own opinions. Social networking is one aspect of social media, where individuals participate in communities that share ideas, interests, or are looking to meet and communicate with people who have similar ideas and interests.

In recent years, social media has evolved from an intriguing method of communication to a widely used tool for education, business and individuals. New and emerging technology and social media platforms are fundamentally changing the way

hundreds of millions of people interact with each other (Moghadam, 2012). "The rapid ascent of social media across society is a very clear signal that individuals, groups and institutions are rapidly changing their preferences of how they learn, communicate, collaborate and participate in society" (Singh, 2018, p. 84).

Martin (2015) wrote that social media has offered unprecedented real-time access allowing people to connect at any time they choose. "Today, people consume the content they want, when they want it, and how they want it" (Martin, 2015). McCorkle & Payan (2017) reported that social media is one of the most effective methods to reach and communicate with audiences today. An added benefit of developing relationships with students on social media is that communications are public, for the most part, and can easily be shared and re-shared, thus increasing the number of students reached.

Rowan-Kenyon & Aleman (2016) wrote that social media is universal, and that people are connected continuously, especially students, who are using social media platforms throughout the world. "Social media allow people in higher education to communicate with various constituencies on a regular basis" (Rowan-Kenyon & Aleman, 2016, p. 13). They also reported that social media is frequently used to communicate with parents and potential students. Kim, Wang, & Oh (2016) offered evidence that college students' need to belong leads to social engagement and communications via smartphone use. Social media is increasingly important in businesses' and institutions' communication strategies, and higher education is no exception (Rutter, Roper, & Lettice, 2016). My study will add to the literature by showcasing how technology and

social media communications and recruitment strategies specifically influence students' college choice.

The Impact of Social Media on Marketing

Over the past decade, social media marketing has expanded rapidly onto the business, sports, entertainment, retailing, public relations, college and university recruitment, and athletic recruitment fields. Sashi (2012) stated, "The interactivity of social media greatly facilitates the process of establishing enduring intimate relationships with trust and commitment between sellers and buyers. Social media provides the opportunity to have multiple dialogues while sharing new and emerging information" (p. 260).

Social media marketing can also have an impact on choice-behaviors such as purchase decisions, Sheth (2013) studied the effect of social media marketing on users' attitude towards the brand present on social media and their purchase intentions. Sheth (2013) concluded that marketers should definitely have a presence on social media in order to compete, that they should plan effective marketing strategies carefully and finally, and that they should employ dedicated and highly competent social media staff members who are capable of constantly interacting with and engaging users.

The number of people who are using social media continues to expand exponentially, both domestically and internationally, causing social media marketing to grow faster than any other marketing strategy (Miglani, 2014). Newman, Peck, & Wilhide (2017) reported companies of all sizes have embraced the use of social media as a component of their marketing and public relations strategies, realizing that these

technologies offer powerful opportunities to connect with constituents. According to McCorkle & Payan (2017), one of the best ways to reach specific audiences through marketing is by using social media. Sajid (2016) wrote that social media is a marketing opportunity that transcends the typical channels and middlemen and allows companies to connect directly to their customers.

As the growth of social media users increases, spending on promotions and advertising via social media is also increasing rapidly. Social media advertising spending in the United States is estimated to reach $16.2 billion by 2019, up from $7.3 billion in 2014, growing at a five-year compounded annual growth rate of 17.4%. This represents a ten-fold increase from 2009, when social media spending in the U.S. was just over $1.6 billion (Miglani, 2014). Social media is changing how businesses develop their marketing strategies. Guzman & Vis (2016) stated, "Across industries, social media is going from a "nice to have" to an essential component of any business strategy" (p. 1). Consumers are becoming increasingly involved with companies in creating marketing content. In consideration of benefits, Barnet & Ferris (2016) reported that the benefits of social media from a marketing and recruiting perspective are numerous and comprehensive and include: "increased exposure, increased traffic, marketplace insight, developed loyal fans, generated leads, improved search rankings, grown business partnerships, reduced marketing expenses, and improved sales" (p. 541).

As another outlet for social media usage, higher education is now referred to as a market where considerable competition for students exists, both domestically and internationally (Rutter, et al., 2016). Barnes and Mattson (2009) reported that

universities now use social media in their marketing mix and that it is used specifically for recruitment initiatives. Increasing numbers of higher education institutions have integrated or plan to integrate social media platforms into their marketing strategies because these technologies are pervasive throughout communication channels (Singh, 2018). The exponential growth of social media platforms like Facebook, Twitter, LinkedIn, Snapchat and others is impacting the decision-making process relative to college selection (Singh, 2018). Recently, institutions of higher education are using social media channels to connect with and recruit prospective students, and their efforts appear to be producing good results (Singh, 2018). When marketing to students, institutions need to pay close attention to their visibility in the most popular social media when compared to competitors (Botha, Farshid, & Pitt, 2011).

The Impact of Technology and Social Media on College and University Recruiting

The phenomenal growth of technology and social media has expanded into university recruiting and has been driving many of the newer strategies for identifying and attracting students. Shields & Peruta (2016) reported that "Universities are facing increasing competition to attract and retain the best students and must understand how they can use digital marketing channels to keep students aware of, and engaged with, their schools" (p. 118). Rutter et al. (2016) wrote that universities which interact with their potential students have a higher level of recruitment success than those universities that do not.

Holland (2014) reported that students use two search processes when exploring colleges in which they are interested—systematic and haphazard. According to Holland (2014), students who fall into the haphazard category are greatly influenced by college marketing techniques. There has been a fluid and dynamic change across college and university campuses, with social media becoming permanent in the university recruiting landscape (Wertalik, 2017). Richard Levin, executive director of enrollment services and university registration at the University of Toronto in Canada believes a university's recruiting strategy should involve clear, consistent, and authentic communication when designing the message (Whitehead, 2012).

Admission programs in institutions of higher education are interacting with potential students using two-way communications supported by multi-media. These media allow schools to showcase such engaging tools as virtual tours, videos, photos, and sporting events. Mendolia-Moore (2018) reported that universities must be aware of the changing landscape relative to college recruiting and that they must embrace technology including virtual reality and augmented reality as part of college tours. "According to a study conducted by the Pew Research Center, social media usage has increased nationally by almost 1000% in eight years for individuals between the ages of 18 and 29" (Griffin, 2015). Not only are young adults heavily engaged in using social networks such as Facebook, Snapchat, Twitter and others, they are engaging very frequently (Clark, Fine, & Scheuer, 2016). Anderson, Dike, Du, Kaur, & Popp (2018) wrote that one of the best ways to communicate with potential students is to embrace the use of technology platforms that have the ability to reach millions of students with a single click of a button.

According to Shields & Peruta (2018), students who visit higher education social media sites are looking for ways to experience campus life and to get a better understanding of who their fellow students will be. Clark, Fine, & Scheuer (2016) wrote that social media provides institutions of higher education with a way to build high-quality, meaningful, and interactive relationships. Reuben (2008) reported that universities can use social media platforms such as YouTube to easily distribute videos of campus life to a wide audience that is much more effective than burning CDs/DVDs, paying postage and reaching a much narrower audience. Sandvig (2016) wrote that college-age individuals use social media sites daily and that colleges need to understand how they can use social media to connect with potential students for recruitment purposes.

According to Smedescu (2014), institutions must engage in planning to use technology such as social media effectively which includes identifying a target audience, listening to them, and determining which social media platforms can be used to reach the targeted audience. Davis et al. (2015), reported that social media was a major source of communication, and data seeking and had become an important part of students' identity; therefore, universities need to strategically focus on using these platforms for attracting young people to their institutions.

Because technology and social media have opened new recruiting opportunities for colleges and universities, allowing them to interact with a highly diverse potential student audience, this technology has become an important component of the recruitment process for many institutions of higher education. While Greenwood (2012) found that

92 percent of colleges were using social media in conjunction with their websites, Anderson et al. (2018) discovered through their research that most institutions were mostly using one, two, or three of the best-known platforms which are Instagram, Facebook and Twitter.

Chen, Calacal, & Nelson (2017) reported on a variety of ways in which universities are reaching out to students and improving their communications through the use of social media. Prestigious universities like Harvard, Stanford, and Yale are heavily involved in using social media for recruiting. Harvard was the leading user of all three social media platforms—Facebook, Twitter, and Instagram (Best Colleges.com., 2018).

Among colleges and universities, the age group of 16-24 is a highly coveted young-adult demographic. Competition for this group of students that are so highly technologically savvy is fierce, and university survival is highly dependent on engagement with them through evolving communication tools and use of social media (Barnes & Lescault, 2012). A notable trend in recent years is the fact that universities are devoting much more attention to recruiting and marketing than they did previously. According to Hanover Research (2014), one of the largest areas of innovation in recent years in recruitment and marketing was the use of online technologies and digital space with an intuitive website being one of the most effective tools.

Universities have begun incorporating social media and digital technology extensively into their marketing mix, but these institutions need more specific research regarding effectiveness of these methods to further embrace social media as a recruiting tool. Research has determined that even though the use of social media technology is

now widespread, little is known about the benefits for specific purposes such as recruitment, engaging with students, classroom learning or marketing (Davis, et al., 2015). These researchers argued that it is critical for universities/colleges to incorporate the use of SMT (social media technologies) into their recruiting and communication strategies. They found that SMT can be used very effectively to connect with students because this technology links people and enables them to share their feelings of belonging to a group, allows them to connect and exchange their opinions and feelings, and provides them opportunities to post their experiences. (Davis, et al., 2015). Given the above, the literature suggests that colleges and universities need to address technology usage in recruitment strategies and to focus on planning for communication and interaction with students they are targeting.

<u>Use of Technology by College Admissions Offices</u>

Admission programs in institutions of higher education are interacting with potential students using two-way technological communications supported by multi-media. These media allow schools to showcase such engaging tools as virtual tours, videos, photos, and sporting events. A trend in college admissions is increased video blogging and social network site usage (Barnes & Mattson, 2009) indicating increased sophistication with the use of sites like MySpace, Facebook and YouTube. Universities and colleges were also using video to deliver virtual campus tours, virtual visits to classrooms and dorms and even sample lectures of specific programs.

Lister (2016) posited that institutions can expand their ability to attract students by including virtual tours that allow potential enrollees to travel the campus. The

benefits of virtual tours included lecture halls, residence halls, lab facilities, athletic facilities, and student unions, among many other attractive visual sites were also reported by Lister (2016). Not only are virtual tours an outstanding tool for reaching domestic students, they are also used to provide visuals for international students. Institutions have become more challenged relative to their international recruitment efforts. Choudada (2013) reported on the increasing complexity of recruitment practices and the changing communication and decision-making process of prospective international students using new technological channels.

One of the major technological platforms making its way into university recruiting is Instagram, the leading photo-sharing app used by students, which debuted in 2009. The University of South Carolina, for example, uses Instagram to take pictures of incoming freshmen holding their acceptance letters. Even though students use Instagram heavily, some universities/colleges were not quick to engage students with this technology platform. According to Straumsheim (2013),

> [I]t still took many universities until 2012 to create their own accounts. Since then, institutions have used the app mostly to cater to three distinct groups: prospective students searching for a home away from home, current students their own residential experiences and alumni reminiscing about their time on campus (p. 1).

According to a survey conducted by Zinch (2012), an online scholarship-and school-matching service, about two-thirds of high school students are already using social media technology to research the colleges in which they are interested. Gil Rogers, Director of College Outreach for Zinch (2011), argued that universities should perhaps rethink their strategies and focus their recruitment efforts on the areas where they can

expect to get the highest return on their investments. The survey reported that 72% of the respondents from a survey of over 7,000 high school students have used technology such as social media as a resource when making decisions about where to enroll (Croke, 2012).

As universities continue to expand, so too will their already pervasive use of technology and social media as recruiting tools. These new technologies will continue to proliferate across organizations and institutions; therefore, it is important that university admissions personnel gain a deeper understanding of how they enable and constrain the activities through which their work is accomplished. The dynamics embraced in social media platforms address the very nature of how organizations and institutions are constituted and sustained (Leonardi, Huysman & Steinfield, 2013). This study will provide insight into how universities can use technology and social media to reach, attract, and engage potential students.

How Students Leverage Technology and Social Media Efforts

Technology has become ubiquitous on college campuses. As noted by Swartz, (2008), young audiences were much more likely to be engaged with technology and computer screens than they were to be watching television or a movie screen. Today's students look to social media as a source of news and information, as well as entertainment. Typical college students do not remember when they did not have computers, cell phones, competed in video games with opponents who might live thousands of miles away, chose to read blogs instead of books, or researched presidential candidates using Google (Birnbaum, 2008; Griggs & Johnson, 2006; Loretto, 2009).

College students utilize technology and social media for a number of reasons. Karlis (2013) surveyed 896 college students using current events on social media and identified five gratifications that the college-age demographic (18-24) seek when using social media. These gratification include the following: (a) information seeking, (b) surveillance/guidance, (c) voyeurism, (d) social interaction and (e) perpetual entertainment. Zinch & Uversity (2014) also surveyed 1,800 students about social media usage and specific technology platforms.

Of those students completing the survey, 45% reported using Facebook multiple times a day. Conversely, 32% reported using Instagram several times daily registering an increase of 139% over the previous year. With respect to Twitter, 24% of surveyed students indicated they used Twitter multiple times daily and showed an increase over the previous year of 23%. In the same study, two-thirds of the students responding reported that social media conversations influence their decision on where to enroll. Nearly all the students indicated that they access university websites using a smartphone or tablet. Students in this survey posited that "ease of content delivery" is very important with two-thirds of the participants reporting that they found their experience on college mobile sites to be simply "OK" or "challenging" (Zinch & Uversity, 2014).

Barnes (2015) pointed out that Millennials and Generation Z students have been raised with technology and are well-known for multi-tasking. Barnes (2015) wrote that these generations preferred to take in information, but they wanted it to be information of their own selection. Of great importance to Generation Z according to Barnes (2015), is information gained from their peers and not from marketers.

Nearly all of today's college students have access to mobile devices (95.6% of juniors and 96.6% of seniors) and are primarily interested in receiving information on their cell phones (Geyer & Merker, 2016). Of these college students, 67% are using instant, mobile communication tools such as Facebook to engage with college recruiters. According to the 2014 Zinch Social Admissions Report, 97% of high school students have visited a school's website on a mobile browser (smartphone or tablet). Of the 1,800 students responding in the Zinch report, 54% stated that college/university websites were extremely useful. Conversely, nearly 2/3 of the respondents reported that the experience was "just OK" or "challenging" (Geyer & Merkler, 2016).

Although many students still use Facebook, Twitter and other platforms, most juniors and seniors used email about once a week if they got a message from a school they were interested in attending, according to Geyer & Merker (2016). According to a study conducted in 2014, *The Evolution of Social Media Use Among College Students,* "…high school and college students rarely check their email anymore! Instead, they are using instant, mobile communication tools like Instagram and Snapchat."

In another report on college search and social media usage, *The Impact of Mobile Browsing on the College Search Process*, 82% of students who were surveyed said they preferred to look at college Web sites on a PC/laptop rather than mobile devices (p. 1); conversely, 68% said they had actually used mobile devices to view college websites (2013 E-Expectations Report). In the same report, it was stated that "78% of respondents have regular access to a mobile device; 80% of those devices are either a smartphone, tablet, or iPod Touch" (p. 1).

It was further noted that 65% of seniors visit college web sites weekly and nine out of ten respondents (high school Juniors and Seniors) had visited college websites within the past month. Based on the literature, it appears that mobile technology has been rapidly increasing in popularity among pre-college students as a tool for researching universities and colleges. Because of the pervasive use of technology and social media by Millennials, college administrators in charge of recruiting and providing information for students are now examining their outreach to students, and mobile technology is becoming an important component of the mix.

Finally, the appearance of an institution's website can have a major impact on students. Ruffalo Noel-Levitz (2013), in the *2013 E-Expectations Report,* found that 70% of the student respondents reported that an institution's website affects the perception of a college, while 97% reported that they seek reliable information on the college website. Additionally, 49% reported that they accessed a university or college site via Google. Among those who influenced college choice decisions, admissions counselors rated 65% following only parents/guardians' influence. The Ruffalo Noel-Levitz survey (2013) recommended that universities communicate with influencers of students and recommends communication streams for parents, high school counselors, and other key influencers of students' enrollment decisions.

As universities consider expansion of their use of technology for recruiting, they must find ways to make their information interesting and their sites easy to use not only for students but other groups who are influential in college selection. Further, admission administrators should be mindful of the fact that mobile devices are taking the lead in

technologies through which students access information. Universities might be wise to incorporate such techniques as a mobile app specific to their campus as this pervasive technology continues to influence students' choice of universities. Barnes & Lescault (2011) posited that the goal is to reach and engage potential college students who are tech savvy and may be making at least initial decisions based on a university or college's online presence. Knight-McCord et al. (2016) reported, "Social networks are both pervasive and powerful. They are an effective means of connection, one that college students use extensively." Students use a variety of technology platforms to connect with each other and with university and college admissions personnel including social media such as Facebook, Twitter, LinkedIn, Snapchat, Instagram, Pinterest, and YouTube (Knight-McCord, et al., 2016). My study will provide information that should be useful to college admissions personnel in determining what factors influence the student college selection process.

Theoretical Framework

The Unified Theory of Acceptance and Use of Technology Model and Diverse Information-Gathering Methods in the Postsecondary Decision-Making Process

This study was guided by a theoretical framework that included data from two sources: the Unified Theory of Acceptance and Use of Technology (UTAUT), a theory frequently used by researchers to describe how various aspects of technology are considered and utilized in making behavioral decisions and Diverse Information-

Gathering Methods in the Postsecondary Decision-Making Process (Hamrick & Hossler, 1996).

Ensuring user acceptance of various technologies is an ongoing challenge for management of all types of businesses. Because of the challenge to management and researchers to ensure user acceptance of technology and the confusion caused by a great variety of models and theories from which researchers had to pick and choose, the UTAUT was developed (Williams, Rana, & Dwivedi, 2015, p. 443). Williams, et al. (2015) stated, "In order to harmonize the literature associated with acceptance of new technology, Venkatesh, et al. (2003), developed a unified approach that brings together alternative views on user and innovation acceptance—The Unified Theory of Acceptance and Use of Technology (UTAUT)" (p. 443).

This research also drew on the previous work of Hamrick & Hossler (1996), which combined constructs of both economic and sociological perspectives with college choice. Hamrick & Hossler (1996) examined the effects of information-gathering related to the college selection choice. In earlier research, Hossler & Vesper (1991) reported that "students who have access to more external sources of information about colleges were most likely to fulfill their postsecondary educational plans" (p. 180).

