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The Impact of Digital Marketing Tactics on the Recruitment of Domestic First-Generation College Students in the Southwest United States

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**The Impact of Digital Marketing Tactics on the Recruitment of Domestic First-Generation
College Students in the Southwest United States**

by

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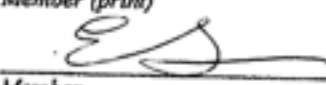
**The Impact of Digital Marketing Tactics on the Recruitment of Domestic First-
Generation College Students in the Southwest United States**

has been approved for the Doctor of Business Administration Program
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Dedication

To my parents.

Mom, who took on the role of lighthouse. You spoke so many needed words of encouragement and kept me from slamming into the rocks or jumping overboard when it felt like it was just too much. You personify what it means for women “having it all”; family, friends, and career dominance, you’ve been the best lifelong example a daughter could ask for.

Dad, who took on the role of sounding board and family wordsmith. At times when words seemed impossible to get from my brain through my fingers on a keyboard, you were never further away than a phone call or FaceTime to hear a draft and help make the words flow smoothly through me.

And I can’t forget Lucy, the trusted family dog who spent countless hours snoring in my lap while I wrote and rewrote assignments over the years.

Acknowledgement

"There is no limit to what we, as women, can accomplish." Michelle Obama

This dissertation is made possible by all the women who walked a similar road before me.

Thank you.

To all the women struggling to be seen, taken seriously, and wanting to throw in the towel, I beg you to keep pushing through. “Having it all” means something different to each of us. Find your “why” and run toward that every day.

I can & I will.

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Abstract

In 2015, 36% of first-time freshmen applied to more than seven colleges or universities. In 2005, this figure was 17% (Soodik, 2017). This study assesses email and text messaging digital marketing touchpoints in the recruitment and matriculation of first-generation college students at a private, four-year institution in the southwest region of the United States of America and is a member of the Council for Christian Colleges and Universities (CCCCU). In chapter two of this dissertation, the research explores the history of student college choice theories and examines the ways in which the original theory has changed throughout the years. Ultimately the study found that there was a positive relationship between text messaging and enrollment decisions which was nine times stronger than the relationship between email ($B = 0.018$ vs. $B = 0.002$). However, when text messages sent and replied to and email were compared in a regression, emails ceased to have a significant relationship ($p = 0.078$) with matriculation, as shown in Table 17. The dissertation concludes with areas for future research and areas for application to the enrollment marketing profession.

Keywords: enrollment marketing, first-generation college, recruitment, digital marketing tactics, email marketing, text message marketing

Chapter 1: Introduction

Overview

In 2015, 36% of first-time freshmen applied to more than seven colleges or universities. In 2005, this figure was 17% (Soodik, 2017). In 2012, more than one-third of students aged between 5 and 17 in the United States were first-generation college students (collegeboard.org). That number increased to 56% in 2015 (RTI International, 2019). With more than 4,000 higher education institutions in the United States (National Center for Education Statistics, 2020) and a strong emphasis on diversifying college student bodies (Rosinger, Ford, & Choi, 2021), universities' effective recruitment of first-generation college students is becoming ever more vital for the institutions' financial success. Enrollment marketing offices have honed their craft of what to send to continuing-generation students and at what intervals. Understanding the process followed by first-generation college-bound students in selecting a college or university will assist educational institutions in their retention goals and, ultimately, their graduation efforts (Inman & Mayes, 1999).

With the upward trend in the number of institutions students apply to, university enrollment marketing departments are not only competing for attention but also trying to win the comparison game while seeking to avoid exhausting their funds on ineffective tactics. Obtaining a full incoming class of their ideal students will ensure the financial success of universities for years to come. Ensuring that incoming student cohorts are diverse, not only in terms of race and ethnicity but also in terms of continuing-generation and first-generation college students, provides opportunities for improved learning and understanding among the student body. However, recruitment of first-generation college students is not a one-size-fits-all approach and needs to be evaluated independently from continuing-generation student recruitment tactics.

This study assesses the most effective digital marketing touchpoints in the recruitment and matriculation of first-generation college students at a private, four-year institution in the southwest region of the United States of America. This institution (“the selected institution”) is a member of the Council for Christian Colleges and Universities (CCCU).

Statement of the Research Problem

Enrollment marketing offices play a key role in the recruitment and matriculation of college-bound students, but they are not usually assigned carte blanche for budgeting or strategic initiative planning. Knowledge of which digital marketing strategies enrollment marketing teams should invest more time and money into to effectively influence a student’s decision to enroll is key for future tactics planning. The first step in allocating marketing budgets is understanding the target audience and the tactics that move them to action. Previous research reveals that first-generation college students are more likely to be from non-White families and lower socioeconomic statuses (Terenzini P. T., Springer, Yaeger, Pascarella, & Nora, 1996). Simply being a first-generation college student reduces an individual’s overall likelihood of applying and matriculating to college due to insufficient understanding of the application requirements and overall process (Barahona, 1990). However, many first-generation college students wish to apply, matriculate, and graduate with their postsecondary degree to improve their social and economic situation compared to their parent’s and first-generation peers (Vasquez, 2013).

In 1996, it was speculated that first-generation college students would matriculate to college at higher numbers than ever before (Terenzini et al., 1996), and in 2021 this prediction edged closer to reality as many schools opted to make standardized tests optional (Krantz, 2021). However, in 2008, a study by The Pell Institute for the Study of Opportunities in Higher Education found that first-generation college students were underrepresented on college

campuses compared to their continuing-generation counterparts (Engle & Tinto, 2008). More than a decade later, applications from first-generation college students to private schools were 7% lower than in previous years (Krantz, 2021). Considering the matriculated student population at four-year public institutions, first-generation college students comprised only 18% of the student population compared to 27% of the population at public two-year institutions (Engle & Tinto, 2008). In 2018, Toutkoushian et al. (2018) found that students without college-educated parents were 9% less likely to enroll in a four-year institution than their peers with two college-educated parents. First-generation college students are also less likely to apply to and enroll in private, non-profit colleges than their continuing-generation counterparts (Redford & Hoyer, 2017).

For many college-bound students, deciding which college or university to apply to is their first major decision that will have a lasting impact on their lives (Galotti, 1995; Johnston, 2010). Cognitive abilities are still developing in the late teenage years, and the overwhelming impact of this decision is often fraught with emotions and stress (Johnston, 2010). While the decision of which college to attend is typically made in the senior year of high school, the search process and gathering of information can start as early as middle school or seventh grade (Cabrera & La Nasa, 2000b). Selecting a university is a process that all college-bound students undergo, but it can be very different for first-generation college students compared to continuing-generation students. Many first-generation college students state that they feel their search process begins later than that of their continuing-generation peers due to the lack of understanding of and guidance from their parents (Ceja, 2001).

Students begin their search for a college in their early teens, which provides time for researchers to investigate the decision-making process and recognize what does and does not

influence students when making this significant life decision. The need for enrollment marketing offices to become more competitive so they can recruit top-quality candidates continues to rise, and the demand for greater diversity on college campuses continues to increase. This study will serve as a guide to assist potential cultural shifts when it comes to recruiting as it has always been conducted. While multiple theories and previous studies have examined the college choice process from a qualitative research perspective (Chapman, D. W., 1981; Chapman R. G., 1986; Hossler & Gallagher, 1987; Johnston, 2010), few specifically consider first-generation college students through a quantitative lens.

Being the first in a family to decide to attend college can pose significant challenges, including but not limited to cultural differences, financial opportunities, and educational deficits (Toutkoushian et al., 2018). For the low-income, first-generation college student population, only 11% obtained their bachelor's degree after six years compared to 55% of continuing-generation students (Engle & Tinto, 2008). Thirty-one percent of first-generation students who did not complete their postsecondary credential within seven years of completing high school said demands at home conflicted with their ability to finish the degree (Redford & Hoyer, 2017), suggesting that first-generation college students' circumstances differ to those of their continuing-generation peers. Understanding the frame of reference and selection process of first-generation college students will enable enrollment marketing offices to better evaluate how they communicate with this population of prospective students (Toutkoushian et al., 2018).

While the majority of first-generation college students begin their educational journey at two-year colleges (Engle & Tinto, 2008), research demonstrates that if first-generation college students start at a four-year institution, they are significantly more likely to successfully obtain their degree than if they start at a two-year college intending to transfer after receiving their

associate's degree (Bui, 2002). Holland (2020) argues that we need not seek a one-size-fits-all approach to first-generation college students' influences and motivations but rather consider how enrollment marketing departments interact with first-generation college student applicants and their parents. When an enrollment office for a four-year institution on the east coast proactively engaged with first-generation prospective college students early in the recruitment process, they saw an 8.5% increase in applicants from that student population (Krantz, 2021). This provides a basis for continuing to investigate specific digital marketing tactics that can further improve the recruitment of this underrepresented group of students.

Research Questions

When developing recruitment strategies, universities can learn from previous admission cycles in order to make effective changes that ensure more domestic, first-generation, first-time freshman students accept their admission for the fall term. This study provides insight into the most effective digital marketing touchpoints for this specific constituent group.

Research Question 1:

How does the number of emails sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Research Question 2:

How does the number of short message service (SMS) messages sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Hypothesis 1:

The number of emails sent and received has a positive effect on enrollment confirmation.

Hypothesis 2:

The number of SMS messages sent and received has a positive effect on enrollment confirmation.

Hypothesis 3:

There is a positive relationship between the number of emails sent and received and time to enrollment confirmation.

Hypothesis 4:

There is a positive relationship between the number of SMS messages sent and received and time to enrollment confirmation.

Definitions

First-generation: any student whose parents did not earn a bachelor's degree (Engle & Tinto, 2008; Terenzini et al., 1996; Toutkoushian et al., 2018).

Continuing-generation: any student with at least one parent with a bachelor's degree (Manzoni & Streib, 2019; Redford & Hoyer, 2017).

Independent variable: variables that cause, influence, or affect outcomes (Creswell, 2014).

Dependent variable: the outcomes or results of the influence of the independent variables (Creswell, 2014).

Study Delimitations and Limitations

This study is delimited to only first-generation, first-time, domestic freshman applicants to the selected institution who applied to matriculate between fall 2017 and fall 2020 and completed their applications. This delimitation allows the researcher to focus on a single group of similar applicants to discover trends and provide opportunities for direct methods testing in

future cycles. Those who did not complete or who canceled their application were removed from the data set. This study does not consider parents' income level nor applicants' financial aid opportunities. Establishing these boundaries allows the Office of Admissions at the selected institution to understand exactly how their applicants respond to specific digital marketing tactics without making assumptions based on data from dissimilar universities.

The data from this research may be generalizable to the other 140 institutions in the United States and Canada that also belong to the Council for Christian Colleges and Universities (CCCCU). However, considering the location and size of the institution in this study, data may not translate directly to other institutions. Nonetheless, the study can provide insights supporting recruitment practice development for other institutions in the CCCC.

The focused nature of this study presents a limitation for broader application. The researcher does not intend to make broad assumptions regarding all matriculated students. Rather, this research will provide the enrollment marketing office at the selected institution with specific insight into the group of students who exclusively fall into the first-generation, first-time, domestic freshman applicant group. Another limitation is the focused time frame of the study; it focuses on enrollment years prior to the COVID-19 pandemic.

Future research taking income level and financial aid opportunities into consideration may increase the generalizability of the study for institutions throughout the CCCC.

This quantitative research study focused on two digital marketing strategies: SMS messages and emails. Both in- and outbound messages were considered for each strategy to identify key communication touchpoints and interactions with domestic, first-generation, first-time freshman undergraduate applicants. The student college choice model, established by David Chapman (1981), was used as a base framework for evaluating the importance of specific

touchpoints. The researcher examined these students and attempted to identify key recruitment tactics for the domestic, first-generation, first-time freshman applicant pool. Focusing on first-generation college students who confirmed their enrollment allowed the researcher to identify trends in digital communication touchpoints that could ultimately engender a predictive model, thereby increasing the potential for the institution to recruit higher numbers of domestic, first-generation, first-time freshmen.

Researcher's Perspective

The researcher's role in this study was to obtain and analyze archival data provided by the admissions marketing team at the selected institution. The goal of the study was to identify trends in the enrollment marketing efforts and establish a predictive model for future recruitment of the first-generation, first-time, domestic freshman applicant group.

This was a quantitative research study that relied solely on the data provided. However, notably, the researcher is a first-generation student with a passion for providing pathways to education for all students regardless of their parent's educational history. The researcher was previously employed by the selected institution in the Office of Admissions and is a double alumna of the institution.

The selection of this dissertation topic was influenced by the researcher's life experience as a first-generation student with a career in enrollment marketing. Information gained from the researcher's previous employer was considered for this research, providing an improved understanding of strategy development and implementation. Institutional knowledge not provided within this publication also influences the discussion and evaluation of the research.

Chapter 2: Literature Review

Overview

Obtaining a bachelor's degree has long been thought of as the "great equalizer" when it comes to socioeconomic earning potential (Torche, 2011). Many students are raised with the understanding that college is the natural next step after high school (Ma et al., 2016). However, for many college-bound students, evaluating and selecting a college to attend is the first major decision with many variables and lasting impacts that they will make in their lives (Galotti, 1995; Johnston, 2010). Their cognitive abilities are still developing while they are in their late teens, and the overwhelming impact of this decision is fraught with emotions and stress (Johnston, 2010). While the decision of which college to attend is typically made in the senior year of high school, the search process and information gathering can start as early as middle school, or seventh grade (Cabrera & La Nasa, 2000b).

With students starting the college search process in their early teens, there is plenty of time for researchers to explore the decision-making process and understand what is and is not influential to students while making this seemingly major life decision. The decision-making process when purchasing standard items has been researched for decades; however, the study of college choice and the process students work through only started in the 1980s when David W. Chapman (1981) published his model of student college choice, which led to other researchers exploring the field and adding to and improving the theory over time. D. Chapman's model was born out of a longitudinal qualitative study of students and the process they used to select a college and found that students are influenced by a set of personal and external influences (Chapman D. W., 1981)

This chapter also discusses first-generation college students as a group, the differences in how first-generation college students approach the college search and selection process, their fears and motivations in comparison to those of continuing-generation students, and what is needed to ensure the success of first-generation college students once they decide to matriculate to a specific college or university.

This chapter begins by providing background on first-generation college students and their specific needs in comparison to continuing-generation students and why the former population is important to college and university enrollment offices. The chapter continues by exploring D. Chapman's original work and shows the progression of his model throughout the years with other researchers adding to and improving on the model. The chapter also includes a section about how the original 1981 model is outdated when it comes to 21st-century university recruiting, especially in terms of race and ethnicity and the nontraditional student. Ultimately, the chapter concludes with how researchers can learn from previous qualitative research in this field and take a quantitative approach to evaluating the student college choice process.

Higher Education and First-Generation College Students

Why Seek Higher Education?

It's generally understood that the underlying expectation of higher education institutions is to provide the degree seeker with knowledge and information in a particular field of study to prepare the student for the workforce (Haigh & Clifford, 2011). When Harvard was founded in 1636, it was the first higher education institution in the United States (then the United Colonies), and its founders had the goal of creating a way to develop learned people who would ultimately benefit society (Chan, 2016). Three hundred years after establishing higher education in North America, those who complete their degree have shown evidence of change and improvement in

how they approach problems and evaluate decision making (Ma et al., 2016) compared to their nondegree-holding counterparts. As shown in Figure 1, the perceived societal benefits, and individual benefits of obtaining a bachelor's degree align with the desires of the founding members of Harvard University.

Figure 1

Economic and Social Benefits of Completing a College Degree (Chan, 2016)

Societal Benefits (public)	Individual Benefits (private)
Advanced knowledge and higher cognitive skills	Advanced knowledge
Greater productivity and higher tax payments	Improved health and life expectancy
Increased quality of civic life	Higher salaries and work benefits
Reduced crime rates	Increased personal status
Decreased reliance on governmental financial support	Greater rates of employment
Greater appreciate for diversity	Personal and professional mobility
Social cohesion	Better consumer decision-making
Increased charitable giving	Improved working conditions
Increased community service	Improved ability to adapt to new technologies
More likely to vote	Less likely to experience poverty
More likely to donate blood	More likely to attend graduate school
Less likely to smoke	More likely to raise children with higher IQ

Student expectations of financial security are often connected to the reason for obtaining a bachelor's degree. From 1967 to 2013, students' expectations of being "very well off" after completing their bachelor's degree increased 40% (Chan, 2016). In 2015, college graduates made 67% more than their peers who only completed high school (Ma et al., 2016).

However, the purpose of the higher education industry is not solely to produce potential high-income citizens. Haigh and Clifford (2011) argue that higher education institutes also need to focus on producing graduates who care for others in society and the planet. Furthermore,

Cuellar et al. (2021) state that the purpose of obtaining higher education expands beyond the increased earning potential to include increased democratic involvement, which is necessary to have a thriving democracy.

The Council for Christian Colleges and Universities

According to the National Center for Education Statistics (NCES), there are more than 4,000 degree-granting institutions in the United States (National Center for Education Statistics, 2020), and of those 4,000 institutions, 140 belong to the Council for Christian Colleges and Universities (CCCU; (Council for Christian Colleges and Universities, n.d.) with more than 500,000 students enrolled worldwide (Council for Christian Colleges & Universities, 2021). The CCCU's mission "is to advance the cause of Christ-centered higher education and to help our institutions transform lives by faithfully relating scholarship and service to biblical truth" (Council for Christian Colleges & Universities, 2021). CCCU schools are more likely to have first-generation college students than their non-CCCU-affiliated private institution counterparts are (Econsult Solutions, 2021).