Hamrick & Hossler (1996) also posited that the impact of information is an important variable that has not been given much attention because it does not lend itself to conforming with typical sociological and economic theories. Combining some of the major constructs and premises in Hamrick & Hossler's college decision-making process research and the UTAUT model as a theoretical framework should help to fill the existing

gap in the literature relative to the role technology plays in students' decision-making as related to college choice.

UTAUT was developed after the careful review and study of various dominant theories and their respective conceptual models in the technology acceptance and usage domain (Venkatesh, et al., 2003). Ultimately, "A unified model, called the Unified Theory of Acceptance and Use of Technology (UTAUT), was formulated, with four core determinants of intention and usage, and up to four moderators of key relationships" (Venkatesh, et al., 2003, p. 425). Venkatesh, et al. (2003), posited that "performance expectancy, effort expectancy, social influence, and facilitating conditions are determinants of behavioral intention or use behavior, and that gender, age, experience, and voluntariness of use have moderating effects in the acceptance of technology (IT).

Several user acceptance models have been developed that can be used as theoretical frameworks for the purpose of studying technology adoption (Venkatesh, Davis, & Morris, 2007) with foundations in fields such as psychology, information systems and sociology. UTAUT was developed to integrate and unify several fragmented theories that had been previously developed to study individual's acceptance of new technologies (Tan, 2013). The developers of UTAUT, integrated key influences of acceptance from eight widely accepted theories and models. A brief overview of each of the eight models that have been used as determinants of the intention to use IT and related behavior follows in chronological order in Table 2.1.

Table 2.2 illustrates how the core UTAUT constructs were derived from related theories and provides the sources for each of those theories. Derived from these

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Table 2.1. Summary of the Eight Theoretical Foundations of the UTAUT.

CREATOR(S)	MODEL	DESCRIPTION
Fishbein & Ajzen, 1975	The Theory of Reasoned Action (TRA)	TRA is a fundamental and highly influential theory on human behavior that focuses on attitude (Wang, Wu, & Wang, 2009). A person's performance of a certain behavior is influenced by their intention to perform the behavior (Davis, Bagozzi, & Warshaw, 1989).
Bandura, 1986	The Social Cognitive Theory (SCT)	According to Wang, Wu, & Wang (2009), SCT was extended to examine computer utilization. Compeau & Higgins (1995) added that this model studied relationships between how much encouragement was offered, organizational support, outcome expectations, self-efficacy, and anxiety.
Davis, 1989	The Technology Acceptance Model (TAM)	TAM was originally created to predict IT acceptance and usage on the job and is often applied to technologies and users (Wang, Wu, & Wang, 2009). The TAM is based on perceived usefulness and perceived ease of use as the primary determinants of one's attitude relative to using technology (Davis et al., 1989).
Ajzen, 1991	The Theory of Planned Behavior (TPB	TPB was used to extend TRA and is often used to understand individual acceptance and usage of different technologies (Wang, Wu, & Wang, 2009). Attitudes toward the behavior and perceived control can predict intention to perform the behavior (Ajzen, 1991).
Thompson, Higgins, and Howell, 1991	The Model of Personal Computer Utilization (MPCU)	MPCU was developed to predict PC utilization. IDT adapted and refined constructs to study individual technology acceptance. (Wang, Wu, & Wang, 2009). This model studied the impact of social factors, facilitating conditions, and perceived consequences on one's behavior (Thompson, Higgins, & Howell, 1991).
Davis, Bagozzi, & Warshaw, 1992	The Motivational Model (MM)	The Motivational Model (MM) employs motivational theory to understand technology acceptance and usage (Wang, Wu, & Wang, 2009). Two types of motivation were studied: extrinsic motivation is related to an activity that is done because it leads to a valued outcome. Intrinsic motivation is related simply to the enjoyment of accomplishing the activity (Davis, Bagozzi, & Warshaw, 1989).

Table 2.1. Summary of the Eight Theoretical Foundations of the UTAUT. (continued)

CREATOR(S)	MODEL	DESCRIPTION
Rogers, 1995; Rogers & Shoemaker, 1971	The Innovation Diffusion Theory (IDT)	A set of constructs was refined and used to explore individual technology acceptance. This model studied the relationships between voluntariness, advantage, compatibility, ease of use, and visibility (Moore and Benbasat, 1991).
Taylor & Todd, 1995	Combination of Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB)	C-TAM-TPB is a hybrid model that combines predictors of TAM and TPB (Wang, Wu, & Wang, 2009). This model incorporated social influences and behavioral controls (Taylor & Todd, 1995).

Table 2.2. UTAUT Constructs Development and Sources of Constructs.

CORE CONSTRUCTS AND DEFINITIONS	RESEARCHERS AND THEORIES
Performance Expectancy: The degree to which an individual believes that the system will help him or her to attain gains in job performance.	Perceived Usefulness (TAM/TAM2 and C-TAM-TPB): Davis (1989); Davis, Davis, Bagozzi, and Warshaw, (1989). Extrinsic Motivation (MM): (Davis, Bagozzi, and Warshaw, (1992). Relative Advantage (IDT): (Moore and Benbasat, (1991). Outcome Expectations (SCT): (Compeau and Higgins, (1995).

Table 2.2. UTAUT Constructs Development and Sources of Constructs. (continued)

CORE CONSTRUCTS AND DEFINITIONS	RESEARCHERS AND THEORIES
Effort Expectancy: The degree of ease associated with the use of the system.	Perceived Ease of Use (TAM/TAM2): Davis, (1989); Davis, Bagozzi, and Warshaw, (1989). Complexity (MPCU): Thompson, Higgins and Howell, (1991). Ease of Use (IDT): Moore and Benbasat, (1991).
Social Influence: The degree to which an individual perceives that important others believe they should use the system.	Subjective Norm TPB, TRA, TAM 2, (C-TAM-TPB) Fishbein and Ajzen, (1975); Ajzen, (1991); Davis, Bagozzi, and Warshaw, (1989); Taylor and Todd, (1995). Social Factors (MPCU)Thompson, Higgins, and Howell, (1991). Image (IDT) Moore and Benbasat, (1991).
Facilitating Conditions: The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system.	Perceived (TPB) and Behavioral Control (C-TAM-TPB): Ajzen, (1991); Taylor and Todd, (1995), Facilitating Conditions (MPCU): Thompson, Higgins, and Howell, (1991). Compatibility (IDT): Moore and Benbasat, (1991).

Table adapted from Tan (2013) and Akbar (2013).

previously mentioned theories and models, "The UTAUT suggests that four core

constructs are direct determinants of technology acceptance (behavioral intention) and

use (behavior): Performance Expectancy, Effort Expectancy, Social Influence, and

Facilitating Conditions" (Akbar, 2013, p. 2). The original definitions of these primary constructs and the names of researchers who developed them are listed in Table 2.2.

Upon review of the theory, Wang & Wang (2010) introduced the idea of 'moderating factors' to the UTAUT and added, "UTAUT consists of four core determinants of intention and usage, and four moderators of key relationships" including performance expectancy, effort expectancy, social influence, and facilitating conditions and the moderators of gender, age, experience, and voluntariness. Since its development in 2003, numerous studies in different areas of technology have validated the UTAUT model. The UTAUT model has been used to evaluate Moodle, a virtual learning environment for students, to assess the acceptance of blog technologies for learning and education, and for studying the adoption and attitudes of students toward electronic placement tests (Khechine, Lakhal, Pascot, & Bytha, 2014). Ouirdi, M., Ouirdi, A., Segars, & Pais (2016) applied the UTAUT to the use of social media for recruitment purposes and extended the model by incorporating two additional moderators, the recruiter's management position and level of education. Because the UTAUT has been widely used in predicting technology acceptance across numerous disciplines, it should be applicable in predicting student behavior as related to university choice.

The UTAUT is an often-cited theoretical framework in research that explains relationships of technology adoption in various contexts and user intention and behavior (Williams et al., 2015). The original article by Venkatesh et al. (2003) has been cited slightly under 5,000 times, with the UTAUT being discussed in reference to a range of technologies (including research on the Internet, web sites, and Mobile Technology

among others) with different control factors (such as age, gender, experience, voluntariness to use, income, and education) important to the explanation of behavior.

This updated conceptualization of the UTAUT including Wang & Wang's (2010) moderators is reflected in Figure 2.1.

Although the UTAUT research theory has not been applied directly to higher education recruiting, it has been used in related studies that encompass adaptation of technology in business fields, business recruiting, and education settings. Using both qualitative and quantitative methods and applying the UTAUT model, Ouirdi (2016) studied the combination of both recruiters' and job seekers' perspectives relative to the use of social media. Yu (2012) used the UTAUT model in researching factors that affect individuals when adopting mobile banking. Ouirdi, Ouirdi, Segars, & Paris (2016) reported on technology adoption in employee recruitment.

Akbar (2013) applied the UTAUT model in a study based on students' acceptance and use of technology. Kaba & Toure (2014) used the model in their research related to understanding young peoples' intention to use information and communications technology. The UTAUT model has been used in research that studied the management of student perceptions using course management software (Marchewka & Kostiwa, 2007). Other studies employed the UTAUT model in researching student acceptance of mobile learning for higher education (Nassuora, 2012; Kallaya, Prasong, & Kittima, 2009; & Thomas, Singh, & Gaffar, 2013). El-Gayar & Moran (2006) applied the UTAUT model in their study of college students' acceptance of tablet PCs and determined factors that induce students to adopt usage of technology. Magsamen-
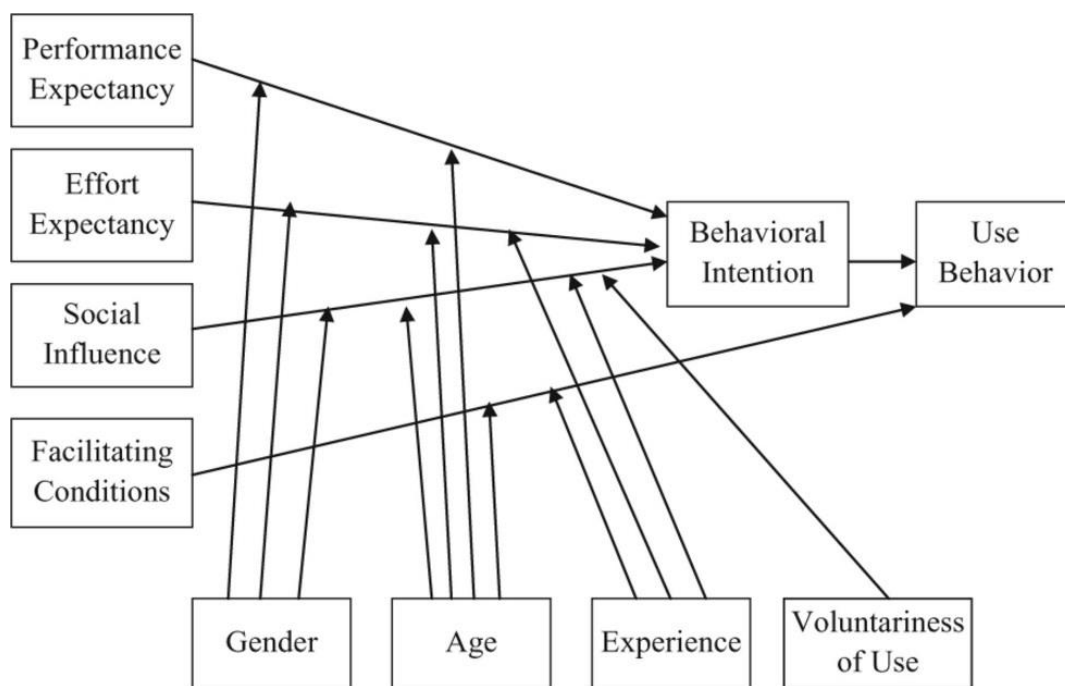
Figure 2.1. UTAUT Research Theory. Source: Venkatesh et al. (2003).

Conrad, Upadhyaya, Joa, & Dowd (2015) used the UTAUT model in a study related to predicting multigenerational tablet adoption practices. Kropf (2018) researched the application of UTAUT in determining intent to use cloud computing in K-12 classrooms. Research that has some connection to this study used the UTAUT model to investigate the determinants of gender differences in accepting mobile internet (Wang & Wang, 2010).

Adapted Research Model for Study

While the constructs of UTAUT have been operationalized in several other technology-based studies, the context of how students utilize technology in a decision-making capacity related to university choice has not been explored. In particular,

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identifying and testing factors such as performance expectancy, effort expectancy, social influence and facilitating conditions and their relationship to behavioral choice (selection of a specific college/university) have not been fully examined. The following table (see Table 2.3) reflects the proposed constructs and their adapted definitions as they relate to the context of college/university choice by perspective students.

A detailed explanation of the constructs and behaviors are presented in the upcoming section on Research Hypotheses. This section on Research Hypotheses will explain the connection between the original UTAUT research and, for the purposes of this study, an adaptation of the theory to university recruiting. A revised UTAUT conceptualization that included pertinent moderators from Hamrick & Hossler's (1996) work on decision-making was created to answer the following question: ***What factors influence the student college selection process?***

The proposed adapted model (see Figure 2.2), based on the literature and research previously reported using the UTAUT and includes moderators from Hamrick & Hossler's (1996) work, is an effective framework to evaluate the use of social media recruiting techniques in a higher education environment. For purposes of this study, as indicated in the model, two major sets of attributes as moderating effects were evaluated, Individual Attributes and University Attributes. While the original UTAUT tested moderation effects of gender, age, and experience, new moderating dimensions were also important to consider in the student decision-making process.

To address this, three dimensions (gender, legacy, socioeconomics) were combined into one moderating factor termed "individual attributes." This was done in

Table 2.3. Definitions of Major UTAUT Constructs for Adapted Model.

Construct	Definition
Performance Expectancy	The degree to which an individual believes that using the system (e.g., social media) will help him or her to identify the most appropriate university/college.
Effort Expectancy	The degree of ease associated with the use of the system (e.g., social media vs. traditional recruitment methods).
Social Influence	The degree to which an individual perceives that important others including peers, counselors, and teachers believe he or she should use the system.
Facilitating Conditions	The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Examples: images of campus, housing, classrooms, athletic facilities, libraries and social areas).
Behavior	The degree to which an individual's behavior is influenced by preceding factors and constructs.

Adapted from (Akbar, 2013, p.8).
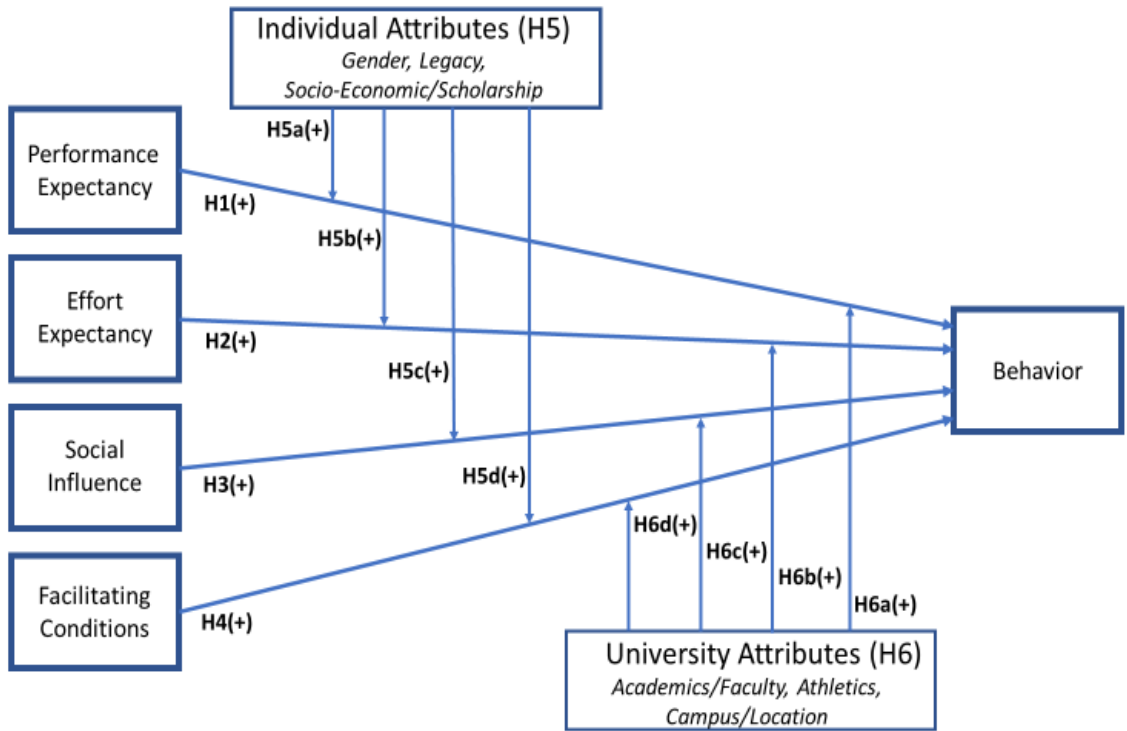
Figure 2.2. Adapted UTAUT Model for College/University Choice.

the adapted model given that these dimensions are related to individual traits of the student applicants and are supported from Hamrick & Hossler (1996) that reviewed factors such as gender, socioeconomics and parental influence. Similarly, a second moderating factor, termed "university attributes," were tested that included dimensions of academics/faculty, athletics, and campus/location. These attributes were outside of the individual applicant (external to self) but may play an important role in affecting student choice of college or university.

This research seeks to validate an adapted/expanded model of UTAUT in the context of university/college recruiting. The model presented by the researcher above extends the UTAUT theory by using the dimensions of (a) campus/location; (b) athletics;

(c) faculty and academics; (d) legacy, (e) socio/economic/ (f) scholarship and (g) gender moderators. The model provides a cluster of constructs related to university/college recruiting with the goal of designing a model that predicts potential student behavior.

The dimensions used in the adapted/expanded model were selected from two of the "gold standards" in the area of student recruitment: *Trends in Higher Education Marketing, Recruitment, and Technology (*Hanover Research, 2014, p.14) and *E-expectations Class of 2016: Examining Transitions from Junior to Senior Year* (Geyer & Merker, 2016). In an extensive telephone interview with Stephanie Geyer, Vice President of Web Strategies and Interactive Marketing Services for Ruffalo Noel Levitz and one of the primary researchers of the *E-expectations Class of 2016* document, input was provided relative to the primary dimensions impacting students' higher education selections (Stephanie Geyer, personal communication, February 16, 2017). Geyer recommended using the two documents previously noted to select moderators.

Based on these two extensive reports on college and university recruiting that are considered the "gold standards" for college recruitment in the industry and the research of Hamrick and Hossler (1996), the researcher selected the following dimensions: Individual Attributes: (a) gender, (b) legacy, (c) socio-economics/scholarships and University Attributes: (a) campus/location, (b) athletics, and (c) faculty/academics. Table 2.4 provides an explanation of the newly incorporated attributes and dimensions.