The What and Why of First-Generation Students

Enrollment trends estimate that one quarter to one third of incoming students are considered first-generation students (Cuellar et al., 2021). By definition, a first-generation student is any "student whose parents do not have bachelor's degrees" (Engle & Tinto, 2008). When it comes to a process that for many students relies heavily on parent involvement and their experience with higher education (Hossler et al., 1999), how do first-generation students navigate the college search and selection process? Research shows that first-generation college students are less likely to receive the help they need during the college choice process (Fallon, 1997). Searching for and applying to colleges, which may seem like the obvious next step for

many students after high school, comes with a unique set of challenges when neither parent graduated with a 4-year degree. Researchers have found that first-generation college students may lack the cultural understanding of what it takes to apply to college and how to start the search process due to the fact their parents have limited experience and understanding and what steps are involved (Holland, 2020). In 1996, it was speculated that first-generation college students would matriculate to college at higher numbers than ever before (Terenzini et al., 1996). However, in 2008, a study by the Pell Institute for the Study of Opportunities in Higher Education found that first-generation college students were underrepresented on college campuses compared to their continuing-generation counterparts (Engle & Tinto, 2008). At 4-year public institutions, first-generation college students only comprise 18% of the student population while constituting 27% of the population at public 2-year institutions (Engle & Tinto, 2008). In 2018, Toutkoushian et al. found that students with no college-educated parents were 9% less likely to enroll in a 4-year institution than their peers with two college-educated parents.

The Pell Institute for the Study of Opportunities in Higher Education, a group that conducts and disseminates research and policy analysis to encourage policymakers, educators, and the public to improve educational opportunities and outcomes for low-income, first-generation, and disabled college students (The Pell Institute for the Study of Opportunity in Higher Education, n.d.), found that a majority of first-generation college students come from underrepresented minority groups and are typically of a lower socioeconomic status than continuing-generation students (Engle & Tinto, 2008), and Black first-generation students are declining in representation faster than any other ethnic group (Saenz et al., 2007). First-generation college students are also more likely to speak a language other than English at home and have lower standardized test scores (Bui, 2002; Ishitani, 2005). Toutkoushian et al. (2018)

also found that females are more likely than males to make plans to take the necessary standardized tests for their college application and eventually enroll in college. Pitre et al. (2006) found that Black students begin the search phase with high predispositions to continue their education beyond a high school level; however, unlike their White counterparts, this predisposition fades as they continue throughout their high school career due to a lack of family support, knowledge of the higher education process, and/or access to prep courses, which causes them to perform below the averages of their White classmates. Pitre et al. also found that Black students had significantly less support or encouragement from adults around them compared to White students. This lack of support leads to significantly less knowledge of and support in how to navigate the search and choice phase of the college search and selection process (Pitre et al., 2006).

Being the first in one's family to decide to attend college may come with significant challenges including but not limited to cultural differences, financial opportunities, and educational deficits (Toutkoushian et al., 2018). In the low-income first-generation college student population, only 11% obtained their bachelor's degree after 6 years compared to 55% of continuing-generation students (Engle & Tinto, 2008). Understanding the frame of reference and selection process first-generation college students use will help enrollment marketing offices better evaluate the ways in which they communicate with this population of prospective students (Toutkoushian et al., 2018).

The College Evaluation Process

It is important to understand that while, first-generation college students and their continuing-generation peers may in many respects appear very similar on an applicant profile, first-generation college students approach the entire college search and selection process with a

different frame of mind and fundamental understanding of the process. Hossler and Gallagher (1987) discovered that in general, students approach the college search and selection process in three distinct steps with the search phase being the second step, which occurs within the student's sophomore or junior year of high school. However, due to the lack of access to resources early on in their high school tenure, first-generation college students do not typically start this process at the same time as their continuing-generation peers (Holland, 2020). Pitre et al. (2006) argue that the standard models examining college choice do not consider the variety of differences that comes with different races and ethnicities and therefore do not speak to the entirety of the college-bound student experience.

Rather than follow the linear three-step approach of predisposition, search, and choice (Hossler & Gallagher, 1987), Holland (2020) discovered that first-generation college students use three distinct frames when approaching the college search and selection process. The three frames are the incidental frame, the personal fit frame, and the limited frame. The most common frame used in Holland's study was the incidental frame (2020) and Holland found that first-generation college applicants viewed individual school characteristics as secondary to their main goal of college attendance. However, some students used a limited frame and focused on evaluating colleges according to a narrow set of criteria. A small number of students made use of the personal fit frame and saw the college search as a self-actualization journey.

While it may look different for first-generation college students than for continuing-generation students, parental involvement is an important factor in the selection process. When students are empowered to make their college decision with support, encouragement, and involvement from their parents, the decision feels more informational than permissive (Mitchall & Jaeger, 2018).

The Role of Influencers in the Decision-Making Process

Not having parents who attended college not only impacts students' motivation to attend college; it also impacts whether they attend a public or private college and whether they pursue a 2-year or 4-year degree (Ishitani, 2005). This might not seem to be a problem or obstacle for first-generation college students; however, when generations of students are not exposed to higher education as an option, it entrenches family trees in lower socioeconomic classes, and with each undereducated generation, navigating a way up to a higher socioeconomic class becomes increasingly challenging (Ishitani, 2005). Research specifically examining first-generation college students and their experience throughout the college search and selection process is not nearly as extensive as that generalizing the population of college-bound students. However, when researchers studied first-generation college students who completed their 4-year degree, parental support was a key factor in whether the student would ultimately be successful (Cabrera & La Nasa, 2000a).

Saenz et al. (2007) found that while parents may not be the greatest source of motivation and information for their first-generation degree-seeking students, high school counselors played the role of significant influencers for first-generation students. However, Holland (2020) found that high school counselors have limited time, and they may enter the conversation with students with preconceived notions about the student's desires regarding an academic institution and intellectual aptitude, therefore making the counselor's input less effective. Either way, the role the counselor plays may be vital to some first-generation college students, so enrollment marketing departments need to provide quality content and access to high school counselors so that students of all economic and educational backgrounds can be set up for success. This is in line with Johnson's (2010) research indicating that with the increase in available information,

enrollment marketing offices need not only focus on communicating with the student but should expand their reach to parents and other sources of influence for students. Being intentional in providing equitable access to information about higher education opportunities allows all socioeconomic classes to navigate the college search and selection process regardless of their previous familial educational achievements.

A 2018 study on the impact of parental influence on low-income first-generation college students' motivation to attend college revealed that when parents listened to their student and provided support or suggestions throughout the search, it empowered the students to feel that they had the freedom to make their own decisions about college matriculation (Mitchall & Jaeger, 2018). Bui (2002) also found that significant motivation for first-generation college students to pursue a degree comes from wanting to gain respect and status for their family. Students stated that earning a degree will allow them more opportunities to earn a higher income, and they can then in turn assist the family financially (Bui, 2002). This follows Toutkoushian et al.'s (2018) comments on human capital theory indicating that higher educational achievements lead to better opportunities to increase earnings, which may break the cycle of poverty in some families.

However, not all parental influence has a positive impact on first-generation college students' college choice process. Parents of first-generation college students are more likely than continuing-generation parents to limit the scope of the search to 2-year colleges or put geographic boundaries on the search, both due to financial concerns (Holland, 2020). While a majority of first-generation college students start their educational journey at 2-year colleges (Engle & Tinto, 2008), research shows that if first-generation college students start at a 4-year institution, they have significantly better chances of ultimately obtaining their degree than if they

start at a 2-year college with hopes to transfer after receiving their associate's degree (Bui, 2002). Holland (2020) argues that researchers need not only consider a one-size-fits-all approach to first-generation college students' influence and motivation but should rather examine how enrollment marketing departments interact with first-generation college students and their parents.

Understanding that first-generation college students will typically demonstrate more financial need (Engle & Tinto, 2008) and express concerns about financing their education (Bui, 2002), enrollment marketing departments should focus on providing information to both the student and the parent about access to financial aid and the various types of aid available to students.

The Student College Choice Model

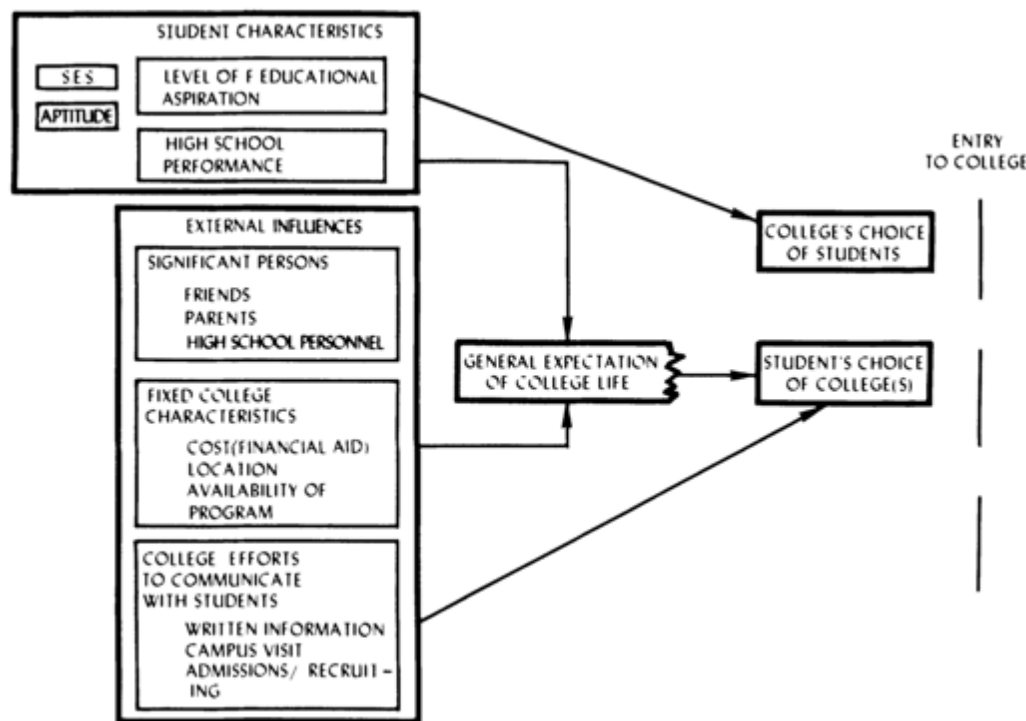
Origination of the Student College Choice Model

D. Chapman (1981) found that there had been a substantial amount of research regarding what influences college-bound students' aspirations to attend university, but there was a gap in understanding the process and the "why" behind how students ultimately decided where to attend. To achieve this, he conducted a longitudinal study that examined many factors, including personal and external forces on students' lives and their decision making. He stated that it is important to consider more than the single point in time of when the decision was made and examine both the "background and current characteristics of the student" (Chapman D. W., 1981). This implies that D. Chapman understood that decision making does not happen in a vacuum; rather, there are many forces at play when it comes to making decisions. While marketing research already understood this, D. Chapman's research was the first to highlight this concept for college choice and selection among college-bound students.

D. Chapman's research led to finding three main categories that influence a student's decision-making process: "(1) the influence of significant persons; (2) the fixed characteristics of the institution; and (3) the institution's own efforts to communicate with prospective students" (Chapman D. W., 1981). Figure 2 shows the relationship between the influences and how it leads to the student's decision to enroll at a specific college or university.

Figure 2

Influences on Student College Choice (Chapman, D. W., 1981)



D. Chapman's research revealed that personal influences, namely close family, and friends, are a major influence in the ultimate decision making of the college-bound student in addition to fixed variables or attributes of a college or university. The fixed variables are cost, location, financial aid opportunities, and the availability of specific academic programs or majors (Chapman D. W., 1981). D. Chapman saw these as variables students would be able to compare

and contrast throughout their search and decision process before applying and ultimately confirming their enrollment at any higher education institution.

D. Chapman discovered differences between high-achieving students compared to lower-achieving students as well as how socioeconomic status impacts the mobility of and overall options available to students (Chapman D. W., 1981). However, even with these differences in the student's makeup and background, the three categories remained the same in terms of what ultimately influenced students to select a college or university in which to enroll.

The student college choice model D. Chapman (1981) created was foundational research for many who came after him (Chapman, R. G., 1986; Cabrera & La Nasa, 2000b; Hossler & Gallagher, 1987; Johnston, 2010). Hossler and Gallagher's (1987) research simplified the process, categorized the process in stages, and no longer examined the process from a fixed variables perspective. The three stages Hossler and Gallagher proposed are predisposition, search, and choice. However, they suggest that enrollment marketing offices begin targeting students much earlier than previously common practice to reach them in a "pre-search" stage in an attempt to influence their frame of reference when comparing institutions. While the college selection decision typically happens in the senior year of high school, the search process and information gathering can start as early as middle school, or seventh grade (Cabrera & La Nasa, 2000b). Considering the lack of previous experience of parents of first-generation students have when it comes to the college search and selection process, how do D. Chapman's stages relate to their experience? This study answers that question.

Expansion of the Student College Choice Model

Since D. Chapman published his findings on the student college choice model and introduced the three categories of influence on students, researchers have been expanding and

adapting the research to include more steps (Chapman R. G., 1986; Cabrera & La Nasa, 2000b; Pitre et al., 2006) and more insights into decision mapping and influence (Galotti, 1995; Johnston, 2010) and comparing it to established marketing decision-making theories (Rosen et al., 1998). Many of the researchers who expanded on D. Chapman's original work also followed the design approach of a longitudinal study to follow and track students as they worked through the decision-making process.

While D. Chapman's (1981) research focused on three categories of influence, R. Chapman (1986) expanded on the research to include a linear model of the different stages through which students progress as they are making the decision to attend a college or university. The stages established by R. Chapman are pre-search behavior, search behavior, application decision, choice decision, and matriculation decision (Chapman R. G., 1986). R. Chapman created the stages to help group when decisions are made into a rigid linear model so enrollment marketing departments could better understand the ages at which students typically fall into stages. Following D. Chapman's research, there are fixed variables that fall into the search stage that include consulting with personal influencers (parents and other adults in the student's life) as well as gathering copious amounts of information regarding the same fixed variables that D. Chapman found to be important to students. For R. Chapman (1986), the choice stage is bound by the number of institutions to which a student was granted admission.

Hossler and Gallagher's (1987) research followed R. Chapman's closely in date of publication, and they simplified the process from five stages to three: predisposition, search, and choice. However, they suggested that enrollment marketing offices start targeting students much earlier than previously thought to reach them in the pre-search stage and attempt to influence their frame of reference when comparing institutions.

Cabrera and La Nasa (2000b) found that once students arrived at the choice stage, their options were directly related to the extent to which the student completed the search stage. It is important to remember that R. Chapman found that the choice stage was bound by how many institutions offered the student admission (1986). Cabrera and La Nasa followed Hossler and Gallagher's (1987) simplified approach and kept it to three stages: predisposition, search, and choice (Cabrera & La Nasa, 2000b). Cabrera and La Nasa (2000b) defined predisposition as the background of the student far before they were in the search stage, which is a new development from D. Chapman and R. Chapman's model. What influences did the students have at home or at school that would impact their worldview of higher education? Did their socioeconomic status matter to the overall desire to attend an institution of higher education? Cabrera & La Nasa found that socioeconomic status set students apart from one another, and therefore, students who were more affluent were more likely to be predisposed to have a worldview that included higher education as the next step than those who were less affluent (Cabrera & La Nasa, 2000b). Students who were more affluent tended to have more influencers who had experience with higher education, which led to the students having a better understanding and grasp of what it takes to apply and attend college or university.

Looking specifically at D. Chapman's original research on the personal influences of those around the student, Johnston (2010) found that, while parents were most influential, coaches have high levels of influence as well. This was new in the field of research of student college choice but followed the pattern laid out by D. Chapman in the 1980s. Johnston took the high ranking of non-parental adults to mean that students with either an unstable home life or those with parents who did not attend postsecondary school looked to parental figures in their life for advice and influence. Adding opinion leaders who are outside the home to the student

college choice framework opened new avenues for communicating with the students during the search and choice stages from R. Chapman (1986) and Cabrera and La Nasa's (2000b) staged approach.

Johnston (2010) confirmed that the fixed variable of location from D. Chapman's (1981) original research was important to students. Beyond just where the campus was physically located, Johnston found that students had a higher propensity to matriculate if they were able to visit and experience the campus in person. With the proliferation of social media and high technology options available to students, Johnston found that a high-touch approach was more influential than only high tech.

While social media and virtual tours were not available in the 1980s when D. Chapman conducted his initial research in the area of college choice, these high-tech virtual offerings would follow from what he posited. D. Chapman theorized that a major category that influenced a student's decision to enroll at a college or university was how the enrollment marketing team communicated with the student. R. Chapman (1986) believed that students progressed through a rigid system of search and comparison and needed reasons to continue to keep a college or university in their consideration pool. However, Johnston (2010) postulated that the standard communication model of sender to receiver is changing, and enrollment marketing departments need to be aware of the shift in the desires of their prospective students. The shift is taking the form of appearing more like a receiver to sender model (Johnston, 2010) in which students are making clear what is important to them in marketing materials and when they are on campus visiting, and campuses should heed their requests if they wish to remain competitive in the higher education landscape.

Although the landscape and communication model may be shifting and the research has expanded since D. Chapman's original work, targeting students for whom an institution is a "safe school", or an institution from which the student is confident they will receive a positive admission decision (Chapman R. G., 1986), may be a strategic approach for institutions to pad the bottom portion of their admission pool. Even with this approach, the college choice model would still be relevant, as students may have multiple options for safe school applications.

The literature on how students research and ultimately decide where to attend college or university (Chapman D. W., 1981) has certainly shifted from the first longitudinal study published in 1981. It now spans decades in which there were many advances in technology and shifts in consumer behavior. The bulk of the research on the student college choice model from D. Chapman has not changed significantly. However, not all researchers agree with this approach (Iloh, 2018; Pitre et al., 2006), and their concerns and suggestions for relevant change are discussed in a later section of this paper.

Concerns with the Student College Choice Model

Not everyone agrees with D. Chapman's approach or takes his findings as truth in all circumstances. Even D. Chapman alluded to the limitations of his study, stating that he only examined the traditional college-bound student route, which is high school to college or university (Chapman D. W., 1981). He made references to socioeconomic status being advantageous to those who fell into higher income brackets, who had more access to opinion leaders experienced with higher education and stated in his limitations that he did not examine non-traditional college-bound students and their needs and desires.

What about students who do not come from homes where college is a given path? Or those without stable home lives that are willing and able to support the idea or financial demands

of leaving the home to pursue higher education? Given that first-generation students are typically from lower socioeconomic levels and non-white ethnicity groups (Saenz et al., 2007), looking outside the typical college-bound student path is essential when evaluating efforts to recruit and retain first-generation college students. Iloh (2018) suggested a framework that eliminates the concept, or, as she states, privilege of choice and examines the decision-making process of college selection outside the lens of the traditional, white, upper-middle-class, continuing generation student.