Explanation of Researcher's Use of UTAUT

In this study, the Unified Theory of Acceptance and Use of Technology Model (UTAUT) has been adapted and expanded. The UTAUT was chosen as the basic

Table 2.4. Moderators with Accompanying Dimensions for Adapted Model.

MODERATOR	DIMENSION	EXPLANATION/DEFINITION
Individual Attributes		Moderators impacting college choice internal to the applicant (within their scope or self)
	Gender	Male or Female
	Legacy	Students' parents attended the college/university choice of attendance
	Socio-Economic/Financial	Based on socio-economic status, financial support, availability of scholarships and cost of attending a college or university
University Attributes		Moderators impacting college choice external to the applicant (outside of their individual scope or selves)
	Faculty/Academics	Ranking of academic programs, reputation of faculty, student services, and offering of preferred program
	Athletics	Success of college or university athletic teams; student participation in varsity athletics
	Campus/Location	Images of campus, classrooms, housing incorporated into recruitment materials; urban or rural location of the college or university

structure to use in developing a model specific to university/college recruiting because it has been widely operationalized in determining the success of technology acceptance in various contexts. While some scholarly studies that used UTAUT and were related to this study were located within the literature, none compared the topic of Generation Z students' selection of a university/college. By focusing on recruitment in higher education, by using the UTAUT theory with no changes to the primary constructs, and by selecting moderators specific to this research, this study represents an area that has not been explored. This study addresses the question: ***What factors influence the student college selection process?***

Research Hypotheses

With support from prior literature and empirical evidence, the following research hypotheses were formulated based on the relationships between the primary UTAUT constructs of performance expectancy, effort expectancy, social influence, and facilitating conditions with behavioral choice as suggested in the proposed adapted model. Moderating factors of individual attributes (legacy, gender, socioeconomics) as well as university attributes (faculty/academics, athletics, campus location) are also proposed within the adapted model to be tested (see Table 2.4). The relationships between the major constructs and the moderating factors will yield an indication of their influence on behavior (school choice). An explanation of the four major constructs, the hypotheses, and the proposed moderating effects are provided as follows:

Hypotheses H1 (Performance Expectancy)

When using university/college recruiting systems, there is a positive relationship between performance expectancy and students' choice of attendance at a University.

Performance expectancy can be defined as the extent to which users believe that using technology helps attain certain benefits. Venkatesh et al. (2003) reported that performance expectancy was the strongest predictor of behavioral intention. In general terms, results from Ghalandari (2012) suggested the significant and positive effect of performance expectancy on users' behavioral intention to use technology in the services industry, reflecting that if technology is perceived to improve performance, they are more motivated to use those services. Decman (2015) reported that the UTAUT has general applicability applications when used in e-learning settings and demonstrated that performance expectancy significantly impacts one's intention to use technology. In a study conducted by Tan, Ooi, Sim & Phusavat (2012), factors such as perceived usefulness, perceived ease of use, and subjective norms were determined to be highly important factors in the intention to adopt training.

Learning is also impacted by information technology and people's expectancy from that technology. According to Wang, Wu, & Wang (2009), the strongest predictor of behavioral intention to use information technology is that of performance expectancy. Wang et al. (2009) reported further that, when adapting performance expectancy to mobile learning (m-learning), learners will find it useful and m-learning will help to accomplish activities more quickly and effectively. M-learning is defined as follows:

"M-learning is the delivery of learning to students anytime and anywhere through the use of wireless Internet and mobile devices" (Wang, et.al. p. 97).

As a function of m-learning, it is important to understand the role Mobile Internet is likely to play when accessing university and college sites. Wang & Wang (2010) stated, "Mobile Internet (m-Internet) refers to accessing wireless Internet anytime and anywhere via palm-sized mobile devices including mobile phones, personal digital assistants (PDAs) and smart phones" (p. 415). Because of the rapid growth of demand for mobile phones, and the development of third-generation technology, accessing the Internet via a mobile phone to conduct mobile-related activities is likely to become popular. (Wang & Wang, 2010). Lohnes & Kinzer (2007) reported that students who have attended highly technical institutions may have different expectations relative to the performance of technology. Meeting students' expectations of functionality and performance is a major challenge since many students have been exposed to high-quality technology environments (Dahlstrom & Bichsel, 2014).

These factors relate to performance expectancy and thus, it is believed that there will be a positive relationship between performance expectancy and students' choice of attendance.

Hypotheses H2 (Effort Expectancy)

When using university/college recruiting systems, there is a positive relationship between effort expectancy and students' choice of attendance.

Today's students expect to be engaged; they quickly lose interest if content is not appealing because they are accustomed to richness in media, communication, and

creativity. Prensky (2005) reported that students who use video games are enticed with such words as encounter, explore, thrilling, challenging, perform, lead and don't work alone, while in school they are asked to accept the content that is offered whether it is engaging or not. They have short attention spans, according to Prensky (2005), but they are mostly aimed at the old ways of learning. If the content is engaging, students are more likely to pay attention. This generation values education and sees the importance of higher degrees, but according to Barnes, Marateo, & Ferris (2007), they learned differently. These students have grown up with digital and cyber technologies and seek engagement. Oblinger & Oblinger (2005) posited that this generation has distinct ways of learning and communicating because they are accustomed to media saturation. Students appeared to have independent learning styles that have grown out of their learned habits of seeking information on the internet and are much less passive than previous generations (Tapscott, 1998). Prospective students have many options to engage, making it necessary for institutions to display attractive, easy-to-use, and helpful websites. Usability plays an important role as user experience is a key aspect of web design; the question is one of deciding what constitutes a well-designed site and how to evaluate the same (Tan, Liu, & Bishu, 2009).

Effort expectancy is based on the belief that a positive outcome is related to the amount of effort expended. According to Fang (2008), expectancy theory proposes that the degree to which one is motivated to work is dependent upon the perceived relationship between performance and outcomes and that individuals modify their behavior based on their belief in anticipated expectations. Expectancy theory is based on

the idea that there is a positive correlation between effort and outcome. Fang (2008) reported that expectancy is determined by the strength of the relationship between the effort exerted and the performance or reward.

An international study conducted on technology adoption using the UTAUT model as related to cultures found that "effort expectancy has a greater impact on behavioral intention in the U.S. than in Korea. This implies that the U.S. users' decision-making on technology adoption is affected more than Korean users by how easy the technology is to use" (Im, Hong, & Kang, 2011, p. 7). There appears to be a strong connection between acceptance of a particular technology and how easy the platform is to use.

Today's potential college students have never known life without the internet and a myriad of technological devices and are accustomed to having instantaneous access. Young people of Generation Z are likely to deal with information in different ways from previous generations, and they are likely not to do scrolling but to concentrate on the results found at the top of a page (Geck, 2007). They develop minds that leap around in a hypertext manner according to Oblinger, D. & Oblinger, J. (2005). Therefore, they are likely to have short attention spans and to expect rapid success. These students desire active, engaged learning experiences and varied forms of communication. They have deeply imbedded habits of searching for and retrieving information from the Internet, which is in direct contrast to previous generations of students who were fed information in a passive manner from authority figures (Barnes, Marateo, & Ferris, 2007).

Some researchers stated that many universities have ineffective websites that were difficult to manipulate and create frustration for potential students. This fact could pose a serious problem for universities seeking to attract students as Geyer & Merker (2016) report that 82% of potential candidates use websites to search institutions. In a recent study, 57 university websites were tested in which students were asked to browse websites and see if they offered good options. Sherwin (2016) reported, "It's an empirical fact derived from observing many prospective students using many university sites that these users are often frustrated or thwarted by the frequent usability problems on university sites" (p. 1). Websites should not be aimed at being "cool;" rather, they should offer age-appropriate information that is easy to locate. Potential college students were often frustrated because they cannot quickly locate the program or major in which they are interested and might give up. Sherwin (2016) reported that users rarely read full text; rather, they scan pages so valuable, persuasive information should not be buried in long, dense paragraphs, and he observed that teenagers do not have fully developed research skills and may quickly resort to external searches to find information.

Mentes & Turan (2012) assessed the usability of university websites and reported that websites are emerging as a very important component of organizations' survival with universities being no exception. One of the most popular website evaluators, WAMMI, evaluates websites based on their usability and ease of use. WAMMI uses five criteria to determine the quality of websites: (a) attractiveness, (b) controllability, (c) efficiency, (d) helpfulness, and (e) learnability, important factors for the effectiveness of websites (http://www.wammi.com/demo/graph.html). University admissions and recruiting

personnel must evaluate their websites against the competition and should consider students as consumers with whom they need to build long-lasting relationships.

One of the biggest changes in college recruiting has been the increasing role of technology in reaching potential students and the ability to research institutions with much less effort than previously. Selingo (2017) reported, "It (technology) has allowed students to easily and quickly apply online to multiple colleges, as well as take virtual tours of campuses from the comfort of their living rooms" (p. 2). Decman (2015, p. 280) stated, "Today students use computers and other digital devices on a regular basis in their everyday lives, believing that information technology makes their lives easier, more efficient, and more inclusive." Lowenthal (2010, p. 196) supported Decman's (2015) research by positing, "As with any new technology, general acceptance is one of the key issues confronting e-learning and, more directly, m-learning."

Based on the previous information, it is believed that there will be a positive relationship between effort expectancy and students' choice of attendance.

Hypotheses H3 (Social influence)

> ***When using university/college recruiting systems, there will be a positive relationship between social influence and students' choice of attendance.***

Social influence is related to the pressure exerted by peers, parents, friends, and others to make a particular decision. Bozan, Parker & Davey (2016), "Driven by the motivation to comply, an individual develops beliefs about the extent to which other people who are important to them think they should or should not perform" (p. 3106). External influences that are significant in students' lives influence their selection of a

college/university. Included in the category of significant persons are parents, friends, and high school personnel (Kealy & Rockel, 1987).

Researchers have identified multiple variables which correlate with and have an impact on students' decisions to pursue higher education over the years. Social influence appears to play a prominent role in many students' choice of attendance. This social influence may come from friends, parents, other relatives, and counselors. Eberly, Johnson, & Stewart (1991) reported that peer attendance is likely to be a strong motivating factor for students to attend postsecondary institutions. Wang, Wu, & Wang (2007) found that there was an effect of social influence on intention that was significant for men, but not women, while Broekemier & Seshadri (2000, p. 4) determined that, "Parents and other relatives were mentioned most frequently as influencers, followed by friends at college, high school counselors, teachers, classmates, college representatives who visit high schools, and college alumni." This was supported by research from Brusoski, Golin, Gladis, & Beers, (1992) that determined that of the key factors of influence, family influence emerges near the top of importance for students.

Parental influence is an important component in students' decision-making as it relates to college choice (Workman, 2015). The process involves many stages in which college officials, guidance counselors, teachers, and peers also play important parts. Attending college has become an increasingly important decision by parents who believe a college education will improve their children's social and economic position and that parents' voices are the most influential in the decision to go to college and about which college to attend (Carnegie Foundation, 1996). The Carnegie Foundation (1996) also

reported: "Whatever college a student selects, he or she seldom makes the decision alone. College choice involves a dialogue between young people and their parents, counselors, teachers, friends, and college representatives (p. 33).

Students and parents expect outstanding customer service, causing institutions to continuously upgrade their residence halls, food offerings, recreation and exercise facilities (Worley, 2011). Students appear to be heavily swayed by their parents' input. Gyasi, Xi, Owusu-Ampomah, & Basil (2017) stated,

> Nearly 60% of prospective college students report they research colleges with their parents, and 61% of parents say that the final decision on where to enroll is made together. As expected, students are also affected by peers, but as a study by ACSD [Association for Supervision and Curriculum Development] points out, that relationship is correlational. (p. 2).

Finally, the role of parental involvement was noted by Perna & Titus (2005) who reported, "Administrators of college preparation programs, as well as researchers and policy analysts, generally believe that 'parental involvement' is a component of "successful" programs" (p. 486). Given this information, it is argued that the role of social influence will have a significant positive effect on a student's choice of attendance when using various college recruiting systems.

Hypotheses H4 (Facilitating Conditions)

When using university/college recruiting systems, there is a positive relationship between facilitating conditions and students' choice of attendance.

A university's brand is instrumental in the perceived favorability of potential students, according to the literature. Bennett & Ali-Choudhury (2009) reported,

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A university's brand is a manifestation of the institution's features that distinguish it from others, reflect its capacity to satisfy students' needs, engender trust in its ability to deliver a certain type and level of education, and help potential recruits to make wise enrollment decisions. (p. 85).

Facilitating conditions appear to have a positive effect on users' choice to use a technology-oriented system. Akbar (2013, p. 8) defined facilitating conditions as "The degree to which an individual believes that an organization and technical infrastructure exists to support use of the system." In the Akbar (2013) study, the researcher reported that facilitating conditions had a significant influence on technology usage. In a study conducted by Ghalandari (2012), results suggested significant and positive effect of facilitating conditions on users' behavior in service industries. Ghalandari (p. 806) stated, "Thus it seems necessary to provide required resources, information, and continuous support to encourage users to employ services consistent with their lifestyles."

Students seek a broad range of factors when making a choice of which institution to attend. Pampaloni (2010) reported that schools need to provide at least minimal information on a wide variety of interests. Pampaloni (2010) reported, "One way of doing so is for schools to recognize the influence of direct contact with the school via tours, open houses, or on-campus interviews" (p. 41) and to understand that size and housing are also influential.

In a study of pre-service teachers, the researchers found that attitude toward computer use was significantly influenced by facilitating conditions and perceived ease of use (Teo, 2009). Thompson, Higgins, & Howell (1994) stated that facilitating conditions serve as external control that is related to the environment and that a particular behavior could not occur if the facilitating conditions hindered the behavior. Teo (2009),

"In other words, facilitating conditions are factors in the environment that influence a person's perception of how easy or difficult it is to use to perform a task…" (p. 94). In a follow-up study, Teo (2010) reported that facilitating conditions had significant impact on the subjects' intention to use technology and their attitude toward perceived ease of use was a mediating factor.

Facilitating conditions within a college/university setting include a number of dimensions that could potentially affect a student choice to attend. In the case of this study, facilitating conditions includes images of campus, housing, classrooms and athletic facilities, social areas and libraries, among others.

Petr & Wendel (1998) reported, "Some students may choose a particular college due to cost, academic merit, and the influence of others without consideration of the campus community. For other students, however, the social climate of an institution may be the most important factor in a decision to attend" (p. 31). Nora (2004) stated that students tend to make decisions to attend specific institutions based on how they experience comfort, acceptance, and fit. Price, Matzdorf, Smith, and Agahi (2003) added that high-level facilities had a significant influence on where students' elected to attend.

Based on this information it is believed that facilitating conditions will have a significant positive effect on a student's choice of attendance when using various college recruiting systems.

Moderating Factors to Model (H5a-d and H6a-d)

A variable refers to a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among the people or organization being

studied (Creswell, 2014, p. 52). Variables that are typically included in studies often include gender, age, socioeconomic status and other attributes or behaviors (Creswell, p. 52). Independent variables include those factors that cause or influence outcomes. Dependent variables depend on the independent variables and are the results of the influence of the independent variables (Creswell, p. 52). In a quantitative research study, the variables in the study are used to make predictions relative to what the researcher expects to find. These predictions are labeled hypotheses.

Variables are also used to answer a research question (Creswell, 2014, p. 53). Moderators, also termed moderating variables, help to identify the strength of the relationship between two independent factors (e.g., X and Y) when the moderators exist (Kline, 2005). For example, a moderator known as "U" could cause the relationship between X and Y to increase when M's value is significant. Conversely, "U" might negatively impact the relationship of X and Y depending on its size or weight. Moderating variables are independent variables that affect the strength and/or the direction of the relationship between the dependent and independent variables (Thompson, 2006). Moderators have also been defined in the literature as "…a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (Baron & Kenny, 1986, p. 1174). They often take on "qualitative" type dimensions such as sex, race, or class, and are often used in research when there are historically inconsistent relationships between the predictor and criterion

variables or when the relationships may be in a new or unproven setting (Baron & Kenny, 1986).

While the original UTAUT tested moderation effects of gender, age, and experience, new moderating dimensions are also worth considering. These include dimensions such as gender, legacy, socioeconomics, and perceptions of academics/faculty, athletics, and facilities/location are relevant to the student recruitment process and may be impactful on the proposed hypothesized relationships based upon support from the extant literature. Therefore, these moderating factors were investigated and studied as to their relationships on the proposed "adapted" UTAUT in the university recruitment setting.

The moderating factors proposed, individual attributes and university attributes, were tested across each of the four main hypothesized paths within the adapted UTAUT for university recruitment. The effects of perceived individual attributes and perceived university attributes were tested across the paths of performance expectancy → behavior, effort expectancy → behavior, social influence → behavior and facilitating conditions → behavior. To address why each of these dimensions was chosen in the context of university recruitment, a brief summary of literature on each of the six moderating dimensions will be provided.

<center>Individual Attributes and Related Hypotheses</center>

The following section discusses individual attributes of gender, legacy, and socioeconomics. Hypotheses related to individual attributes are presented below:

H5: Individual attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT, specifically the relationships between:

- **H5a: Individual attributes will have a significant and positive effect on the relationship between performance expectancy and choice of attendance.**

- **H5b: Individual attributes will have a significant and positive effect on the relationship between effort expectancy and choice of attendance.**

- **H5c: Individual attributes will have a significant and positive effect on the relationship between social influence and choice of attendance.**

- **H5d: Individual attributes will have a significant and positive effect on the relationship between facilitating conditions and choice of attendance.**

Gender

According to Venkatesh and Morris (2000b), men and women are affected differently by technology. In particular, their technology decisions differ. "…men's technology usage decisions were more strongly influenced by their perceptions of usefulness. In contrast, women were more strongly influenced by perceptions of ease of use and subjective norm…" (Venkatesh & Morris, 2000b, p. 115). Research also suggested "…that social influence is a stronger determinant of IT usage intention for women than for men" (Wang, Wu & Wang, 2009, p. 112). Wang & Wang (2010) stated, "First, we predicted correctly that the effect of performance expectancy on behavioral intention was significant for men, but nonsignificant for women, and this is in accordance with the findings of prior research" (p. 423).

Gender also has shown to affect the relationship of social influence and behavioral intention (Wang et al., 2009) as well as the relationship of effort expectancy and behavioral intentions (Wang & Wang, 2010). Gender was also suggested by Hamrick & Hossler (1996) as a key variable in decision-making for postsecondary choice. Khechine, Lakhal, Pascot, & Bytha (2014) reviewed several studies and concluded that gender has a moderating effect and plays an important role in the relationship of the UTAUT constructs and the intention to use specific technology. The author reported: "there exist some significant gender and age differences in terms of the effects of the determinants on behavioural intention" (Wang, Wu, & Wang, 2009, p. 112). In a study conducted by Mazman, Usluel & Cevik (2009), the researchers noted that differences across gender dimensions were very important in the usage and adoption of technological innovation.

In terms of students and technology, various studies reflect gender differences. There is some concern among researchers that women may not avail themselves of technology as readily as men. Huang, Hood, & Yoo (2013) posited:

> …one may easily argue that the Internet is open to everyone. Being able to "access" the Internet is no longer an issue. The issue is whether or not female users are "willing" to "participate" in Internet-based activities. Collectively female users might perceive a lower level of representation on the Internet. Consequently, women might not utilize the Internet as frequently as men."

Brusoski, Golin, Gladis, & Beers (1992) further stated, "Approximately 32 percent more males than females reported feeling that college attendance was taken for granted by each of their parents." This finding indicates that gender is a strong moderator for social influence. (p. 228). Shashaani, (1997), stated, "Students responded differently in regard

to attitudes and experience: females were less interested in computers and less confident than males: males were more experienced." (p. 37) Shashaani concluded, "…parents' positive attitudes and encouragement appear to be important in motivating females to become involved with computers." (p. 48).

Legacy

Influence of parents on postsecondary choice behavior has been noted by Hamrick & Hossler (1996). The literature also indicates that legacy plays an important role in college admissions, especially in prominent research universities and liberal arts colleges. The term "Legacy" is typically applied to children of alumni but also may include other family members including grandchildren, nephews and nieces (The Carnegie Foundation, 1986). Kahlenberg (2010) stated early 20th century evidence suggested that legacy preferences were born of discrimination impulses against immigrants and people of Jewish origin. Legacy appears to play a prominent role in college choice and can have a major impact on admission by some universities. For example, "Among applicants to elite colleges, legacy status is worth the equivalent of scoring 160 points higher on the SAT on a 400-1600-point scale" (Kahlenberg, 2010, p. 2). Hurwitz (2011) conducted research at Harvard University and examined the impact of legacy status at 30 highly selective colleges, concluding that, all other things being equal, legacy applicants got a 23.3-percentage point increase in their probability of admission. If the applicants' connection was a parent who attended the college as an undergraduate, a "primary legacy," the increase was 45.1 percentage points (Ashburn, 2011). Harvard scholar, Hurwitz, (2011) estimated the potential for admission to college

is multiplied by a factor of 3.13 if one has legacy status and is more influential than an applicant's academic strength.

Students from college-educated families often use legacy status as a means for admission to college and for integration into college experiences. Selective universities consistently use policies that showed favoritism to students whose parents were alumni, (Howell & Turner, 2004). Kahlenberg (2010), reported legacy status among college students was akin to affirmative action for the rich with Ivy League colleges admitting as many as 80 percent of students whose parents were either wealthy donors or legacy graduates. There appears to be considerable evidence that legacy status greatly increases a student's chances of being admitted. Megalli (1995) reported that legacy students double their chances of being admitted to Harvard and that these candidates often are weaker than non-legacies in SAT scores. Given this background, it appears that legacy impacts choice by students when selecting a university or college.

Socioeconomics

The ever-increasing cost of college tuition and the availability of scholarships and financial aid are important considerations for students when selecting a college/university. Socioeconomic status has been considered as "influential" during the multiple stages that applicants move through prior to making choice-decisions on selected colleges/universities (Hamrick & Hossler, 1996). Broekemier & Seshadri (2000, p. 1), stated "Students and parents expect a significant return on the sacrifices made and the time and money spent earning a college degree." (p. 1). Parents influenced their children's choices, according to the literature, and they were particularly concerned about

the cost of higher education. Cabrera & La Nasa (2000) stated, "Parental encouragement, the availability of information about college, and perceived cost-benefit analysis of attending college also shape the institution set that the student and family will seriously consider." (p. 6).

The amount of financial planning by parents for their children's college education appears to be influenced by their socio-economic status. Cabrera & La Nasa (2000) reported, "The amount of saving for college is associated with parents' own socio-economic status." (p. 8). They continued, "Reliance on financial aid varied in direct proportion with family income." (p. 8).

Noel-Levitz (2012) queried 55,813 students from over 100 public and private four-year and two-year institutions found:

> The cost of attending a college—regardless of the type of institution attended—played a role in enrollment decisions. With students attending public four-year and two-year campuses, cost was the dominant factor. At four-year private colleges, it ranked third behind academic reputation. At two-year career schools, cost—while still important with an 81 percent score—was fifth behind employment opportunities, financial aid, academic reputation, and personalized attention. Financial aid joined cost at the top of the enrollment factors and was the top issue for students at four-year private campuses. At two-year private institutions, financial aid was a close second behind employment opportunities, with nearly 86 percent saying it was important. In the 2017 National Student Satisfaction Report conducted by Noel Levitz, two of the top factors that determined students' original decisions to enroll were financial aid and cost. McPherson & Shapiro (1998) reported that African Americans and Latinos are negatively influenced by high tuition while positively motivated by financial aid (Berkner & Chavez, 1997). Economic issues— how much will their educations cost, how will they pay for it—weigh heavily on the minds of students. Even the top enrollment factor from students at career schools, future career opportunities, indicates a strong economic concern.

Based on the literature, students' choice of college is impacted by a number of factors including cost. Braddock & Hua (2006) reported that individual factors such as personal and family finances were factors in making a college or university selection. Petr & Wendell (1998) stated, "Cost apparently plays an important role in college choice" (p. 38). Kealy & Rockel (1987) reported, "A student's choice of college is based upon the relative cost and quality of all of the institutions in his or her choice set" (p. 683). Scholarships and financial aid are very important factors for many students, especially low socio-economic families. Cabrera & La Nasa (2000) suggested that "Reliance on financial aid varied in direct proportion with family income. Low-income parents were more likely to expect to go into debt to finance their children's college education than were upper-income parents (65 percent versus 40 percent)" (p. 8). It is anticipated that availability of family finances and available scholarships impact students' choice when deciding on a university/college. Rowan-Kenyon, Bell & Perna (2008) posited, "College enrollment rates vary systematically based on income and socio-economic status (SES), with lower enrollment rates for lower-income students and students with lower SES than for their higher-income and SES peers" (p. 564).

Finally, McFadden (2015) reported, "A recent survey by *The Higher Education Research Institute* shows that the availability of financial aid heavily influences college selection. Forty-eight percent (48%) reported that a financial aid offer was a "very important" factor, up from 33% in 2004." McFadden continued, "Overall cost is considered as well." Perna (2000) conducted research on college enrollment decisions and reported that financial aid that includes grants and scholarships influences African

American enrollment while loans are unrelated to their college selection. Given this literature, it is believed that socioeconomic status plays a major role in the recruitment of potential students by universities, and the choices those students will make based upon qualifications such as recruitment materials, infrastructure, and peer evaluation of the student body (e.g., "they are like me").

Individual attributes related to student gender, whether students are a legacy to the college or university, and socio-economic status have been shown throughout the literature to have an influence on factors such as university attendance.

<center>University Attributes and Related Hypotheses</center>

The university attributes of faculty/academics, athletics, and location/facilities are discussed in the following sections. Hypotheses related to university attributes are presented below:

H6: University attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT, specifically the relationships between:

- **H6a: University attributes will have a significant and positive effect on the relationship between performance expectancy and choice of attendance.**

- **H6b: Individual attributes will have a significant and positive effect on the relationship between effort expectancy and choice of attendance.**

- **H6c: Individual attributes will have a significant and positive effect on the relationship between social influence and choice of attendance.**

- **H6d: Individual attributes will have a significant and positive effect on the relationship between facilitating conditions and choice of attendance.**

Faculty/Academics

The importance of faculty and overall academics of the perspective college/university cannot be overlooked. Broekemier & Seshadri (2000) reported, "Students' futures depend heavily on the quality of education they receive from the schools they choose to attend" (p. 1). Cho, Hudley, Lee, Barry, & Kelly (2008) reported that academic quality of an institution was an important factor in influencing first-generation college students. While a number of factors such as non-academic amenities are important, research shows students are demanding expensive academic amenities, particularly when the tuition deposit is oncoming and things such as academic reputation become more relevant (Griffith & Rask, 2016).

University rankings in well-known sources such as *U.S. News and World Report* also influence students' choice, particularly top-ranked students. Bowman & Bastedo (2011) reported a significant impact of university/college rankings on students who apply to selective universities. They determined that institutions who do well in rankings see significant improvements in their first-year students and have more applications; likewise, they see a higher yield rate which leads to lower acceptance rates. University reputation and academic reputation are strong factors in college choice, according to Noel-Levitz (2013), ranking as one of the top three enrollment factors across all institution types, with at least 70 percent of students reflecting that these factors are important or very important in their decision process.

Along with institutional rankings, faculty and course offerings also play a key role in student choice to attend. Briggs (2006) posited that the development of a strong reputation in core classwork/subjects, niche markets, or classes related to highly sought-after professions such as accounting or engineering can impact institutional reputation. Directly connecting students to faculty may also prove beneficial. McFadden (2015) indicated, "If you can connect students and faculty earlier through digital, you may be able to get an early advantage" (p. 2). In a study conducted at The University of Nebraska-Lincoln by Petr and Wendel (1998), they suggested that reputation of the individual professors, and not simply the school, also helped to reflect academic merit important in the student school choices. More recently, a study by Ruffalo Noel-Levitz (2017), determined that the three important areas of student experience are (a) instructional effectiveness, (b) academic advising, and (c) student centeredness and that students also value course content, instructional excellence, and faculty quality.

Finally, the reputation of faculty and academics appear to have an important influence on both student and parent evaluations of the college or university across various demographic groups. A study from the Carnegie Foundation for the Advancement of Teaching (1986), reported that 83% of parents and 84% of high school seniors agreed that if a college has a good academic reputation, its graduates usually get better jobs. Rigor of the academic programs were suggested as a primary measure of satisfaction for students (Browne, Kaldenberg, Browne, & Brown, 1998). Further support for the importance of reputation and academic rigor was found in research by Coccari & Javalgi (1995) who concluded that Whites, Hispanics, and Asian/Pacific

students deemed the quality of faculty was important. African Americans, on the other hand, were more likely to place greater emphasis on the degree program itself. Certain aspects of teaching, including faculty organization and instructional skill, are important components in promoting student success (Braxton, Bray, & Berger, 2000).

Athletics

College athletics has been referred to as the "front door to the university" (Toma & Cross, 1998, p. 633). Budig (2007) posited: "New, multimillion-dollar facilities now seem to be the rule rather than the exception," (p. 283). Universities appear to be in a race to build the biggest and best facilities to attract outstanding college athletes and the student body in general. The University of South Carolina, for example, has built a $50 million football operations facility designed to attract high-performance recruits (Kendall, 2018).

College athletics programs have become so powerful because of the attention they garner, the funds that many generate, and the students winning programs attract. Gerdy (2002, p. 5) reported, "…intercollegiate athletics influences which students receive financial aid and thus enroll, the backgrounds and attitudes of an institution's students, its fiscal and academic priorities, its campus culture, and at Division I schools, even faculty members' salaries."

Popular collegiate sports such as football and basketball make universities/colleges highly visible to the public. Toma & Cross (1998) reported, "One external constituency whose attention high-profile intercollegiate athletics may attract is prospective students" (p. 633). They further reported that African Americans appear to

be highly influenced by the reputation of very successful athletic programs with approximately one of three African American participants reporting that a school's athletic reputation is a strong consideration in school choice.

In a study conducted by Willett (2004), athletes' most important factor for college selection was the head coach followed by academic support services and location of the campus, with winning championships also a positive factor. Sperber (2000), who conducted a study that included over 1,900 survey responses and almost 100 interviews, there is a powerful connection and synergy between big-time athletic programs and attracting and retaining students. Ruffalo Noel Levitz (2017) reported that 33 percent of students were influenced in their choice of college by the opportunity to participate in sports. In a study conducted by Judson, James & Aurand (2004), the researchers reported that male students are more influenced by athletic characteristics of a university than their female counterparts although both genders considered the quality of athletic facilities to be important.

Historically, university recruiting has been done in a physical manner, especially where the recruitment of athletes is concerned. While universities employ multiple methods to recruit and sign premier athletes, Rizzo, (n.d.) suggested that athletic recruiting methods are changing in response to increasing use of technology. The use of social media in recruiting athletes is evolving at a rapid pace due to the ubiquitous nature of technology. Because of the pervasiveness of technology and social media, recruiter-student interaction can happen any place at any time. The use of social media now allows coaches and recruiters to maintain contact with students in a much more

continuous and impressive manner, more so than ever before which can lead to improved recruiting efforts as a whole by the colleges/universities.

Location/Facilities

Facilitating conditions is one of the important factors that students consider when making a college/university selection. In his study related to college destination, Braddock & Hua (2006, p. 532) reported that academic reputation and prestige and location and proximity to students' home influence students' choice. College proximity plays an important role in college choice for many students and their parents. As noted by Turley (2009):

> The process by which students decide whether and where to attend college was based most commonly on a college-choice model that is independent of the students' geographic context. However, the ability to attend college close to home is often among the most important factors that U.S. high school students, especially minorities and the socioeconomically disadvantaged, consider (p. 126).

College or University housing as one key factor may affect choice of institutions. Proximity of the college their children choose is often an important decision for parents because of the costs of housing. Turley (2009) posited that many students and parents select an institution that allows the student to remain close to home, and many parents want their students to live at home if possible. There is considerable evidence that students were significantly influenced by the location of a university/college when making their selection of which institution to attend. McFadden (2015) reported, "Location is significant in many students' minds, either because they want to live in a certain part of the country or because of financial constraints" (p. 1). McDonough (2005)

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conducted a study by the National Association for College Admission Counseling and reported that education level, income, and travel experience of parents frequently influence how far a student is willing to travel for college. Even with these factors, 72 percent of Americans attend college in their home state.

Newman, Couturier, and Scurry (2004) stated, "Students today are more willing to search the Internet to find programs with the quality and convenience they need and are more aware of the alternative programs and institutions available to them to help meet their goals" (p. 3). To compete in today's highly competitive market, universities/colleges must be aware of their campus facilities, reputation in the job market, and amenities offered to students such as student athletic facilities, dining services, exercise accommodations and other attractions. Reputation of an institution, for example, has been shown to impact graduates' salaries in the job market. Research has shown: "...student services expenditures, which appear to play a larger role in getting a job and in what type of job you get, also lead to sizeable increases in salaries..." (Griffith & Rask, 2016, p. 1943). Universities often promote the opening of new academic buildings as a means to recruit and attract students. For example, building projects at the Georgia Regents University-Georgia Regents Health System are being created to be used as recruiting tools, as well as to handle increased class sizes, according to Phil Howard, Vice President of Facilities Services (Papandrea, 2015). The Admissions Office at Texas State University touts ubiquitous wireless access indoors and outdoors as a great marketing tool that is used to attract new students, according to Mark Hughes, Assistant Vice President for Technology Resources (2008). Not only do students consider

academic buildings and athletic facilities, they now consider choice of housing. Students have become more selective relative to their choice of housing and now take into consideration floor plans, budget options, and unlimited technological support (Popovec, 2013). The literature suggests that accommodations are very important to many students. According to Price, Matzdorf, Smith, & Agahi (2003), "In general higher quality environments do seem to have an impact on choice" (p. 219).

University attributes related to academics and faculty, athletics, and facilities/location have been shown throughout the literature to have an influence on factors such as university attendance.

Summary

Chapter II presents a literature review of previous scholarly research and highly respected industry reports related to social media and business and higher education recruiting. The chapter introduces and discusses the research that constitutes the theoretical framework for this study, The Unified Theory of Acceptance and Use of Technology Model (UTAUT) and the framework of Hamrick & Hossler (1996). An adapted model, that is specifically related to university recruiting and is based on the UTAUT theory and includes moderators from the Hamrick & Hossler (1996) research, was developed by the researcher. Finally, research hypotheses were formulated using academic literature to support the constructs and moderators of the proposed expanded model developed by the researcher which is used in the study.

Technology usage via platforms such as social media has become a major form of communication for Generation Z, and these students seeking information on universities

are turning to technology, social media, and institution's websites for critical information. Higher education institutions should therefore, pay close attention to the information that potential college students are seeking; similarly, they should examine their technology usage and social media recruiting techniques to ensure they are maximizing their efforts in a highly competitive environment. The previous literature discussed informs the research question and identified hypotheses by addressing the key frameworks in understanding technology use and factors related to sociological and economic dimensions that may ultimately influence school of choice decisions.

Further, the literature examines and explains the importance of social media as a technology outlet now being used by businesses, schools, and universities in areas such as recruitment. The role of technology and social media in both culture and across generational groups such as Generation Z and the pervasive use in everyday life is highlighted throughout the literature review and discussion. The literature thereby supports the hypotheses that technology factors in university recruitment decisions may have an influence on students making decisions relative to attendance at higher education institutions. My study will seek to provide a better understanding of how technology can be used more effectively in recruiting students to university campuses by understanding key elements that influence the student decision-making process.

CHAPTER III

METHODOLOGY

This chapter describes the proposed research design and hypotheses that have been formulated to examine major constructs and moderators related to determining students' decision-making in selecting a specific college or university. The study focuses on an adapted version of the Unified Theory of Acceptance and Use of Technology model (UTAUT) and includes moderating factors from Hamrick & Hossler's (1996) theoretical framework with the end result yielding School of Choice behavior. The UTAUT model was chosen as one of theoretical frameworks for this study because it has been widely used in studies determining the success of technology acceptance in various disciplines. Hamrick and Hossler's (1996) research was incorporated because it addressed decision-making related to college choice. The research instrument, data collection procedures, and data analysis techniques are discussed in this chapter. The site of this study was a large research university in the southeastern United States with an enrollment over 30,000 students.

Within the study, four primary overall hypotheses related to the major constructs were addressed. Eight additional hypotheses related to moderating attributes included in the two overall categories, Individual Attributes and University Attributes, were also formulated and will be addressed. First, the study examined the hypotheses related to the four major constructs of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The construct of Behavior (School of Choice) was examined as

an outcome. Then, the study extended the original UTAUT Model to include moderators related to student School of Choice, supported by the Hamrick & Hossler's (1996) research framework, and included Individual Attributes (Gender, Legacy, Socio/Economic/Scholarships) along with University Attributes (Academics/Faculty, Athletics, and Campus/Location).

The hypotheses related to the four major constructs were examined first. The first major construct, performance expectancy, was examined relative to the relationship with school of choice. Next, the second major construct of effort expectancy was examined relative to the relationship with school of choice. The third major construct of social influence was examined relative to the relationship with school of choice. Finally, the fourth major construct of facilitating conditions was examined relative to the relationship with school of choice.