Iloh intentionally excluded “choice” labeling it as a privilege that is not afforded to all students. Iloh suggested that enrollment marketing departments take a more ecological approach to evaluating marketing efforts and looking at the student recruitment cycle. Her research posited that there are three bi-directional steps of the student decision-making process, which are entirely different from previous research. Her steps were information, time, and opportunity (Iloh, 2018). Given the disparity between socioeconomic status amongst college-bound students, Iloh did not believe that access to information and well-informed leaders allows for a proper evaluation of choice across the board. Again, specifically examining first-generation students, this bi-directional approach evens the playing field in so far as it gives enrollment marketing offices and influential figures a standard with which to measure their efforts rather than putting the entire onus on the inexperienced student while they attempt to navigate the college search and selection process.

Conclusion

The theoretical history of student college choice is relatively young. However, given the ever-changing landscape and growing competitiveness of enrollment marketing, it is no surprise that there are many researchers who are interested in how to interpret and anticipate the desires

and needs of traditional college-bound students. Looking at the foundational research conducted by D. Chapman (1981) through the adaptations of many others over a span of a few decades, the focus on a rigid process and one-size-fits-all model has decreased, and acknowledgement of the importance of flexibility in relation to student backgrounds and worldviews has increased. These changes not only speak to the social mindset of those who reside in the United States but also the general demand for more diverse campuses throughout the country. Enrollment marketing offices need to take heed of societal demands for more authentic campus populations, and that starts with understanding that not all students follow the path laid out by the foundational researchers.

Chapter 3: Methodology

Overview

This research study aimed to identify the relationship between digital marketing tactics and first-generation student matriculation at their selected institution. This chapter outlines the data collection procedure and methods used to reach the final study outcomes. The research study was quantitative and utilized anonymized historical applicant data to explore the correlation between digital marketing tactics and matriculation. Statistical methods included one-way ANOVA, t-tests, and regression.

As stated previously in chapters one and two, there is ample literature and qualitative studies that have evaluated the college choice process for high school students. However, this study attempted to fill the gap in the literature by examining the selection process from a quantitative research perspective to create a predictive model for the recruitment of domestic first-generation college students. This quantitative study used an experimental research design to examine domestic first-generation college student applicant behavior and the impact of specific digital marketing tactics. The goal of the study was to identify trends in applicants who are first-generation college students to better recruit and increase matriculation numbers of this constituent group.

Research Design and Rationale

A quantitative methodology was the most appropriate approach to explore the relationship between digital marketing tactics and their impact on the matriculation of a specific constituent group. Quantitative research strictly focuses on a measurement against a set of variables to assess impact and change as variables shift (Burke & Soffa, 2018). This quantitative study utilized a historical data set to evaluate the previous actions of first-generation college

students applying to their selected institution to provide specific insights into possible trends among this constituent group. Using historical data for this study allowed the researcher to discover and evaluate trends in behavior without emotional biases from the participant group or researcher. This study utilized ordinal and nominal data sets to answer the research hypotheses listed in chapter one to better predict what marketing tactics are influential to first-generation college students.

The research design implemented a mix of descriptive statistics, involving one-way ANOVAs and prediction equations in the form of regressions. ANOVAs look for “differences between the means of more than two groups” (Salkind, 2014), and this study compared first-generation college students who were admitted but did not accept their offer of admission with first-generation college students who were admitted and accepted their offer of admission. Commonly used in trend forecasting, regressions were used to explore the relationship between sending and receiving SMS messages and emails and first-generation college students accepting their offer of admission. The results of the linear equation provided a cursory understanding of whether SMS and emails had a significant impact on this constituent group’s acceptance of admission. The logistic regression went a step further and provided a more robust understanding of how many SMS or emails need to be sent to create a higher probability of a first-generation college student accepting their offer of admission.

Participants and Site

This study used historical data from the selected institution’s four fall entry terms (2017–2020), which consisted of 1,923 applicants ($n = 1,923$) who submitted a complete application, were accepted, live within the continental United States, and fit the definition of a first-generation college student, or any student whose parents did not have a college degree (Engle &

Tinto, 2008; Terenzini et al., 1996; Toutkoushian et al., 2018). Data was removed from the study if a student's mailing address was not in one of the 50 United States or if there was an incomplete data set for a student.

Not all 1,923 students accepted the offer of admission, and this study aimed to identify trends in the group that ultimately did accept their offer of admission to create a predictive model and improve the strategies used to recruit this constituent group.

Data Collection and Measures

The study utilized anonymized historical data from the selected institution's Office of Undergraduate Admissions for the fall entry terms of 2017, 2018, 2019, and 2020. The process of collecting the data for this study relied upon employees within the selected institution's Office of Admissions. An assistant director within the Office of Admissions gathered the SMS and email data for fall entry terms 2017–2020, anonymized the data by using a unique identification number to protect any personally identifiable information, and shared the content with the researcher via a file-sharing program. The data received by the researcher was then sent to a specialist to be cleaned up and organized so the researcher would be able to see a complete picture of the applicants and their engagement with the digital marketing efforts of the selected institution's Office of Admissions.

Once the researcher had clean and organized data, they were able to utilize SPSS to run descriptive statistical tests against the data set to find answers to the research questions posed in chapter one.

Data Analysis

ANOVA, t-tests, correlations, and regressions were performed in SPSS to evaluate the research hypotheses stated in chapter one. The dependent variable for all statistical tests was whether the student confirmed their enrollment after being admitted.

The researcher conducted initial tests of significance on the relationship between SMS and email campaigns and whether students confirmed their enrollment. A low p-value indicated a high level of significance for that digital marketing tactic having a positive impact on enrollment decisions. Multiple regression analyses (both linear and logistic) helped to pinpoint which marketing touchpoints (independent variables) had a positive impact on the likelihood of confirmation.

The regressions and ANOVAs will help the enrollment marketing team establish tactics to aid them in meeting established enrollment goals. Knowing with high statistical certainty that taking certain steps will increase the likelihood of confirmation will reduce the risk of spending budgets inefficiently and potentially decrease the time it takes for students to confirm their enrollment, thus helping the team meet matriculation goals.

Chapter 4: Results

Overview

This study aimed to assess what digital marketing touchpoints are most effective when it comes to recruitment and matriculation of first-generation college students at a private four-year institution in the Southwest region of the United States that is a member of the Council for Christian Colleges and Universities (CCCU) (“the selected institution”). The data analysis portion aimed to answer the following questions:

Research Question 1:

How does the number of emails sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Research Question 2:

How does the number of short message service (SMS) messages sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Hypothesis 1:

The number of emails sent and received has a positive effect on enrollment confirmation.

Hypothesis 2:

The number of SMS messages sent and received has a positive effect on enrollment confirmation.

Hypothesis 3:

There is a positive relationship between the number of emails sent and received and time to enrollment confirmation.

Hypothesis 4:

There is a positive relationship between the number of SMS messages sent and received and time to enrollment confirmation.

This chapter uses historical data and presents the findings for the two key research questions and four research hypotheses. First, the descriptive statistics are presented to establish a foundation of what the data includes to allow future researchers to infer the applicability of this study to their data sets. Next, the chapter details the findings for each specific research question and hypothesis and whether the findings were considered significant. For the purposes of this study, significant was anything at $p < 0.05$, and small, medium, and large effect sizes were defined as $r^2 = 0.10$, $r^2 = 0.30$, and $r^2 = 0.50$, respectively (Cohen, 1992).

Introduction to Study

The study included applications from domestic, first-generation college students who applied for the fall entry terms in 2017, 2018, 2019, and 2020 and received and were accepted. Tables 2–6 show the descriptive statistics for this specific study. Participants were excluded if they lived outside the United States, did not fit the definition of first-generation college student (defined as a student whose parents did not earn a bachelor's degree), applied as a transfer student (defined as a student who started their college career elsewhere), or did not submit a complete application. The original number of first-generation college students for fall entry terms 2017–2020 was 2,376. The total number of applicants that met the study criteria and were included in the evaluation was 1,923. The four entry terms were selected because they were the most recent and complete data set available. Selecting data from recent years allowed the

researcher to be better informed about the coming years, rather than infer that decade-old data was still applicable to current college-bound applicants. Additionally, the reason for limiting the data set to this bounded timeframe was due to limitations within the historical data available to the admission team at the selected institution. Despite the COVID-19 pandemic, which started at the end of the decision-making period for the fall 2020 entry term, the researcher decided to keep fall 2020 in the pool, because not much was known about how long or devastating the pandemic would be for the world, let alone for recruitment and higher education. Fall entry term 2021 applicants were not included, because the recruitment and application experience for these students was so vastly different given the global COVID-19 pandemic that the researcher did not want to account for or make assumptions about the numerous other variables at that could have influenced the study.

Table 2 shows the breakdown of the number of applicants for each entry year. The table shows that there was an even distribution of applicants between all the entry terms, with no significant outlying year for domestic first-generation college students. The largest entry term group was fall 2017 (511 or 26.6%), and the smallest was fall 2020 (457 or 23.8%).