This chapter is comprised of three separate sections. Section one included a review and presentation of the adapted research model and the hypotheses developed from the model that was previously presented in Chapter II. In section two, the researcher presented a discussion relative to the research design. This discussion included sampling methodology, data collection methods, the research setting, and procedures incorporated in the study. Section three addressed the development of the survey instrument and includes construct measurement procedures, content validity and construct reliability testing, and pilot testing of the measures included in the study.

<u>Research Model</u>

This study tests the four major hypotheses related to the adapted UTAUT model, the behavior construct, and eight additional hypotheses related to moderators selected for this particular study because of their relationship to student choice, supported by the Hamrick & Hossler's (1996) framework.

The research model is supported by and based on Venkatesh's work on the UTAUT model which proposes relationships between several constructs. After empirically comparing eight models (which was summarized in Chapter I) and their extensions using data from four organizations, Venkatesh et al. (2003) formulated the UTAUT model with four core constructs and four moderators of key relationships. After developing the UTAUT Model, Venkatesh et al. (2003) tested the model and found that the new model outperformed the eight individual models (adjusted R^2 of .69). The model was then confirmed using data from two new and different organizations that produced similar results (R^2 of .70). The authors subsequently reported, "UTAUT thus provides a useful tool for managers needing to assess the likelihood of success for new technology introductions and helps them understand the drivers of acceptance…" (p. 425).

The model also includes moderators on decision-making as it relates to college choice from the research of Hamrick & Hossler (1996). In that study, the authors focused on a variety of factors that align with this study. Hamrick & Hossler's work captured aspects of student choice which the adapted UTAUT model did not fully capture.

The current research study develops an adapted model that is comprised of the four core determinants on behavior from the original UTAUT Model with two proposed

multidimensional moderating variables (Individual and University). Six attributes which comprise the moderators were selected after an extensive interview with Stephanie Geyer, Vice President of Web Strategies and Interactive Marketing Services for Ruffalo Noel Levitz, who studied factors impacting college choice and Hamrick & Hossler's (1996) work on decision-making relative to school of choice.

The researcher also utilized the industry reports, "E-expectations Class of 2016: Examining Transitions from Junior to Senior Year" (Geyer & Merker, 2016) and "2017 Marketing and Student Recruitment Report of Effective Practices" (Ruffalo, Noel Levitz, 2017). Ruffalo, Noel Levitz works in conjunction with the National Center for College and University Admissions (NRCCUA). Geyer reported that the confidence level on the 2016 study was 95% with a +/- margin of error at 5%.

The researcher chose to use moderators instead of mediators because moderator variables may influence the strength of the relationship between two other variables (e.g., Performance Expectancy →Behavior). Mediators, on the other hand, explain the relationship between two variables and may have a direct impact on the outcome (Behavior) to be tested (Baron & Kenny, 1986). Moderators can be both qualitative in nature (such as gender, race, class) or quantitative in nature (level of influence). Given that the research seeks to better understand "when certain effects will hold," not "how or why such effects occur" (Baron & Kenny, 1986, p. 1176), hypothesized moderation of Individual and University attributes were created. The adapted model is depicted with the hypothesized relationships in Figure 3.1.
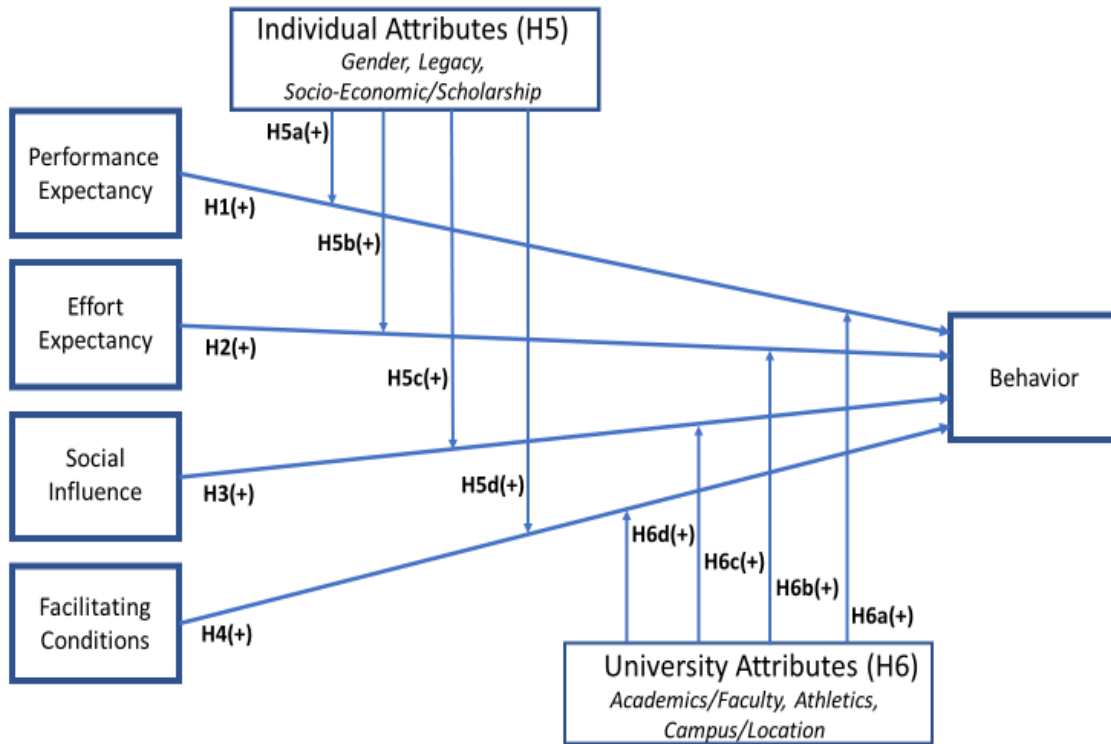
Figure 3.1. Adapted UTAUT Model for College/University School of Choice.

<u>Hypothesized Relationships</u>

The hypotheses based on the four major constructs and the additional construct of behavior (school of choice) were presented in Chapter II and are provided below:

<u>Hypothesis H1 (Performance Expectancy)</u>

When using university/college recruiting systems, there is a positive relationship between performance expectancy and students' school of choice.

<u>Hypothesis H2 (Effort Expectancy)</u>

When using university/college recruiting systems, there is a positive relationship between effort expectancy and students' school of choice.

Hypothesis H3 (Social influence)

When using university/college recruiting systems, there is a positive relationship between social influence and students' school of choice.

Hypothesis H4 (Facilitating Conditions)

When using university/college recruiting systems, there is a positive relationship between facilitating conditions and students' school of choice.

The hypotheses regarding the influence of legacy, gender, socio/ economic/scholarships, faculty/academics, athletics, and campus/location on the primary construct relationships were presented in Chapter II and are provided below:

H5: Individual attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT, specifically:

- **H5a: The relationship between performance expectancy and choice of attendance.**

- **H5b: The relationship between effort expectancy and choice of attendance.**

- **H5c: The relationship between social influence and choice of attendance.**

- **H5d: The relationship between facilitating conditions and choice of attendance.**

H6:   University attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT, specifically:

- **H6a: The relationship between performance expectancy and choice of attendance.**

- **H6b:** **The relationship between effort expectancy and choice of attendance.**

- **H6c: The relationship between social influence and choice of attendance.**

- **H6d: The relationship between facilitating conditions and choice of attendance.**

Research Design

The study employed a combined qualitative and quantitative design to collect data related to college choice from university freshmen. Prior to the deployment of a self-administered web-based survey for the main study, one focus group session was conducted using a sample of seven freshmen students and a loosely structured format as part of a qualitative pilot study to help frame the survey questions. The focus group session allowed the researcher to gain ideas about college recruitment from the perspective of the students, discover new ideas or topics not previously considered, and explore potential issues that could be further inquired throughout the survey (Zikmund, Babin, & Carr, 2013). This technique also allowed for respondents to provide insight from others' ideas and for flexibility in question and answer sessions to provide rich data regarding the research objectives. Throughout this process, the researcher was careful to ensure that no participant was allowed to dominate the conversation and that participants provided full responses in order yield data (Zikmund et al., 2013).

Hamrick & Hossler's (1996) work was particularly useful through this aspect of data analysis. Their focus on social factors aligned with the responses given by participants. It was important to use data from this step to fully examine the research question for this study.

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For the main study, an online survey was completed. The online survey methodology had several strengths including low administration cost, potential speed and timeliness of responses (Evans & Mathur, 2005), and the ability to control the breadth of sampling. It has been suggested by Kerlinger & Lee (2000) that use of survey research is best for instances when researchers wish to gain knowledge on personal and social facts, attitude, behaviors and intentions. Surveys have long been thought to adequately tap the feelings of the public so as long as error is reduced and that researchers do not try to overcome a poorly written survey through an increase in sample size (Fowler Jr., 2014). Survey research is generally considered accurate within an appropriate sampling error (Kerlinger & Lee, 2000). Further, online surveys are advantageous over postal surveys because of the fact that they are less likely to produce missing demographic data (McDonald & Adam, 2003). In addition, online surveys allow the participants to complete the document at their convenience (Churchill & Iacobucci, 2006).

Survey research, however, is not without potential weaknesses or flaws. Breadth is often sacrificed for depth about a specific set of factors, and in some cases, respondents answer in a manner that they wish to be true rather than what is deemed factual based upon their circumstances (Kerlinger & Lee, 2000). Like other data collection forms, quality of data collected is in direct relationship to the quality of the survey questions, and the possibility of bias is real if the researcher does not adequately address this prior to deployment (Zikmund et al., 2013). Finally, length of survey may cause some respondents to exit prior to full completion (Zikmund et al., 2013; Kerlinger & Lee,

2000). Overall, however, because of the aforementioned advantages that survey research can provide, the researcher made the decision to use an online survey for this study.

Research Setting

This study was conducted at a large research university located in the Southeast. The university has over 51,000 students on all its campuses, over 30,000 on the main campus, and a population of approximately 5,000 freshmen students from which to draw a sample.

Focus Group

A qualitative interview methodology was utilized for the seven students participating in the focus group prior to deployment of the pilot test study questionnaire. This part of the study incorporated the work of Hamrick & Hossler (2016) and added other dimensions to the adapted UTAUT model that were used to analyze the survey element of this scholarship. The interview lasted approximately 45-60 minutes and was open-ended, where a baseline question was asked "Can you please explain how you decided to attend the University of South Carolina?" Subsequent questions emerged from a combination of a few pre-determined topics and the interviewee responses. Topics and questions covered were provided in Appendix A.

With participants' permission, and after Institutional Review Board (IRB) approval, the interview was audio recorded to ensure accuracy in transcription of the data. Data transcription was completed verbatim. The names of the respondents were held as confidential in any write-up and this was communicated before the interview

began. Participants were told that they may "end the interview at any time without penalty and without loss of benefits to which you are entitled." Participants were also asked to sign a consent form prior to the interview and were given the opportunity to review any subsequent transcripts for accuracy. Consent for follow-up questioning was received via written and verbal agreement between the interviewer and interviewee prior to the baseline question being asked.

Data were analyzed for emerging concepts of student decision-making related to their choice of school attendance, the means by which they used to research the school, and possible influences on their choice. Open coding was used to identify codes with emerged into themes.

Pilot Testing

For the pilot test, a convenience sample of approximately 75 students was drawn from several classes, as the researcher provided links to Qualtrics, an online survey platform, to participants. In employing a convenience sample, the researcher engaged participants who were selected strictly on the basis of availability and the flexibility of the faculty members whose students are involved. Three $50 Amazon gift cards were offered through a drawing for all participants to encourage participation. Huck (2012) stated that a convenience sample is one in which the investigator simply collects data from participants who might be readily available and who can be recruited to participate in the pilot study. A convenience sample contains participants who are similar to the sample the researcher intends to use.

Sampling Frame

The sampling frame is a list that identifies the participants who will be included in the population (Huck, 2012). In this study, the sampling frame was comprised of members of the Freshman class at the university where the study was conducted. The researcher identified a target population of 731 students to participate in the study based upon student class enrollment. Freshmen students were selected because they are most likely to remember the recruiting techniques, websites, social media, and other materials and technology to which they were exposed. To protect the rights of the participants, a consent form was made available in the beginning of the survey that is designed to protect participants' confidentiality and anonymity.

Data Collection

Data collection for the main quantitative study employed an electronic survey using Qualtrics which was deemed the most efficient, effective, and accurate method to collect data. Qualtrics is a subscription software service that is useful in collecting and analyzing data for market research, customer satisfaction, and website feedback. Contact information for the target population was managed through an electronic data distribution list held by the institution. All participants had access to the internet which was pre-determined by the researcher. The electronic survey was sent to all members of the target population in the Fall Semester 2019 and included an introductory message from the researcher. The survey was sent two more times, at two-week intervals, to those members of the target population who did not respond the first time. Survey data was collected anonymously, and the participants' identities were anonymous.

When meeting with the Director of Admissions, the researcher provided information including the details of the survey, the use of Qualtrics, and how students' identity will be protected. A drawing of ten $50 Amazon gift cards for the participating students served as an incentive to participate. In addition to the primary data collected by the survey, demographic data was collected that provided further insight to the participants' backgrounds. The questions on the survey were designed using methods that included Likert-based measurement scales to measure the extent of influence by selected methods of recruiting.

Sample

The sample for this study included several demographic characteristics such as age, gender, race/ethnicity, parents' household income, and education level of the parents. The researcher followed sampling theory developed by methodologists such as Babbie (2007) and Fowler (2009). First, the population was identified, the 2018-19 incoming freshmen class. The Director of Admissions granted permission to survey these students. Subsequently a population of 731 students was identified through the university with which the researcher was associated. The sample design for this population was a single-stage format in which the participants were surveyed using electronic methodology. Participants were "screened out" if they did not enter the selected university in the current academic year or if there had been a timeframe of more than one year since they had received or researched recruiting materials. They also had to be currently enrolled as a freshman to complete the survey.

Procedures

At the beginning of the survey, the participants were provided information for the researcher and Clemson University. This paragraph was followed with a screening question that served to eliminate those students who are not eligible to participate. The survey inquired about demographic attributes such as age, gender, ethnicity, home state or country. The survey items included questions from each of the major constructs of Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions as well as Behavior measures (e.g., School of Choice) and from the Individual Attributes of gender, legacy, and socio-economic and University Attributes of academics/faculty, athletics, and campus/location.

Approval was secured from the Director of Admissions, and the data collection process followed IRB approval. An email/recruitment letter was distributed to the sample pool by the researcher informing the participants how to proceed. The informed consent form was incorporated into the first page of the Qualtrics questionnaire; the informed consent included all IRB requirements, advising the participants that their participation is strictly voluntary. Participants were also given the opportunity to opt out if they do not agree to the terms in the consent form. They were also informed that they can terminate their participation at any stage of the process. The researcher used Qualtrics because it is well-known for its usefulness and integrity in conducting this type of research.

<u>Instrument/Measurement Development</u>

The measurement scales used on the survey were derived from prior literature in which the UTAUT theory was employed and in conjunction with Hamrick & Hossler's (1996) research on decision-making relative to college choice. The final survey questions were created after incorporating information gleaned from the pilot test survey responses. The study employed an online survey using a Qualtrics platform. The survey consisted of approximately 25 measurement items related to the major constructs and moderators and nine demographic questions which were tested in a pilot study. The items were developed from a number of studies related to UTAUT and key industry surveys conducted in conjunction with potential college students.

Items were adapted from the original UTAUT research and basic constructs to reflect the same constructs but with applications to college choice and related moderators. Items related to the survey constructs and moderators employed a six-point, Likert-type scale to measure the responses which also included an option for "No opinion". The items used by the researcher were closely related to the original UTAUT but adapted to reflect college choice moderators. Items for the survey also included moderators selected from Hamrick & Hossler's (1996) research on decision-making relative to college choice.

Sources for developing the adapted questions were drawn from prior studies based on UTAUT and college choice and Hamrick & Hossler's (1996) research. The survey, which took about 15 minutes to complete, was pilot tested using a convenience sample of approximately 50 students, and defective questions were eliminated.

Participants who were eliminated included those who submitted surveys with missing data or who did not complete the survey in its entirety.

Assessing Measurement Properties

Validity refers to the extent that concepts are measured accurately, according to Heale & Twycross (2015) who stated, "Construct validity has become the overriding objective in validity, and it has focused on whether the scores serve a useful purpose and have positive consequences when they are used in practice" (p. 208). Construct validity is based on items effectively measuring hypothetical constructs. The second measure that is important to a quantitative study is reliability. Heale & Twycross (2015) described reliability as the accuracy of an instrument. If an instrument has reliability, it consistently produces the same results if used in the same situation. In addition, reliability is based on consistency in test administration.

The researcher used several external academics who have extensive research experience for face validity in determining if the instrument measures the concept intended by the survey. In addition, the researcher pilot tested the survey to examine the validity of the questions. Survey items that were deemed to be poor questions or confusing to the participants of the pilot study were rewritten or eliminated and replaced. Changes to the pilot test questions were listed in the dissertation in a chart titled, "Key Revisions to Questionnaire."

For purposes of this research, Cronbach's α was used to determine the internal consistency and reliability of the instrument. In this test, the average of all correlations in every combination of split-halves is determined. Instruments with questions that have

more than two responses can be used in this test. The Cronbach's α result is a number between 0 and 1. An acceptable reliability score is one that is .7 and higher (Heale & Twycross, 2015, p. 67).

Development of Measurements for Major Constructs

The measurements of the major constructs for this study were developed using similar measurements from several major studies that employed UTAUT as the theoretical framework and Hamrick & Hossler's (1996) research on decision-making as it applies to college choice. The instrument was divided into five sections related to the major constructs, two sections that included questions used for moderation testing, and one section based on demographics. All items in the survey were measured on a Likert scale ranging from (1) 'Strongly disagree' to (5) 'Strongly disagree with a sixth option (6) for 'No Opinion'. Additionally, demographics in which the questions are categorical in nature were also collected.

Alpha values were tested after the pilot test has been completed using Cronbach's coefficient alpha (hereby represented as α), a commonly reported statistical measure of internal consistency reliability (Kline, 2005). Construct reliabilities that did not meet the baseline .70 criteria for adequate reliability were dropped from future analysis. The variance explained (adjusted R^2 = .70) in the original UTAUT model (Venkatesh et al., 2003) has suggested that UTAUT is a useful tool for managers needing to assess the likelihood of success for new technology introductions and helps them understand the drivers of acceptance…" (Venkatesh, 2003, p. 425).

To measure *performance expectancy* related to college choice, five items were used and adapted from the studies of Venkatesh et al. (2003) (α = .91), Wang, Wu, & Wang (2009) (α = .95), and Marchewke, Liu, & Kostiwa (2007) (α = .84) using Likert-scale items. Items from these original studies were adapted slightly to include the context of college choice (e.g., "I believe that technology was helpful in identifying appropriate universities or colleges for me.").