Table 1

Start Term and Year

		Frequency	Percent	Valid Percent	Cumulative Percent
Entry Term	Fall 2017	511	26.6%	26.6%	26.6
	Fall 2018	469	24.4%	24.4%	51.0
	Fall 2019	486	25.3%	25.3%	76.2
	Fall 2020	457	23.8%	23.8%	100.0
	Total	1923	100.0%	100.0%	

Table 3 shows the breakdown of the admission status of the 1,923 domestic first-generation students who applied within the timeframe of this study. A status of “confirmed” means that the student confirmed their enrollment and had plans to matriculate to the university in the fall of their specific entry term year. Four hundred and sixty-seven (24.3%) applicants fell into this category for this study. This category is a key success indicator for admissions departments; the goal is to convert as many applicants as possible into this category by the end of the application cycle. A status of “cancel acceptance” means that the university never heard back from the student on their enrollment decision. Therefore, the admissions department canceled the offer of acceptance to that student, and matriculation did not happen. Six hundred and fifty (33.8%) applicants fell into this category for this study. A status of “declined” means that the student did not accept their offer of admission and did not matriculate to the university in the fall of their entry term year. Eight hundred and six (41.9%) applicants fell into this category for this study. For the purposes of this study, “cancel acceptance” and “declined” were combined to create two groups: “confirmed” with 467 (24.3%) and “not confirmed” with 1456 (75.7%), which are shown in Table 4.

Table 2*Application Status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Admission Status	Cancel Acceptance	650	33.8%	33.8%	33.8%
	Confirmed	467	24.3%	24.3%	58.1%
	Declined	806	41.9%	41.9%	100.0%
	Total	1923	100.0%	100.0%	

Table 3*Application Status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Admission Status	Not Confirmed	1456	75.7%	75.7%	75.7%
	Confirmed	467	24.3%	24.3%	100.0%
	Total	1923	100.0%	100.0%	

Table 5 displays the breakdown between gender assigned at birth of the applicants. The applicant pool skewed predominately female, with 1,319 (68.6%) applicants identifying as female and 604 (31.4%) identifying as male.

Table 4*Gender*

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	1319	68.6%	68.6%	68.6%
	Male	604	31.4%	31.4%	100.0%
	Total	1923	100.0%	100.0%	

Table 6 indicates the breakdown of the state of residency that each applicant claimed when applying to the university. Thirty-three states were represented in the study, with the majority of applicants (1,614 or 83.9%) coming from California. For the purposes of this study, all non-California residents were combined into a single group, and Table 7 shows the percentage breakdown between California (1,614 or 83.9%) and non-California (309 or 16.1%) residents at the time of applying as domestic first-generation college students.

Table 5

State of Residency

		Frequency	Percent	Valid Percent	Cumulative Percent
State of Residency	AK	3	0.2%	0.2%	0.2%
	AZ	43	2.2%	2.2%	2.4%
	CA	1614	83.9%	83.9%	86.3%
	CO	33	1.7%	1.7%	88.0%
	CT	1	0.1%	0.1%	88.1%
	DE	1	0.1%	0.1%	88.1%
	FL	4	0.2%	0.2%	88.4%
	HI	47	2.4%	2.4%	90.8%
	ID	12	0.6%	0.6%	91.4%
	IL	12	0.6%	0.6%	92.0%
	IN	4	0.2%	0.2%	92.3%
	KS	1	0.1%	0.1%	92.3%
	KY	1	0.1%	0.1%	92.4%
	MA	2	0.1%	0.1%	92.5%
	MI	6	0.3%	0.3%	92.8%
	MN	6	0.3%	0.3%	93.1%
	MO	2	0.1%	0.1%	93.2%
	MT	3	0.2%	0.2%	93.3%
	NE	3	0.2%	0.2%	93.5%
	NJ	3	0.2%	0.2%	93.7%
	NM	7	0.4%	0.4%	94.0%
	NV	21	1.1%	1.1%	95.1%
	OH	3	0.2%	0.2%	95.3%
	OR	18	0.9%	0.9%	96.2%
	PA	2	0.1%	0.1%	96.3%
	SC	2	0.1%	0.1%	96.4%
	SD	1	0.1%	0.1%	96.5%
	TN	2	0.1%	0.1%	96.6%
	TX	16	0.8%	0.8%	97.4%
	UT	3	0.2%	0.2%	97.6%
	VA	1	0.1%	0.1%	97.6%
	WA	43	2.2%	2.2%	99.8%
	WI	3	0.2%	0.2%	100.0%
	Total	1923	100.0%	100.0%	

Table 6*State of Residency*

		Frequency	Percent	Valid Percent	Cumulative Percent
State of Residency	Non-California Resident	309	16.1%	16.1%	16.1%
	California Resident	1614	83.9%	83.9%	100.0%
	Total	1923	100.0%	100.0%	

Impact of Digital Marketing Tactics on Matriculation Decisions

RQ1 and RQ2 were designed to evaluate the impact of specific digital marketing tactics on a domestic first-generation college student and their decision about whether to confirm their enrollment with the selected institution. To evaluate the impact of specific marketing tactics, the researcher first needed to determine if there was a significant relationship between enrollment confirmation and emails (RQ1) or enrollment confirmation and text messages (RQ2). Table 10 shows that there was a significant relationship ($p < 0.001$) between emails and application status or enrollment decision. Therefore, one can reject the null hypothesis that emails do not have a significant effect on the enrollment decisions of domestic first-generation college students. Table 14 shows that there was a significant relationship ($p < 0.001$) between text messages and matriculation. Therefore, one can reject the null hypothesis that text messages do not have a significant effect on the enrollment decisions of domestic first-generation college students.

Table 8 displays the frequency of emails sent within the bounds of the study, while Table 9 shows that the mean number of emails that were sent to the applicants was slightly greater than 10 (10.21). Table 8 shows that the largest group (371 or 19.3% of applicants) received an email from the admissions department. The second largest group (153 or 8.0%) received four emails from the admissions department. The wide range in number of emails sent to an applicant can

depend upon how long the applicant was in the system prior to applying or if they decided to opt out of emails at any point in the admissions process.

Table 7

Email Sends

		Frequency	Percent	Valid Percent	Cumulative Percent
Email Sends	0	371	19.3%	19.3%	19.3%
	1	86	4.5%	4.5%	23.8%
	2	48	2.5%	2.5%	26.3%
	3	62	3.2%	3.2%	29.5%
	4	153	8.0%	8.0%	37.4%
	5	76	4.0%	4.0%	41.4%
	6	71	3.7%	3.7%	45.1%
	7	88	4.6%	4.6%	49.7%
	8	80	4.2%	4.2%	53.8%
	9	115	6.0%	6.0%	59.8%
	10	97	5.0%	5.0%	64.8%
	11	74	3.8%	3.8%	68.7%
	12	56	2.9%	2.9%	71.6%
	13	49	2.5%	2.5%	74.2%
	14	49	2.5%	2.5%	76.7%
	15	37	1.9%	1.9%	78.6%
	16	34	1.8%	1.8%	80.4%
	17	27	1.4%	1.4%	81.8%
	18	17	0.9%	0.9%	82.7%
	19	18	0.9%	0.9%	83.6%
	20	23	1.2%	1.2%	84.8%
	21	14	0.7%	0.7%	85.5%
	22	23	1.2%	1.2%	86.7%
	23	16	0.8%	0.8%	87.6%
	24	26	1.4%	1.4%	88.9%
	25	19	1.0%	1.0%	89.9%
	26	24	1.2%	1.2%	91.2%
	27	8	0.4%	0.4%	91.6%
	28	13	0.7%	0.7%	92.3%
	29	9	0.5%	0.5%	92.7%
	30	8	0.4%	0.4%	93.1%
	31	8	0.4%	0.4%	93.6%
	32	10	0.5%	0.5%	94.1%
	33	9	0.5%	0.5%	94.5%
	34	10	0.5%	0.5%	95.1%
	35	10	0.5%	0.5%	95.6%
	36	8	0.4%	0.4%	96.0%
	37	8	0.4%	0.4%	96.4%
	38	3	0.2%	0.2%	96.6%
	39	6	0.3%	0.3%	96.9%
	40	10	0.5%	0.5%	97.4%
	41	5	0.3%	0.3%	97.7%
	42	5	0.3%	0.3%	97.9%
	43	8	0.4%	0.4%	98.3%
	44	10	0.5%	0.5%	98.9%
	45	1	0.1%	0.1%	98.9%
	46	8	0.4%	0.4%	99.3%
	47	4	0.2%	0.2%	99.5%
	48	3	0.2%	0.2%	99.7%
	49	2	0.1%	0.1%	99.8%
	50	1	0.1%	0.1%	99.8%
	53	2	0.1%	0.1%	99.9%
	57	1	0.1%	0.1%	100.0%
Total		1923	100.0%	100.0%	

Table 8*Email Sends*

	N	Minimum	Maximum	Mean	Std. Deviation
Email Sends	1923	0	57	10.21	10.719
Total Applicants	1923				

Table 10 shows that there was a significant relationship ($p < 0.001$) between emails and application status or enrollment decision. Therefore, one can reject the null hypothesis that email does not have a significant impact on the enrollment decisions of domestic first-generation college students.

Table 9*Email Sends and Application Status*

Test Value = 0							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Application Status	24.829	1922	<.001	<.001	.243	.22	.26
Email Sends	41.775	1922	<.001	<.001	10.211	9.73	10.69

Table 11 displays the correlation between emails and application status or enrollment decision. The data indicated there was a significant correlation ($p < .001$; $r = 0.162$) between emails received and application status or enrollment decision. It is considered a weak positive relationship because of the small effect size ($r^2 = 0.026244$).