To measure *effort expectancy* related to college choice, five items based on data from the studies of Venkatesh et al. (2003) (α = .92) and Marchewka et al. (2007) (α = .89) were used and measured on a Likert scale. Items from the original studies were adapted slightly to include the context of college choice (e.g., "I believe that technology facilitated the process of identifying the best institutional match".).

To measure *social influence* related to college choice, five items based on the data from the studies of Wang et al. (2009) (α = .94), Marchewka et al. (2007) (α = .77), and Venkatesh et al. (2003) (α = .91), were used and measured on a Likert scale. Items from the original studies were adapted slightly to include the context of college choice, (e.g., "My parents thought I should use technology in my college search").

To measure *facilitating conditions,* five items based on the data from the studies of Venkatesh et al. (2003) (α = .87), Khechine, Lakhal, Pascot, & Bytha (2014) (α = .74), and Rufalo Noel Levitz (2017) were used and measured on a Likert scale. Items from the original studies were adapted slightly to include the context of college choice, (e.g., "The reputation of the faculty/academics did not influence my choice of institution.").

To measure *behavior,* five items based on data from the studies of Venkatesh et al. (2003) (α = .90), Akbar (2013) (α = .93), and Noel-Levitz (2013) were used and measured on a Likert scale. Items from the original studies were adapted to include the context of college choice, (e.g., "I am attending my school of choice, based on help from technology.").

Development of Measurements for Moderators

The measurements of the major constructs for this study were developed using similar measurements from several major studies. The survey included two sections which measure moderators related to college choice. The moderators were drawn from several studies including Hamrick & Hossler's (1996) research which included variables such as gender, socioeconomics and parental influence on postsecondary decision-making for students. Each section included several items related to Individual Attributes (gender, legacy, and socioeconomic/scholarship) and University Attributes (faculty/academics, campus/location, and athletics).

The section of the survey related to Individual Attributes (gender, legacy, and socioeconomic/scholarship) included nine items, each measured using a Likert-type scale. To measure *gender,* three items from the studies of Hamrick & Hossler (1996), Khechine, Lakhal, Pascot, & Bytha (2014) and Noel-Levitz (2013) were used Items based on data from the original studies were adapted to include the context of college choice, (e.g. "Gender of the student body did not have any influence on my college choice."). To measure *legacy,* three items from the study of Hamrick & Hossler (1996) which considered parental influence, and from Hurwitz (2011) and Noel-Levitz (2013)

were used. Items based on data from the original study were adapted to include the context of college choice, (e.g., "It is important to attend a university where my family attended."). To measure *socioeconomic/scholarship,* three items from the studies of Hamrick & Hossler (1996) and Noel-Levitz (2015) were used. Items based on data from the original study will be adapted to include the context of college choice, (e.g. "Economic reasons influenced my choice of college/university").

The section of the survey related to University Attributes (faculty/academics, campus/location, and athletics) included nine items and used the same Likert-type scale. To measure *faculty/academics,* three items from the studies of Furukawa (2011) and Noel-Levitz (2013) were used. Items based on data from the original studies were adapted to include the context of college choice, (e.g., "Academic reputation of the institution influenced my decision to attend my college/university.").

To measure *athletics,* three items from a study by Toma & Cross (1998) were used. Items based on the original study were adapted slightly to include the context of college choice (e.g. "The athletics program of my institution played no role in the selection of my college/university"). Finally, to measure *campus location/facilities,* three items from the study of Pace & Kuh (1998) were used. Items based on the original study were adapted to include the context of college choice, (e.g., "The proximity of the campus location influenced my decision to attend my selected college/university").

The following table, Table 3.1, provides a summary of the development of the Demographic Measures within the survey.

Table 3.2 provides a summary of the construct measures for the final survey.

Table 3.1. Summary of Demographic Measures.

Gender
Race/Ethnicity
First Generation Student
Highest Level of Education/Mother
Highest Level of Education/Father

Table 3.2. Summary of Construct Measures for Survey.

Construct	Original Definition	Adapted Definition
Performance Expectancy (PE)	**The degree to which an individual believes that using the system will help him or her to attain gains in job performance.**	**The degree to which an individual believes that using the system will help him or her to be able to identify the most appropriate university/college.**
PE1	Technology was helpful in identifying appropriate universities or colleges for me.	
PE2	Using technology helped me make my college/university decision more quickly.	
PE3	The use of technology accelerated my decision in identifying the best college/university for me.	
PE4	Using technology helped me find the right information about my school of choice.	
PE5	Using technology improved my ability to identify the best institution for me.	
Effort Expectancy (EE)	**The degree of ease associated with the system**	**The degree to which an individual believes that using technology and university websites will make the college search easier.**
EE1	Technology facilitated the process of identifying the best institutional match	
EE2	Using technology made it easier to identify quality information	
EE3	Accessing information regarding different institutions was easy when using technology	
EE4	Using technology was easier to manage than other recruiting methods	
EE5	Using technology in my college search was too time consuming	

Table 3.2. Summary of Construct Measures for Survey. (continued)

Construct	Original Definition	Adapted Definition
Social Influence (SI)	**The extent to which an individual perceives that important others believe he or she should use the system.**	**The degree to which an individual perceives that important others including peers, counselors, parents, and teachers believe he or she should use the system.**
SI1	My peers thought I should use technology during my college/university recruiting process	
SI2	My parents thought I should use technology in my college search	
SI3	My friends did not influence my choice to use technology	
SI4	My counselors influenced my choice to use technology	
SI5	My teachers thought I should use technology in identifying the best institutional match for me	
Facilitating Conditions (FC)	**The degree to which an individual believes that an organization and technical infrastructure exists to support the system.**	**The degree to which an individual believes that a university's organization and infrastructure will support use of the system (examples: staff, images of campus, housing, social areas, faculty, etc.)**
FC1	Digital images of campus influenced my decision when selecting a college/university	
FC2	The reputation of the faculty/academics did not influence my choice of institution	
FC3	The reputation of the athletics program influenced my choice of institution	
FC4	Appealing campus housing influenced my decision when selecting a college/university	
FC5	The cost of tuition influenced my choice of institution	
Behavior (B)	**The degree to which an individual's behavior is influenced by preceding factors and constructs.**	**The degree to which an individual's choice of university/college is influenced by preceding factors and constructs.**
B1	Technology influenced my decision to attend my school of choice.	
B2	I am attending my school of choice based on information provided by technology.	
B3	Without the use of technology, I may not have chosen my final school of choice.	
B4	I can continue to use technology to monitor school information.	

Table 3.3 identifies the survey questions related to the moderating dimensions. Demographic measures were based on the research of Hamrick & Hossler (1996) relative to decision-making as related to college choice. Additionally, factors from the Noel-Levitz survey, "2016 e-Expectations Report." Noel-Levitz reported a confidence interval of 95% with a +/- margin of error at 5 were incorporated into the survey as well. A final version of the main study questionnaire can be seen in Appendix A.

<p style="text-align:center">Data Analysis and Interpretation</p>

Analyzing qualitative data, as part of the pilot study process, is commonly based on the concept of trustworthiness. The trustworthiness of qualitative content analysis is often addressed by using terms such as *credibility, dependability, conformability, transferability, and authenticit*y and can be presented using previous studies, methodology books and reports, and the researcher's personal experiences (Elo, Kaarianinen, Kanste, Polkki, Utriaine, & Kyngas, 2014). Elo et al. (2014) recommended three stages of study: Preparation phase, Organization phase, and Reporting phase. I followed the previously mentioned three stages in conducting the focus group portion of this study which I conducted with seven freshmen who were attending several different institutions.

The analysis package used in the main study survey was SPSS 25.0, which provides advanced analysis of statistics, ease of use and flexibility in the package, the ability to complete multi-group testing, and provided understanding of relationships between concepts or variables (IBM.com, n.d.). Multiple regression analysis, helped to predict the outcome variable from several predictor variables (Field, 2009), was

Table 3.3. Summary of Moderator Dimensions.

Moderator	Original Definition	Adapted Definition
Individual Attributes	**Dimensions that are related to and influence an individual's choices.**	**Dimensions that are related to and influence an individual's institution of choice.**
Gender (G)		
G1	Gender influenced my college choice	
G2	Gender of the student body did not have any influence on my school of choice	
Legacy (L)		
L1	It is important to attend a university where my family attended	
L2	I prefer to attend a college or university where my parents attended	
Socio-economic/Scholarships (SS)		
SS1	Receiving a scholarship influenced my choice of college/university	
SS2	Economic reasons influenced my choice of college/university	
University Attributes	**Dimensions that are related to a university/college and influence a person's choices.**	**Dimensions that are related to a university and influence a student's choice of institution.**
Faculty/Academics (FA)		
FA1	Academic reputation of the institution influenced my decision to attend my college/university	
FA2	The quality of the program and major I was seeking influenced my decision to attend my college/university	
Athletics		
AT1	The strength of our university's athletics program influenced my decision to attend my college/university	
AT2	The athletics program of my institution played no role in the selection of my college/university	
Location/Facilities (L)		
L1	The proximity of the campus location did not influence my decision to attend my college/university	
L2	The campus facilities (e.g., dorms, health center, academic buildings) influenced my decision to attend my chosen college/university	

employed and used to test the four primary hypotheses of performance expectancy →
behavior (H1), effort expectancy → behavior (H2), social influence → behavior (H3),
and facilitating conditions → behavior (H4). Scores of the questions related to the five
primary constructs were summated and combined into one value so that they may be
tested for comparative purposes via multiple regression. Descriptive analysis was
completed and reported on the demographic information from the online survey.

For testing of the proposed moderators (H5 and H6), separate scores from the
individual measurement items for Individual Attributes (H5) and University Attributes
(H6) were combined into one score for each of the two moderators. This combined
variable was then entered into the regression equation to determine any potential
significant effects from the hypothesized moderators.

Summary

Chapter III detailed the research methodology that was used to test the major
hypotheses related to the constructs and the related moderators. Section one of the
Chapter III addressed the methodology, research model, adapted model and hypothesized
relationships that were previously detailed in Chapter II. Section two of this chapter
described the current research design and methodology including topics including
research setting, pilot testing, sampling frame, and data collection procedures. The last
section of this chapter, section three, detailed the procedures used in developing the
instrument, assessment of measurement properties and includes three tables, Tables 3.1,
3.2, and 3.3, listing the original definition of each construct and moderator and the
adapted definitions of each construct and moderator.

CHAPTER IV

RESULTS

Introduction

The purpose of the study was to examine factors that may influence students' college selection process. The results chapter includes descriptive statistics based on collected demographic data and analysis of the research question and hypotheses. The chapter starts with a discussion of the focus group and results, along with the pilot study results and the main study results. Following this, a chapter summary is provided before moving into a discussion of the results, limitations, and conclusion in Chapter V.

Focus Group Questions, Administration, and Findings

Prior to creation of a pilot study questionnaire, a convenience sample focus group was conducted that consisted of seven freshmen who were attending several different colleges and universities throughout the Southeast including five research institutions (four of which were public and one which was private) and one technical college. The focus group was organized in order to help determine key concepts and issues to address within the survey.

Students were selected based upon 1) their attendance at various colleges/universities, 2) they were all starting their Freshmen year of college, and 3) they were selected based on referrals from others who previously agreed to participate in the study. Of the seven students, four were women and three were men. Two students identified as first-generation college students. The purpose of the focus group was to

identify questions that might need to be added to the survey or rephrased for better comprehension or to elicit additional information. One of the primary advantages of focus groups is the "opportunity to observe interaction on a topic in a limited period of time..." (Morgan, 1996. p. 6).

Participants were invited to participate and were served lunch prior to beginning the questioning phase. The researcher conducted the focus group using a tape recorder to record the participants' contributions. At the beginning of the focus group, the purpose of the research was explained, the role of the focus group component addressed, and the significance of their responses was highlighted to the participants. Participants were assured that their responses would be anonymous and that the recording would be held in confidence per Institutional Review Board (IRB) standards.

When conducting this focus group, a structured set of questions was used, and the questions are listed below:

1. Tell me about your college recruiting experience. How did it start?

2. When did recruiting start for you?

3. How were you contacted by universities and colleges?

4. What led you to choose your college/university?

5. Did you have to narrow down your choices? If so, what factors did you use?

6. Is there one factor that influenced your decision more than others?

7. Are you a first-generation college student?

8. What level of education do your parent/parents have?

9. Did you use social media to research colleges/universities?

10. Did social media influence your decision to choose one college over another?

11. Is there anything else that you would like to share concerning your choice and how you selected one college over another?

The focus group interview lasted approximately 90 minutes. Data collected from the participants in the focus group informed the development of the survey for the second phase of this study. Their contributions included providing insight relative to their decision-making processes as related to college choice. During the discussion, participants shared that their decisions in some cases were influenced by friends attending other institutions. The researcher also learned that some of the students were the first from their family to attend college.

When one of the focus group participants shared that they were seeking an athletic scholarship, participants discussed the perceived quality of the athletics program as a potential factor for selecting a university. All of the focus group participants conveyed the importance of financial factors and their choice of attending college. Table 4.1 presents exemplar quotes from the focus group.

Pilot Study

Prior to implementing the main survey questionnaire, and after the focus group portion was analyzed, a pilot study was created to test the validity and reliability of the survey that was designed to measure students' behavior relative to their school of choice. A pilot study is a small-scale version of the study's major instrument in preparation for a larger study and serves as a pretest for the research instrument (Hassan, Schattner, &

Table 4.1. Summary of Focus Group Questions, Themes, and Exemplar Quotes.

Focus Group Question	Themes	Exemplar Quote
Tell me about your college recruiting experience. How did it start?	Social media, online searching, campus visits, college/university outreach (brochures, etc.), recruitment (academics, sports, etc.)	*I received emails and brochures. I was interested in an athletic scholarship so I researched smaller schools online to try to determine my chances of getting a scholarship.*
When did recruiting start for you?	Junior year, eighth grade, ninth grade, junior high school	*I was recruited for soccer. Most of my friends weren't recruited until Junior year.*
How were you contacted by universities and colleges?	Email, college fairs, sports camps, guidance counselor, brochures, phone calls, text messages	*After completing applications, I was contacted by email and university websites. I got some phone calls.*
What led you to choose your college / university?	Scholarship money, athletic scholarship, sports teams, close to home, friends were attending.	*I got a really good scholarship where my parents attended so I decided to go there.*
Did you have to narrow down your choices? If so, what factors did you use?	The campus I liked best, scholarships, parents attended, community college to save money, close to home.	*A full ride was the biggest factor, and great athletic teams influenced my choice.*
Is there one factor that influenced your decision more than others?	Cost/scholarship offer, school reputation, close to home, athletics, academics, not getting admitted to preferred school.	*The factors that influenced me most were how much the college cost, how much scholarship money I got, and the reputation of the college.*

Table 4.1. Summary of Focus Group Questions, Themes, and Exemplar Quotes.
(continued)

Focus Group Question	Themes	Exemplar Quote
Are you a first-generation college student?	Two students were first generation. Most students' parents attended college and had degrees.	*Yes, I am first-generation and this made my choice difficult because my parents couldn't advise me very much.*
What level of education do your parent/parents have?	Most students' parents attended college and had degrees.	*My Mother has a bachelor's degree and my Dad has a law degree.*
Did you use social media to research colleges/universities?	Used social media to learn about schools, especially out-of-state schools, researched majors and programs, researched athletic programs.	*I used social media to research small schools where I might be able to play basketball.*
Did social media influence your decision to choose one college over another?	Helped me learn more about universities and the programs they offered. I applied online. Websites were very helpful.	*My choice was based on a soccer scholarship, but social media helped me decide which scholarship I wanted because I learned a lot from websites.*
Is there anything else that you would like to share concerning your choice and how you selected one college over another?	Scholarships influenced most, beach close by, went to community college to save money, I liked the campus and I felt safe there.	*I wish I had applied to more colleges. I have very good grades, but my SAT score wasn't as strong, and I think I restricted myself to one college because I didn't think I would get enough scholarship money to go out of state.*

Mazza, 2006).   Based upon results of the focus group inquiry, questions related to

financial considerations, first generation student status, and the role of athletics/academic

scholarships were included as part of the demographic section within the pilot study.

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The pilot survey was designed after an extensive review of the literature and from focus group data. Pilot studies are also used to help address potential concerns of reliability and validity of the proposed questionnaire measures prior to distribution to a main study population (Kimberlin & Winterstein, 2008). The pilot study for this research incorporated several variables. Seventy-five students participated in the pilot study which was comprised of two sets of hypothesized moderators—Individual Attributes (gender, legacy, socio-economic/scholarship) and University Attributes (faculty/academics, campus/location, and athletics) and five constructs as part of the hypothesized model (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions and Behavior).

Reliability

Following completion of the students' surveys, coding of the variables was completed to match the Proposed Construct Measures. The researcher utilized SPSS 25.0 to analyze the students' surveys and Cronbach's alpha statistic ($\alpha = .675$) calculated to measure for internal consistency. Cronbach's alpha was developed by Lee Cronbach in 1951 and was designed to measure the internal consistency of a test or scale (Tavakoi & Dennick, 2011). "Validity is concerned with the extent to which an instrument measures what it is intended to measure. Reliability is concerned with the ability of an instrument to measure consistently" (Tavakoi & Dennick, 2011, p. 53).

A reliability coefficient of .70 or higher is considered acceptable in social science research with .80 considered "good" (Kline, 2005). Results from the reliability analysis showed that all the constructs had good internal consistency except for the construct of

Behavior. Results indicated that two constructs (Performance Expectancy at .856 and Social Influence at .747) exceeded expectations of .70. Three of the five constructs did not exhibit good internal consistency.

Two of the constructs were Effort Expectancy (.526) and Facilitating Conditions (.641). The construct of Behavior was also rewritten and analyzed with reverse coding, and the Cronbach's alpha measurement was still low. Without reverse codes, Cronbach's alpha for Behavior was .409, and using reverse codes, Cronbach's alpha was .245. With the advice of a senior researcher, the four survey questions related to the behavior construct were reworded and an 'attention check' question was also added midway through the survey to help reduce common response bias. "Attention checks have become increasingly popular in survey research as a means to filter out careless respondents" (Kung, Kwok, & Brown, 2018).

Main Study

The study was conducted by surveying a convenience sample of students from the freshman class at a major research university in the Southeast. A total of 731 students were selected to receive the main survey, conveniently selected with the help of university advising and university faculty in identifying possible classes to participate. The survey was distributed by e-mail. Over the course of a two-month period, 427 responded, and of those responding, a final sample of 341 usable surveys was analyzed.