Table 10*Email Sends and Application Status*

		Application Status	Email Sends
Application Status	Pearson Correlation	1	.162**
	Sig. (2-tailed)		<.001
	N	1923	1923
Email Sends	Pearson Correlation	.162**	1
	Sig. (2-tailed)	<.001	
	N	1923	1923

** Correlation is significant at the 0.01 level (2-tailed).

Table 12 displays the frequency of text messages sent and received by students. Table 13 indicates that the mean number of text messages sent and received was 3.2. The data in Table 12 indicates that a majority of applicants (889 or 46.2%) never received a text message from the admissions department, while the second largest group (234 or 12.2%) received one text message from the admissions department.

Table 11*Total Text Messages Sent and Received*

		Frequency	Percent	Valid Percent	Cumulative Percent
Total Text Messages Sent and Received	0	889	46.2%	46.2%	46.2%
	1	234	12.2%	12.2%	58.4%
	2	85	4.4%	4.4%	62.8%
	3	93	4.8%	4.8%	67.7%
	4	101	5.3%	5.3%	72.9%
	5	99	5.1%	5.1%	78.1%
	6	92	4.8%	4.8%	82.8%
	7	57	3.0%	3.0%	85.8%
	8	56	2.9%	2.9%	88.7%
	9	42	2.2%	2.2%	90.9%
	10	33	1.7%	1.7%	92.6%
	11	13	0.7%	0.7%	93.3%
	12	19	1.0%	1.0%	94.3%
	13	21	1.1%	1.1%	95.4%
	14	15	0.8%	0.8%	96.2%
	15	11	0.6%	0.6%	96.7%
	16	8	0.4%	0.4%	97.1%
	17	9	0.5%	0.5%	97.6%
	18	8	0.4%	0.4%	98.0%
	19	5	0.3%	0.3%	98.3%
	20	4	0.2%	0.2%	98.5%
	21	5	0.3%	0.3%	98.8%
	22	1	0.1%	0.1%	98.8%
	23	4	0.2%	0.2%	99.0%
	24	1	0.1%	0.1%	99.1%
	25	1	0.1%	0.1%	99.1%
	26	1	0.1%	0.1%	99.2%
	27	1	0.1%	0.1%	99.2%
	28	1	0.1%	0.1%	99.3%
	29	3	0.2%	0.2%	99.4%
	30	4	0.2%	0.2%	99.6%
	33	1	0.1%	0.1%	99.7%
	37	2	0.1%	0.1%	99.8%
	39	1	0.1%	0.1%	99.8%
	49	1	0.1%	0.1%	99.9%
	50	1	0.1%	0.1%	99.9%
	52	1	0.1%	0.1%	100.0%
	Total	1923	100.0	100.0	

Table 12*Total Text Messages Sent and Received*

	N	Minimum	Maximum	Mean	Std. Deviation
Total Text Messages Sent and Received	1923	0	52	3.20	5.268
Total Applicants	1923				

Table 14 shows that there was a significant relationship ($p < 0.001$) between text messages and matriculation. Therefore, one can reject the null hypothesis that text messages do not have a significant impact on the enrollment decisions of domestic first-generation college students.

Table 13*Text Messages and Application Status*

Test Value = 0							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Application Status	24.829	1922	<.001	<.001	.243	.22	.26
Total Text Messages Sent and Received	26.668	1922	<.001	<.001	3.204	2.97	3.44

Table 15 shows that there was a significant relationship and positive correlation between total text messages sent and received and application status or enrollment decision ($p < .001$; $r = 0.246$). It is considered a strong positive relationship because of the small effect size ($r^2 = 0.060516$). This indicates that text messages have a strong positive correlation with application status or enrollment confirmation decisions for domestic first-generation college students at the selected institution.

Table 14*Text Messages and Application Status*

		Application Status	Total Text Messages Sent and Received
Application Status	Pearson Correlation	1	.246**
	Sig. (2-tailed)		<.001
	N	1923	1923
Total Text Messages Sent and Received	Pearson Correlation	.246**	1
	Sig. (2-tailed)	<.001	
	N	1923	1923

** Correlation is significant at the 0.01 level (2-tailed).

Tables 16–18 explore the relationship between email sends and text messages sent and received and the impact both have on enrollment decisions for domestic first-generation college students. The regression output in Table 16 shows that one should not reject the null hypotheses for H1 and H2, because it shows a significant relationship between both emails and text messages and enrollment decisions ($p < 0.001$). In Table 16, there is a positive correlation ($r^2 = 0.61$) between both email sends and text messages sent and received and application status.

Table 15

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.249 ^a	.062	.061	.416

^a. Predictors: (Constant), Email Sends, Text Messages Sent and Received

Table 16

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.953	2	10.976	63.547	<.001 ^b
	Residual	331.636	1920	.173		
	Total	353.589	1922			

^a. Dependent Variable: Application Status

^b. Predictors: (Constant), Email Sends, Total Text Messages Sent and Received

Table 17*Total Text Messages Sent and Received and Email Sends to Application Status^a*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.166	.013		12.640	<.001
	Total Text Messages Sent and Received	.018	.002	.222	8.570	<.001
	Email Sends	.002	.001	.046	1.765	.078

^a. Dependent Variable: Application Status

Impact of Digital Marketing Tactics on Time to Matriculation Decisions

Hypothesis 3 and Hypothesis 4 were designed to evaluate the impact of specific digital marketing tactics and their effects on the time between the institution's offer of admission and final application status or enrollment decisions. To evaluate the effect of specific marketing tactics, the researcher first needed to determine whether there was a significant relationship between emails (H3) and text messages (H4) and the time to enrollment decision.

Table 19 displays the mean number of emails received by applicants (10.21) and the mean number of days (98.44) between admission being offered and time to decision made.

Table 18*Email Sends and Time to Decision*

	N	Mean	Std. Deviation	Std. Error Mean
Time to Decision	1923	98.44	60.389	1.377
Email Sends	1923	10.21	10.719	.244

Table 20 indicates that there was a significant relationship ($p < 0.001$) between emails and time to decision. Therefore, one can reject the null hypothesis that emails do not have a significant effect on the time to decision for domestic first-generation college students.

Table 19*Email Sends and Time to Decision*

Test Value = 0							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Time to Decision	71.485	1922	.000	.000	98.443	95.74	101.14
Email Sends	41.775	1922	<.001	<.001	10.211	9.73	10.69

Table 21 presents the positive correlation between emails and time to decision ($r = 0.052$). While there was a significant relationship ($p < .001$) and a positive correlation ($r = 0.052$) between emails received and time to enrollment decision, it was a weak positive relationship with a small effect size ($r^2 = 0.002704$).

Table 20*Email Sends and Time to Decision*

		Time to Decision	Email Sends
Time to Decision	Pearson Correlation	1	.052*
	Sig. (2-tailed)		.023
	N	1923	1923
Email Sends	Pearson Correlation	.052*	1
	Sig. (2-tailed)	.023	
	N	1923	1923

*. Correlation is significant at the 0.05 level (2-tailed).

Table 22 displays the mean number of text messages sent and received by applicants (3.20) and the mean number of days (98.44) between admission being offered and time to decision.

Table 21

Total Text Messages Sent and Received and Time to Decision

	N	Mean	Std. Deviation	Std. Error Mean
Time to Decision	1923	98.44	60.389	1.377
Total Text Messages Sent and Received	1923	3.20	5.268	.120

Table 23 shows that there was a significant relationship ($p < 0.001$) between text messages and time to decision. Therefore, one can reject the null hypothesis that text messages do not have a significant effect on the time to decision for domestic first-generation college students.

Table 22

Total Text Messages Sent and Received and Time to Decision

Test Value = 0							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Time to Decision	71.485	1922	.000	.000	98.443	95.74	101.14
Total Text Messages Sent and Received	26.668	1922	<.001	<.001	3.204	2.97	3.44

Table 24 displays the negative correlation between text messages sent and received and time to decision ($r = -0.039$). While there was a significant relationship ($p < .001$) and negative correlation ($r = -0.039$) between text messages sent and received and time to enrollment decision, it was a weak negative relationship with a small effect size ($r^2 = 0.001521$).

Table 23*Total Text Messages Sent and Received and Time to Decision*

		Time to Decision	Total Text Messages Sent and Received
Time to Decision	Pearson Correlation	1	-.039
	Sig. (2-tailed)		.091
	N	1923	1923
Total Text Messages Sent and Received	Pearson Correlation	-.039	1
	Sig. (2-tailed)	.091	
	N	1923	1923

Conclusion

This chapter analyzed historical data from the selected institution's domestic first-generation college student applicant pool for fall entry terms in 2017–2020 and presented the findings around the two key research questions and four research hypotheses. In chapter five, the researcher draws conclusions from the tables in this chapter and provides insight into the application of this study to academic theory and the enrollment marketing field.

Chapter 5: Discussion

Introduction

This study has focused on evaluating two digital marketing tactics, emails sent by the college and text messages, both sent by the college and replied to by the applicant, during the recruitment process for domestic first-generation college students to the selected institution for the fall entry terms in 2017–2020. Chapter four, the data analysis portion of this study, evaluated 1,923 completed applications from students who were admitted in order to find possible trends in the applicants who confirmed their offers of admission and matriculated to the university and create specialized recruitment strategies for this constituent group.