Reliability

After reviewing completed surveys available for analysis, reliability was assessed. Results of the reliability statistics for the main study are provided in Table 4.2: Four of the five proposed constructs reflected an alpha statistic of .70 (rounded) or higher, thereby indicating sufficient reliability of the measures. For the construct of Facilitating Conditions, the alpha statistic (α = .675) was slightly below the .70 recommended threshold as noted by Kline (2005) yet was kept in the final model as Schmitt (1996) noted that other measurement properties, "such as meaningful content coverage of some domain" (p. 352) could be useful when measures reflect a lower reliability between them. Given this, and previous supporting literature on the importance of facilitating conditions (Akbar, 2013), the researcher decided to retain the four items measures for this construct.

Demographic Information/Tables with Frequencies and Percentages

Demographic data were collected as part of the survey and analyzed to provide information about the participants in the study. The following demographic data was collected: (a) gender, (b) race/ethnicity, (c) parent attend college/university, (d) first generation student status, (e) highest level of education of father, and (f) highest level of education of mother. Table 4.3 includes each demographic variable, the frequency per variable (n), and the percentage of frequency for each variable (%). Approximately 60% of the respondents were female and 40% were male. The current enrollment at the institution where this study was conducted is 53% female and 47% male. Eighty percent (80%) of the respondents identified as White (Caucasian; 273 total) while 7.6% identified

Table 4.2. Reliability.

Construct	Cronbach's Alpha (α) on Standardized Items	No. of Items
Performance Expectancy (PE)	.872	5
Effort Expectancy (EE)	.725	5
Social Influence (SI)	.697	5
Facilitating Conditions (FC)	.675	4
Behavior (B)	.815	4

Table 4.3. Descriptive Summary of Respondents.

Sociodemographic Variables	n	%
Gender		
Male	137	40.2
Female	204	50.8
Other	0	0.0
Race/Ethnicity		
White (Caucasian)	273	80.1
Black (African American)	26	7.6
Hispanic (includes Latino or Spanish)	15	4.4
Asian (Including Pacific Islander)	18	5.3
American Indian (includes Alaska native)	0	0.0
Multiracial (more than one race)	9	2.6
Other (Please identify)	0	0.0
Parents Attend College/University		
Yes	297	87.1
No	43	12.6
Unsure	1	0.3
First Generation College Student		
Yes	38	11.1
No	289	84.8
Unsure	14	4.1
Highest Level of Education Father		
Elementary School	0	0.0
Middle School	1	0.3

Table 4.3. Descriptive Summary of Respondents. (continued)

Sociodemographic Variables	n	%
Highest Level of Education Father (cont.)		
High School	51	15.0
G.E.D.	6	1.8
Associate Degree	27	7.9
Baccalaureate Degree	144	42.2
Masters' Degree	76	22.3
Terminal Degree (including Ed.D., J.D., M.D., & Ph.D.)	27	7.9
Do not know	9	2.6
Highest Level of Education Mother		
Elementary School	0	0.0
Middle School	1	0.3
High School	55	16.1
G.E.D.	4	1.2
Associate Degree	42	12.3
Baccalaureate Degree	158	46.3
Masters' Degree	64	18.8
Terminal Degree (including Ed.D., J.D., M.D., & Ph.D.)	14	4.1
Do not know	3	0.9

as Black (African American; 26 total), 4.40% identified as Hispanic (Latino or Spanish;

15 total), 5.28% identified as Asian (Pacific Islander; 18 total), and 2.64% identified as

Multiracial (More than one race; nine total). The university where this research was

conducted reported the following data for the categories in the preceding sentence:

White (Caucasian; 76.7%), Black (African American; 10.2%), Hispanic (Latino or

Spanish; 4%), Asian (Pacific Islander; 2.4%) and Multiracial (More than one race; 3.2%).

Parental college/university attendance is also reported. Two hundred ninety-seven

(87.10%) students reported that their parents attended a college/university while 43

students (12.61%) reported that their parents did not attend a college/university. Only

one student (.29%) reported being unsure about parental college attendance.

In terms of first-generation student status, 38 students (11.14%) were first generation college students while 289 (84.75%) were not. A total of 14 students (4.11%) were unsure. The highest level of education of the father was over 70% as having at least a baccalaureate degree. Similarly, almost 70% of the respondents' mothers had at least a baccalaureate degree. Table 4.3 provides a descriptive summary of respondents.

Additional sociodemographic information was collected as part of the survey which helped to address the research question: ***What factors influence student college selection process?*** Table 4.4. indicates all of the methods by which students were contacted during the recruitment process, with e-mail (n = 301; 88.3%) being the most common method of contact with the students whereas Snapchat was only utilized four times (1.2%) by recruiters as reflected by the respondents.

When asked within the survey to indicate "By which recruiting methods were you MOST contacted?" (see Table 4.5), e-mail was the most identified manner by which students were primarily contacted, with mail, brochures, and campus tours next. Social media was only identified by only 13 respondents (3.8%) as being the method most used to recruit them. Table 4.5 reports contact methods during recruitment.

In helping to identify student perceptions of social media recruiting methods "most effective" for potential students, the survey considered seven commonly used social media platforms and asked the respondents to rank the most effective with a "1" rating and least effective with a "7" ranking. Table 4.6 indicates the ranking of "most effective" for each of the seven platforms with Instagram being considered most effective (n=120; 35.2%) and Snapchat least effective (n=9; 2.6%).

Table 4.4. Contact Method During Recruitment (all).

Method	n	%
E-mail	301	88.3
Campus Tour	226	66.3
Brochures	217	63.6
Postcard	146	42.8
Phone Call	96	28.2
Campus Tour	54	15.8
Instagram	43	12.6
Facebook	40	11.7
Text Message	34	10.0
Twitter	20	5.9
Other	20	5.9
Snapchat	4	1.2

Table 4.5. Contact Method During Recruitment (most).

Method	n	%
E-mail	198	58.1
Mail	40	11.7
Brochures	30	8.8
Campus Tour	30	8.8
Postcard	19	5.6
Social Media	13	3.8
Phone Call	5	1.5
Other	6	1.7

Table 4.6. Most Effective Social Media Platform for Students.

Category	n	%
Instagram	120	35.2
Website	97	28.4
Facebook	46	13.5
YouTube	33	9.7
Twitter	26	7.6
Others	10	2.9
Snapchat	9	2.6

Hypotheses Testing

In order to answer the research question, “What factors influence students’ college selection process?” and based upon the research model listed below in Figure 4.1, the hypotheses (H1-H6) were tested using SPSS 25.0 regression.

To create the construct values for hypotheses testing, individual measures for the constructs were summated into one score (combined) and subsequently tested. Performance Expectancy (PE) was created by using a summation of each of five measures of PE within the survey (e.g., PECOMBO = PE1 + PE2 + PE3 + PE4 + PE5) and tested against the summated score for the four measures related to Behavior (BCOMBO = B1+B2+B3+B4). Similarly, scores for five measures of Effort Expectancy (EE) were summated, five measures of Social Influence (SI), and four measures of Facilitating Conditions (FC) were summated and tested against the summated score for Behavior. Results of the hypothesis testing are provided in Table 4.7 with a brief discussion of each hypothesis.

- **Hypotheses H1 (Performance Expectancy):** When using university/college recruiting systems, there is a positive relationship between performance expectancy and students’ school of choice.

  The relationship between performance expectancy and behavior (students’ school of choice) was both positive and significant (t-value = 5.752; p = .000). Therefore, performance expectancy (PE) is a significant predictor of behavior (B). H1 is accepted.

- **Hypotheses H2 (Effort Expectancy):** When using university/college recruiting systems, there is a positive relationship between effort expectancy and students’ school of choice.

  The relationship between effort expectancy and behavior (students’ school of choice) was negative and not significant (t-value = -.903; p = .367). Therefore, effort expectancy (EE) is not a significant predictor of behavior (B). H2 is not accepted.
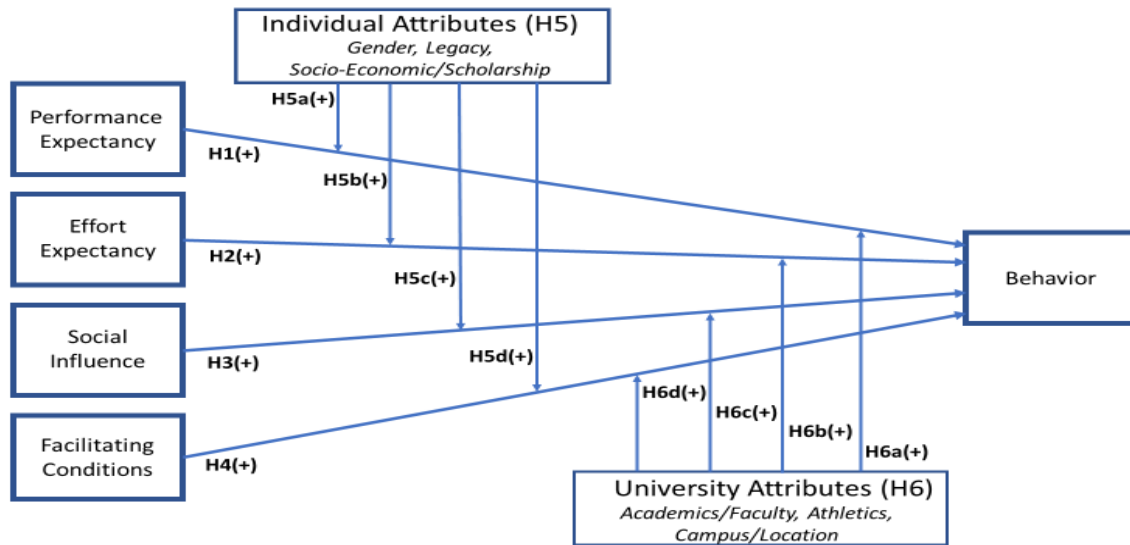
Figure 4.1. Adapted UTAUT Model for College/University School of Choice.

Table 4.7. Hypotheses Test Results.

Variables Tested	Std. Beta	Std. Error	t-value	Significance	Result
Main Effect					
PECOMBO	.365	.062	5.752	.000	Accepted
EECOMBO	-.057	.073	-.903	.367	Not Accepted
SICOMBO	.056	.046	1.194	.233	Not Accepted
FCCOMBO	.479	.044	11.282	.000	Accepted
Moderation Effect					
(Individual Attributes)					
PEIA Interact (PExIA)	-.457	.010	-1.403	.162	Not Accepted
EEIA Interact (EExIA)	-.152	.013	-.400	.690	Not Accepted
SIIA Interact (SIxIA)	.667	.013	1.720	.086	Not Accepted
FCIA Interact (FCxIA)	.510	.010	1.747	.082	Not Accepted
(University Attributes)					
PEUA Interact (PExUA)	.146	.010	0.431	.667	Not Accepted
EEUA Interact (EExUA)	.002	.012	0.006	.995	Not Accepted
SIUA Interact (SIxUA)	1.148	.012	3.524	.000	Accepted
FCUA Interact (FCxUA)	-.529	.010	-1.628	.104	Not Accepted

Model R^2 = .479; Std Error Estimate = 2.57; F Change = 77.36; df1 = 4; df2 = 336; Sig. F Change = .000
Dependent Variable = BCOMBO

- **Hypotheses H3 (Social influence):** When using university/college recruiting systems, there is a positive relationship between social influence and students' school of choice.

    The relationship between social influence and behavior (students' school of choice) was positive but not significant (t-value = 1.194; p = .233). Therefore, social influence (SI) is not a significant predictor of behavior (B). H3 is not accepted.

- **Hypotheses H4 (Facilitating Conditions)**: When using university/college recruiting systems, there is a positive relationship between facilitating conditions and students' school of choice.

    The relationship between facilitating conditions and behavior (students' school of choice) was positive and significant (t-value = 11.282; p = .000). Therefore, facilitating conditions (FC) is a significant predictor of behavior (B). H4 is accepted.

Test of Moderating Factors (H5 and H6)

For each of the two moderators (Individual Attributes and University Attributes), scores for the measures were summated and tested as potential moderating effects on the main model hypothesized paths. To test the moderating factors of Individual Attributes (H5) and University Attributes (H6) on the hypothesized paths, an interaction term was created which measures the potential effect of the proposed moderator. Interaction terms were created by multiplying the independent variables (PECOMBO, EECOMBO, SICOMBO, and FCCOMBO) by the individual proposed moderators (IACOMBO & UACOMBO). This interaction term (e.g., PECOMBOxIACOMBO) was then included within the regression model on the dependent variable (BCOMBO) to determine if significant interaction effects existed (as noted by the p-value < .05).

- **H5: Individual attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT.**
    Based upon the moderation testing results for the individual attributes, H5 is not confirmed as none of the path relationships were significantly and

positively affected by inclusion of individual attributes within the model (as evidenced by none of the t-values being significant or p-value < .05). Therefore, no significant moderation effects occurred on the hypothesized path relationships.

- **H5a: Individual attributes will have a significant and positive effect on the relationship between performance expectancy and choice of attendance.**
  Based upon the moderation testing results above for the individual attributes, H5a is not confirmed as the t-value of the interaction effect (-1.403; p = .162) is neither positive nor significant.

- **H5b: Individual attributes will have a significant and positive effect on the relationship between effort expectancy and choice of attendance.**
  Based upon the moderation testing results above for the individual attributes, H5b is not confirmed as the t-value of the interaction effect (-.400; p = .690) is neither positive nor significant.

- **H5c: Individual attributes will have a significant and positive effect on the relationship between social influence and choice of attendance.**
  Based upon the moderation testing results above for the individual attributes, H5c is not confirmed as the t-value of the interaction effect (1.720; p = .086) is not significant.

- **H5d: Individual attributes will have a significant and positive effect on the relationship between facilitating conditions and choice of attendance.**
  Based upon the moderation testing results above for the individual attributes, H5c is not confirmed as the t-value of the interaction effect (1.747; p = .082) is not significant.

- **H6: University attributes will have a significant and positive moderating effect on the proposed relationships within the adapted UTAUT.**
  Based upon the moderation testing results for the university attributes, H6 is only partially confirmed since only one of the path relationships were significantly and positively affected by inclusion of university attributes within the model (as evidenced by the t-value of social influence interaction effect being significant).

- **H6a: University attributes will have a significant and positive effect on the relationship between performance expectancy and choice of attendance.**

Based upon the moderation testing results above for the university attributes, H6a is not confirmed since the t-value of the interaction effect (.431; p = .667) is not significant.

- **H6b: Individual attributes will have a significant and positive effect on the relationship between effort expectancy and choice of attendance.**
  Based upon the moderation testing results above for the university attributes, H6b is not confirmed as the t-value of the interaction effect (.006; p = .995) is not significant.

- **H6c: Individual attributes will have a significant and positive effect on the relationship between social influence and choice of attendance.**
  Based upon the moderation testing results above for the university attributes, H6c is confirmed since the t-value of the interaction effect (3.524; p = .000) is significant.

- **H6d: Individual attributes will have a significant and positive effect on the relationship between facilitating conditions and choice of attendance.**
  Based upon the moderation testing results above for the university attributes, H6d is not confirmed since the t-value of the interaction effect (-1.628; p = .104) is not significant.

<u>Summary</u>

Chapter IV presented data analysis of the proposed methodology and reported results from the proposed hypotheses testing introduced in Chapter II. The first section of Chapter IV reported on the focus group which was conducted with seven students who were attending different colleges and universities. Key information derived from the focus groups was that several students came from divorced parents and this impacted their need for financial aid and scholarships; some students were seeking athletic scholarships which impacted their choice; and some were first generation students.

The pilot study was conducted with 75 students from a freshman class to test for validity and reliability of the survey questions. Following the completion of the pilot study, coding of the variables was completed to match the Proposed Construct Measures.

SPSS 25.0 was used to analyze the students' surveys. The Behavior Construct was analyzed which resulted in a Cronbach's alpha coefficient lower that the acceptable .70 value in social science research. Subsequently, the four survey questions relative to Behavior were reworded and the researcher included an 'attention check' question midway through the survey to reduce common response bias.

The final survey was conducted with 341 usable responses. From the data analyzed, two primary hypothesized paths (H1 and H4) were found to be statistically significant whereas hypotheses H2 and H3 were found insignificant. Hypotheses (H5) relating to Individual attributes as a moderating factor within the model was found to be insignificant. Hypothesis (H6) relating to University attributes as a moderating factor within the model was found to be partially confirmed, as only the relationship between social influence (SI) and school of choice behavior (B) under H6c was significant, whereas the other hypothesized paths (H6a, H6b, H6d) were found insignificant. The results suggest that performance expectancy and facilitating conditions have a significant and positive relationship with behavior (school choice). Conversely, effort expectancy and social influence did not have a significant or positive direct relationship with behavior. The factor of Individual attributes did not show any moderation on the hypothesized paths, while University attributes only moderated one path (SI →B).

CHAPTER V

DISCUSSION

Introduction

Chapter IV included the summaries of the pilot study and the focus group, collection of statistical data and the analysis. Chapter V consists of: (a) a summary of the study, (b) discussion of the findings, (c) implications for practice, (d) recommendations for further research, and (e) conclusion.

Summary of the Study

The purpose of the study was to identify major factors that influence students' choice when selecting a university or college. To address the primary research question—***What factors influence the student college selection process?***—the researcher developed an instrument to examine several major constructs of the Unified Theory of Acceptance and Use of Technology Model (UTAUT) and two sets of moderators (Individual and University Attributes). Moderating dimensions to the model were informed by the work of Hamrick & Hossler's (1996) research on decision-making as it applies to college choice. To this end, the study proposed a framework and model that tested proposed primary relationships (H1-H4) adapted from the UTAUT framework as well as potential moderating factor effects (H5 and H6) adapted and informed by the Hamrick & Hossler (1996) study on postsecondary decision making. By applying findings from this study, admission counselors from higher education institutions could

use this data to guide them in their selection of best recruitment practices for their particular institutions.

Relationship of Performance Expectancy and Behavior (H1)

Previous work relating to the relationship of performance expectancy and behavior suggested a significant and positive relationship (Venkatesh et al., 2003; Decman, 2015) Wang, Wu, & Wang (2009) also suggested that the strongest predictor of behavioral intention to use information technology is that of performance expectancy. In this study, there was a connection between performance expectancy and behavior. The results confirmed this significant and positive relationship (t = 5.752). Students believed that technology was helpful in the identification of their chosen colleges or universities, but that it helped them to make their decision more quickly. That said, the *only* form of technology students referenced as helpful in terms of significance was email. The findings of this study did not identify any form of social media—while widely used by students for other reasons—useful in their college decision-making processes.

Relationship of Effort Expectancy and Behavior (H2)

Prior work by Davis, Bagozzi, & Warshaw (1989) noted the importance of effort expectancy and its relationship to behavior. Prensky (2005) reported that today's students have short attention spans and that content needs to be engaging. Fang (2008) posited that the degree to which one is motivated is dependent upon the perceived relationship between performance and outcomes and that individuals modify their behavior based on their belief in anticipated expectations. The current findings did not

confirm this relationship as the t-value was not significant (t = .903). Perhaps this was not the case because of a difference in perceptions which can occur due to several factors such as ability and interest (Redmond, 2010). A student's attitude toward technology may also have an impact on this relationship, as well as cultural differences which may cause a contradiction in the outcome (Thomas, Singh, & Gaffar, 2013). Students who participated in this survey apparently did not find is easier to identify quality information when using technology. Further, they did not appear to think that using technology was easier than managing other recruiting materials.

Relationship Between Social Influence and Behavior (H3)

Previous research by Bozan, Parker & Davey (2016) reported that individuals' actions are based on beliefs about how they should perform relative to how important certain people are to them. Significant people in the lives of college students are parents, friends, and high school personnel (Kealy & Rockel, 1987). While students in the focus group talked about the role of significant people in their decision-making, the findings of the quantitative aspects of this study did not confirm this relationship as the t-value was not significant (t = 1.194).

Perhaps this was not the case because of either situational or dispositional influence. *Situationism* is the opinion that one's behavior is determined by one's immediate environment while *dispositionism* is based on the idea that one's behavior is controlled by internal attributes and factors (Heider, 1982). The majority of students who participated in quantitative aspects of this study appeared not be influenced by their

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peers, parents, friends, or counselors when making their selection for a college or university.

Relationship Between Facilitating Conditions and Behavior (H4)

Akbar (2013) reported that facilitating conditions had a significant influence on technology usage. Facilitating conditions have a significant impact on the subject's intention to use technology and their attitude toward perceived ease of use according to Teo (2010). In the current study, the results confirmed a positive and significant relationship (t = 11.282). Students in this study believed that email influenced their decisions when selecting a college or university. Likewise, the reputation of the athletics program was an important factor in their choice of institution. Further, they were influenced by appealing campus housing and the reputation of the faculty/academics of the institution which suggests that campus recruiters highlight these attributes when creating marketing and recruitment materials.

Relationship between Individual Attributes and Behavior (H5a-d)

Individual attributes researched in this study were gender, legacy, and socioeconomics. In prior studies relative to gender, researchers reported that men and women are affected differently by technology (Venkatesh & Morris, 2000b). Similarly, Hamrick & Hossler (1996) in reviewing key factors in the postsecondary decision-making process noted that parental factors, sociological factors, and economics all play an important role in the decision to attend a university or college. Legacy appears to play a prominent role relative to some admissions, particularly at elite institutions where they

can account for as much as a 23% advantage in terms of the probability of student admission (Hurwitz, 2011). Noel Levitz (2017) reported that two of the top factors that determined students' original decisions to enroll were financial aid and cost. The students who participated in the researcher's focus group indicated that financial aid and cost of attending an institution played a significant role in their decision to attend a college or university. Based on the moderation testing results for individual attributes, H5, which tested the potential moderating effects of individual attributes on the model hypothesized paths, was not confirmed since none of the path relationships were significantly affected by inclusion of individual attributes within the model (as evidenced by none of the t-values being significant).

Relationship Between University Attributes and Behavior (H6a-d)

University attributes researched in this study were faculty/academics, athletics, and location/facilities. In a prior study, related to faculty/academics, Broekemier & Seshandri (2000) reported that students' futures are heavily influenced by the quality of education provided by a college or institution (Griffith & Rask, 2016). Budig (2007) reported on the impact of new, multi-million-dollar facilities have become the rule and not the exception. The strong attraction of athletic facilities in recruiting students was reported by Toma and Cross (1998). College athletic programs have become powerful attractions to potential students according to Gerdy (2002).

While a number of factors such as non-academic amenities are important, research shows students are demanding expensive academic amenities, particularly when the tuition deposit is oncoming and things such as academic reputation become more

relevant (Griffith & Rask, 2016). The location and proximity of students' homes to a particular institution is an important factor in choice of institution (Braddock & Hua, 2006). Minorities are especially influenced by the ability to attend college close to home (Turley, 2009).

Implications for Theory

The original Unified Theory of Acceptance and Use of Technology Model (UTAUT) and Hamrick & Hossler's (1996) work provided the foundation for this study designed to evaluate factors related to students to school choice. The survey instrument used for this study was developed using data from the original Unified Theory of Acceptance and Use of Technology Model (UTAUT), several other research studies that applied the UTAUT model, dimensions from the Hamrick & Hossler (1996) study, and reports from Noel-Levitz Student Inventories. While the UTAUT model has been used widely to test use of technology by a variety of participants, the model developed by the researcher appears to be only moderately reliable in predicting student choice of a higher education institution since only two of the four hypothesized paths were positive and significant.

Additionally, the overall percent variance explained by the model (R=squared) of .479 suggested that the adapted conceptual model did not explain a high percent of variance for the model, thereby suggesting that future research continue to seek out better direct explanatory factors that could lead to school of choice besides those currently tested. Individual attributes did not show any moderating significant effect on the hypothesized path relationships, while university attributes only reflected a significant

and positive moderating influence on the relationship between social influence (SI) and school of choice (B).

More potential key factors are necessary for inclusion in the model to help identify why students make university/college choice decisions other than those factors tested. Specifically, testing those new factors as having a significant and direct impact on school of choice behavior rather than using a moderation-based approach within the framework. These potential additional factors may include more emphasis on the importance of facilities and athletic records which explains why Generation Z is greatly attracted to exercise facilities, upscale dormitories, elaborate sports facilities, and technology-oriented classrooms and laboratories. Based on the results of this study, Generation Z is not as influenced by legacy status as previous generations, but members of this group are more likely to be swayed by glamorous facilities.

Implications for Practice

At a time when universities and colleges are highly competitive in their quest to attract outstanding students, this study provides some useful data that can be applied by individual institutions' admission employees in determining some of the primary factors that attract students to their schools. By understanding some of the major factors that students consider when making a choice of school, admission personnel can structure and adapt their recruitment strategies that allow for more effective practices as related to their budgets and resources.

The evolution of technology to include social media platforms is one such area of interest to academic practitioners such as university Admissions Counselors.

Respondents noted, when asked about effective social media platforms as part of the study, that Instagram (35.2%), websites (28.4%), and Facebook (13.5%) were strongly effective means to reach them. Yet, it was also determined that students are mostly contacted during the recruiting process via non-technological means such as email (58.1%), mail (11.7%), brochures (8.8%), and through on-campus tours (8.8%). There continues to be a disconnect between how students view the importance of technology and communication with how universities and colleges are currently communicating with applicants.

While many universities continue to have university-based social media accounts, they do not appear to be utilized in recruitment efforts to their fullest extent. Perhaps prioritizing social media engagement as part of the recruitment process would be a strategic asset, particularly for those universities who can offer engaging materials regarding campus life, facilities, and academics. In the event that college recruitment offices are not utilizing Gen-Z students to aid in recruitment and development, having students run the technology platforms as part of a student-work program might yield benefits regarding admissions numbers.

With the importance of facilitating conditions as noted by the findings, colleges and universities can use this information to highlight campus facilities through virtual campus tours, 3-D views of places such as dormitories, exercise and fitness centers, academic buildings, and athletics facilities to better attract student interest and potential enrollment. Follow-up with prospective students relating to campus visits and tours via social media (e.g., texting) may also be important to better understand what factors were

most enticing for each individual student and which factors may be of less importance. As this data is compiled and reviewed, campus recruiters can better tailor future on-site visits to student needs and similarly follow-up with perspective students via technology platforms like social media after the on-site visits are complete to ensure that the campus and university keeps the attention of students. Effective use of technology and social media may also allow the sharing of information between students and their families, peers, and others which could effectively enhance the standing of each school.

Classroom videos that showcase various classes within the individual programs may also be of help to students who want to get a feel for what the college experience may be like prior to determining their school of choice and could better connect up-to-date technology with students who may be traveling from far away (such as international students) or those who may not be able to financially afford to visit the campus. As more universities utilize videos to highlight factors such as teaching, research, and service to the community, future students can better engage proactively with the programs with the hopes of attending their chosen institutions.

Recommendations for Further Research

The primary purpose of this study was to examine social media recruiting methods and related factors currently in use by higher education institutions and to identify some of the important factors that influence students' choice when selecting a university or college. Since this study only examined students' opinions from one major university in South Carolina, the study could be replicated at other institutions which could add more insight into factors affecting students' choice of institution.

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A similar study that included data from several institutions could provide more information for comparisons and might offer insight as to how choice is affected by different geographic regions, size of institution, scholarship offerings, and other important factors. The body of literature could be enhanced by researching different moderators that were not included in Individual and University moderators that were used in this study as well as including various other potential "predictor" factors that might positively impact school of choice such as scholarships received, availability of online courses, job placement factors, and social organizations.

Students frequently cite parents and school counselors as major influencers in their schools of choice, yet contradicting information was determined as social influence was not found to significantly and positively affect school of choice. A similar study that examines parents' opinions in their children's choice of schools might provide interesting and useful data relative to similarities and differences with their children. Discovering if parents and students respond differently to questions relative to influential factors could add data to the college choice literature. Similarly, a study that examined the influence of counselors and how their opinions concur or disagree with the data from students in this study could be useful in increasing knowledge in the field. With students often sharing photos, pictures, stories and information across technology platforms, future studies should also consider which platform is most effective for recruitment efforts, and whether students share this type of information versus other personal stories and data.

Determining if the recruitment efforts are being shared or "liked" by other peers may also provide secondary benefits if the friends or peers begin to consider the school or

university in question, given the broad range of friends on social media outlets. One key image, post, or engagement activity may lead to other opportunities for recruitment offices as information continues to get shared across each technology social media platform.

This study addressed the identifications of the opinions of students attending a large, public research institution in South Carolina. Similar studies that address different types of institutions and thus students of varying backgrounds such as private institutions, HBCUs, small public institutions, community colleges, and same-sex institutions might yield results that could be beneficial to admission counselors. Student participants in this study were influenced by facilities; therefore, a future study might be focused on which choices of facilities and enhancements are most likely to influence student choice.

This creates the question, "How can recruiters use social media to contact students more effectively?" College and university recruiters, in many cases, appear to be using technology and social media; but may not have developed an effective plan that combines a number of platforms in order to reach Generation Z students.

For example, in 2018 EAB conducted a study and reported a big increase in the percentage of students who used Instagram and a big decrease in the percentage using Facebook (Jaschik, 2019). The same study by EAB noted, however, that one in two students still use Facebook and that this platform is very effective in engaging parents. Therefore, it appears that universities and colleges need to pay close attention to their social media mix and how students in specific regions are interacting and responding to their choices. It also suggests that social media platforms are not a "one-size-fits-all"

approach and need to be tailored to the target audience, whether that be potential students or their parents.

Technology such as social media, used properly with features such as virtual tours, could provide recruits with an intimate view of the school, its culture, and some parts of its personality. By using social media, students who are being recruited could already be exposed to what campus life is like before they arrive on campus for a visit, could have seen closeup views of athletic facilities, and perhaps had interactions with current students. A study using both qualitative and quantitative methods that determined why most universities/colleges are still using more traditional methods of recruiting and are not utilizing technology such as social media more extensively would provide useful information for admission personnel. One potential problem might simply be that many admission directors and counselors are older and not as engaged in social media as Generation Z. Another problem might be that resources may be limited for certain universities or colleges and that it may be easier to "do what we've always done" rather than invest into new technologies or new platforms that can't immediately guarantee results.

The purpose of this study was to identify those factors that most influence students' choices when selecting a college or university. The study also collected and analyzed demographic data of participants. Admissions counselors can use the data collected and analyzed in this study to revise their recruitment practices to include data that is relevant to their institutions. The data from this study adds to the body of literature on factors influencing school of choice and provides data that can be useful to admission

counselors to increase their recruiting effectiveness and in developing a systemic plan for recruitment, particularly when considering ever-developing technological platforms.

Conclusion

The purpose of this study was to determine major factors that influence students' choice when selecting a college or university. Results indicated that the constructs of Performance Expectancy and Facilitating Conditions such as classrooms, athletics facilities, and dormitories reflected a significant and positive relationship with school of choice. Factors of Effort Expectancy and Social Influence from peers, parents, or counselors were not found to be statistically significant, though were significant based on the focus group that informed this study. College recruitment offices can utilize this data to better tailor recruitment efforts to incoming students, thereby creating a positive and more engaging experience for prospective future students.

APPENDICES

Appendix A

Main Study Questionnaire

"HOW SOCIAL MEDIA INFLUENCES STUDENTS' CHOICE WHEN SELECTING AN INSTITUTION OF HIGHER EDUCATION"

Dear Participant:

My name is Mike Moody, and I am currently an Instructor at the University of South Carolina and doctoral candidate at Clemson University.   I am currently seeking your participation in a study related to college choice and need your help.

The purpose of this study is to evaluate and measure data regarding the influence of the University of South Carolina's website, related social media platforms, technology, and traditional recruiting methods in making your college choice.   The study is being conducted as part of research for the doctoral program at Clemson University.

Your participation is voluntary, and you may decline to participate or discontinue your participation at any time. If you decide to participate in this research study, you will be asked to complete the survey below. The survey will take approximately 15 minutes or less to complete and will include general demographic questions which will be in an aggregated form to protect the individual identities of the participants. All individual survey response data will be anonymous and held in confidence by the researcher. By completing the survey, you may be selected at random for a $50 Amazon gift card. A total of ten gift cards will be randomly awarded to those participants who leave their email addresses at the end of the survey. If you have any questions related to the survey, please contact Clemson's IRB program at: (864) 656-3311. At USC, I can be reached at: (803) 777-0775 or via email at: mbmoody@email.sc.edu. Thank you for your time and participation!!!

Do you wish to continue?

☐ Yes

☐ No

Please select all methods by which you were contacted by your selected college/university during the recruitment process:

- ☐ Brochures

- ☐ Campus Tour

- ☐ Email

- ☐ Facebook

- ☐ Instagram

- ☐ Phone Call

- ☐ Postcard

- ☐ Snapchat

- ☐ Text Message

- ☐ Twitter

- ☐ Virtual Campus Tour

- ☐ Others _____

By which recruiting method were you most contacted?

_____

Please rank the following social media recruiting methods by dragging the "most effective" method to the top and the "least effective" on the bottom:

_____ Facebook

_____ Instagram

_____ Snapchat

_____ Twitter

_____ Website review

_____ YouTube Videos

_____ Others (Please identify)

Please select your level of DISAGREEMENT or AGREEMENT with the following statements regarding your use of social media and college/university selection:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	No opinion
Technology was helpful in identifying appropriate universities or colleges for me	◯	◯	◯	◯	◯	◯
Using technology helped me make my college/university decision more quickly	◯	◯	◯	◯	◯	◯
The use of technology accelerated my decision in identifying the best college/university for me	◯	◯	◯	◯	◯	◯

Using technology helped me find the right information about my school of choice	○	○	○	○	○	○
Using technology improved my ability to identify the best institution for me	○	○	○	○	○	○
Technology facilitated the process of identifying the best institutional match	○	○	○	○	○	○
Using technology made it easier to identify quality information	○	○	○	○	○	○
Accessing information regarding different institutions was easy when using technology	○	○	○	○	○	○
Using technology was easier to manage than other recruiting methods	○	○	○	○	○	○
Using technology in my college search was too time consuming	○	○	○	○	○	○

My peers thought I should use technology during my college/university recruiting process	○	○	○	○	○	○
My parents thought I should use technology in my college search	○	○	○	○	○	○
My friends did not influence my choice to use technology	○	○	○	○	○	○
My counselors influenced my choice to use technology	○	○	○	○	○	○
My teachers thought I should use technology in identifying the best institutional match for me	○	○	○	○	○	○
Digital images of campus influenced my decision when selecting a college/university	○	○	○	○	○	○
The reputation of the faculty/academics did not influence my choice of institution	○	○	○	○	○	○
The reputation of the athletics program	○	○	○	○	○	○

influenced my choice of institution

Appealing campus housing influenced my decision when selecting a college/university	○	○	○	○	○	○
The cost of tuition influenced my choice of institution	○	○	○	○	○	○
Technology did not influence my school of choice	○	○	○	○	○	○
I am attending my school of choice based on help from technology	○	○	○	○	○	○
I would not have chosen my college/university without the use of help from technology	○	○	○	○	○	○
I can continue to use technology to access important information at my school of choice	○	○	○	○	○	○

Please select your level of DISAGREEMENT or AGREEMENT with the following statements regarding your college/university selection:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	No Opinion
Gender influenced my college choice	○	○	○	○	○	○
Gender of the student body did not have any influence on my school of choice	○	○	○	○	○	○
It is important to attend a university where my parents attended	○	○	○	○	○	○
Attending a college or university where my parents attended is preferable.	○	○	○	○	○	○
Receiving a scholarship influenced my choice of college/university	○	○	○	○	○	○
Economic reasons influenced my choice of college/university	○	○	○	○	○	○
Academic reputation of the institution influenced my decision to attend my college/university	○	○	○	○	○	○
The quality of the program and major I was seeking influenced my decision to attend my college/university	○	○	○	○	○	○

The strength of our university's athletics program influenced my decision to attend my college/university	○	○	○	○	○	○
The athletics program of my institution played no role in the selection of my college/university	○	○	○	○	○	○
The proximity of the campus location did not influence my decision to attend my college/university	○	○	○	○	○	○
The campus facilities (e.g., dorms, health center, academic buildings) influenced my decision to attend my chosen college/university	○	○	○	○	○	○

You are almost finished!!!! Just a few more questions about you...

With which gender do you identify?

○ Male

○ Female

○ Other (Please indicate) _____

With what race (ethnicity) do you most identify?

○ White (Caucasian)

○ Black (African American)

○ Hispanic (includes Latino or Spanish)

○ Asian (including Pacific Islander)

○ American Indian (includes Alaska Native)

○ Multiracial (more than one race)

○ Other (please identify) _____

Did your parents attend a college/university?

○ Yes

○ No

○ Unsure

Are you classified by your college/university as a "First Generation" college student?

○ Yes

○ No

○ Unsure

What is the highest level of education attained by your Mother?

◯ Elementary School

◯ Middle School

◯ High School

◯ G.E.D.

◯ Associate Degree

◯ Baccalaureate Degree

◯ Masters' Degree

◯ Terminal Degree (including Ed.D., J.D., M.D., Ph.D.)

◯ Do not know

What is the highest level of education attained by your Father?

◯ Elementary School

◯ Middle School

◯ High School

◯ G.E.D.

◯ Associate Degree

◯ Baccalaureate Degree

◯ Masters' Degree

◯ Terminal Degree (including Ed.D., J.D., M.D., Ph.D.)

◯ Do not know

Would you like to be entered into a drawing for one of ten Amazon $50 gift cards? (if "Yes", you will be asked to provide your e-mail address). When gift cards have been awarded, your email will be deleted and will not be used for further research.

○ Yes

○ No

Please provide your e-mail address below:

_____

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