This chapter summarizes the study, includes a discussion of the findings, provides implications for both theory and the profession of enrollment marketing, lists limitations, and closes with recommendations for future research.

Summary of the Study

Enrollment marketing offices play a key role in the recruitment and matriculation of college-bound students. Knowing which digital marketing strategies enrollment teams should invest more time and money in to inform and influence a student's decision to enroll is key for planning future tactics more effectively. First-generation college students are less likely to apply to and enroll in private, non-profit colleges than their continuing-generation counterparts (Redford & Hoyer, 2017).

What can be learned from previous admissions cycles to make effective changes to recruitment matriculation strategies to ensure that more domestic first-generation, first-time freshman students accept their admissions offers for the fall term? The purpose of this study was to provide insights into which digital marketing touchpoints work better for this specific group.

Significant relationships were found between both marketing touchpoints evaluated for this study. The following research questions and hypotheses were used to guide the data analysis in evaluating the impact of these two digital marketing tactics:

Research Question 1:

How does the number of emails sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Research Question 2:

How does the number of short message service (SMS) messages sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?

Hypothesis 1:

The number of emails sent and received has a positive effect on enrollment confirmation.

Hypothesis 2:

The number of SMS messages sent and received has a positive effect on enrollment confirmation.

Hypothesis 3:

There is a positive relationship between the number of emails sent and received and time to enrollment confirmation.

Hypothesis 4:

There is a positive relationship between the number of SMS messages sent and received and time to enrollment confirmation.

Major Findings

When running the historical admissions data through SPSS, the dependent variable was “admission status”, which indicated whether students confirmed their enrollment or declined their offers of admission for each of the four entry terms evaluated in this study.

The first research question was “How does the number of emails sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?” Table 9 indicates that one can reject the null hypothesis that email does not have a significant impact on the enrollment decisions of domestic first-generation college students.

Table 10 shows that, while emails may have had a significant effect on application status and enrollment decisions, email may not be the most effective digital marketing tactic to use when working with domestic first-generation college students.

The second research question was “How does the number of short message service (SMS) messages sent and received throughout the enrollment lifecycle affect the likelihood of a first-generation college applicant confirming their enrollment?” Table 13 shows that one can reject the null hypothesis that text messages do not have a significant effect on the enrollment decisions of domestic first-generation college students. Table 14 indicates that text messages had a strong positive correlation with matriculation decisions for domestic first-generation college students at the selected institution, suggesting that text messaging is a useful digital marketing tactic when recruiting domestic first-generation college students.

The first hypothesis stated, “The number of emails sent and received has a positive effect on enrollment confirmation” and the second hypothesis stated, “The number of SMS messages sent and received has a positive effect on enrollment confirmation.” Table 16 shows that one

should not reject the null hypotheses for H1 and H2, because it shows a significant relationship between both emails and text messages and enrollment decisions ($p < 0.001$). Table 15 shows the positive correlation ($r^2 = 0.61$) and influence that both email and text messages sent and replied to had on matriculation decisions. This further confirmed that text messages sent and replied to had a stronger positive relationship and influence on enrollment decisions than email sends for domestic first-generation college students. Table 17 indicates that the positive relationship between text messaging and enrollment decisions was nine times stronger than the relationship between email and enrollment decisions ($B = 0.018$ vs. $B = 0.002$). However, when text messages sent and replied to and email were compared in a regression, emails ceased to have a significant relationship ($p = 0.078$) with matriculation, as shown in Table 17.

The third hypothesis stated, “There is a positive relationship between the number of emails sent and received and time to enrollment confirmation.” Table 20 suggests that, while email may have played a significant role in the enrollment decision-making of domestic first-generation college students, it did not necessarily play a significant role in decreasing the time to decision after an offer of admission was given by the admissions department. Therefore, while emails played a key role in a marketing mix, email as a digital marketing tactic should not be utilized as a main influencer for encouraging matriculation decisions for domestic first-generation college students.

The fourth hypothesis stated, “There is a positive relationship between the number of SMS messages sent and received and time to enrollment confirmation.” While Table 17 indicates that text messages had an influence on time to matriculation decisions that was nine times higher than that of email, the negative correlation between the number of text messages sent and received and the time to matriculation decision indicated in Table 24 suggests that there may be a

point of diminishing returns in terms of texting and decreasing the time lapse between the admissions decision and student's enrollment decision. Table 17 and Table 24 indicate that there is room for expanding the use of text messaging, but the expansion needs to be done progressively and in a strategic manner in order to not negatively impact recruitment efforts.

Implications for Theory

As stated in chapters one and two, there is an ample amount of peer reviewed literature and qualitative studies that have evaluated the college choice process for high school students. This study examined the selection process from a quantitative research perspective. This quantitative study used experimental research design to examine domestic first-generation college students' application behaviors and the impact of specific digital marketing tactics. This study identified trends in applicants who were domestic first-generation college students in order to better recruit and increase matriculation numbers for this constituent group.

This study not only examined the college choice process for high school students from a different data perspective, but it also narrowed the scope to a specific and highly sought-after constituent group. The narrowed scope and focus on a specific constituent group contributes to the body of knowledge around college choice and selection processes of college-bound students. Starting with D. Chapman's (1981) foundational research, taking into consideration Hossler and Gallagher's (1987) condensed linear model, and understanding Johnston's (2010) postulation that the communication model is changing, this study confirmed that short, quick, and potentially less formal messaging is impactful in first-generation student recruitment and enrollment.

The results of RQ2 and H2 confirmed that text messaging is more effective than emails for domestic first-generation college students, suggesting that Johnston's (2010) assertion that the communication model is changing in such a way that college-bound students want more of a

sender to receiver model than broadcast sender to receiver model. However, H4 did suggest that there is a possibility of diminishing returns when it comes to sending text messages and time to confirmation. Exploring the influence of text messaging on time to enrollment confirmation is an area for future research, as discussed later in this chapter.

Implications for Profession of Enrollment Marketing

This study has far-reaching implications for the enrollment marketing profession in higher education and can assist enrollment marketing departments when they are establishing their recruitment strategies for upcoming recruitment years. The 2008 study by the Pell Institute for the Study of Opportunities in Higher Education found that first-generation college students were underrepresented on college campuses compared to their continuing generation counterparts (Engle & Tinto, 2008). This study provided insight into the digital marketing tactics that first-generation college students may respond to more than others.

From a problem-solving perspective, the results of this study suggest the need to diversify marketing segmentation and specifically focus on domestic first-generation college students. When enrollment offices understand and adapt their marketing efforts to help assuage fears and lack of understanding about the college application process for first-generation students, they have the potential to address the results of research studies that show that parental level of education is a key indicator of whether a child will matriculate to a college or university (Choy, 2001; Nunez & Cuccaro-Alamin, 1998; Patfield et al., 2020).

From a strategy perspective, the results of this study provide insight into a large population of incoming students with trends estimating that one-quarter to one-third of incoming students are considered to be first-generation (Cuellar et al., 2021). Given the narrow scope of this study, enrollment marketing departments can examine its approach and results to see if it is

applicable to their prospective student population and apply learnings to their strategy efforts.

This study is the first step in creating or updating current marketing strategies to include or expand the use of text messaging and reevaluate email marketing efforts.

Limitations

This study will influence the future of the theory and practice of recruiting domestic first-generation college students; however, there is still more research that can be done. While this study has validity and significance, there were several limitations on the research. In no particular order, the limiting factors included the following:

- *Scope of the sample:* This study was limited in scope; it took a narrow view of recruitment efforts for the specific constituent group. The use of only four fall entry terms was dictated by the system capabilities of the Office of Admissions, which resulted in there being 1,923 completed applications within the established boundaries of the study. Expanding this would introduce more students and therefore provide further insight into this population. There would be benefits for both the theory and profession of enrollment marketing should the study be expanded to include additional enrollment years and marketing tactics.
- *Variables selected:* This study specifically examined two digital marketing tactics in a vacuum. It did not look at various other marketing tactics (print marketing, search engine marketing (SEM), phone calls, college fair visits, etc.) and their impact on enrollment of domestic first-generation college students. Expanding the number of variables and including additional marketing tactics in a future study would further the understanding of the total impact that marketing may have on this constituent group.

- *Variables not considered:* This study did not consider the impact of variables such as financial aid and whether students were recruited for a sport. These variables are less common and not widely applicable to a large group but could impact the potential influence of the digital marketing tactics that were evaluated in this study.
- *Geographic location:* This study only examined a single university in the Southwest United States.
- *Methodology:* The methodology used for this specific study remained narrow in scope. Expanding the methodology to include additional variables such as gender, race or ethnicity, and other demographics would provide an additional level of detail to recruit this constituent group more specifically.

This study, while limited in nature, provided unique insights into the impact of digital marketing tactics of the selected institution's Office of Admissions on the domestic first-generation college students who applied for fall entry in 2017–2020. This study can be used as a foundation for similar universities and those looking to implement these digital marketing tactics in their marketing plans.

Recommendations for Future Research

The competitive nature of recruiting domestic first-generation college students will continue to rise each year. Understanding the process that first-generation college-bound students undergo to select a college or university to attend will assist universities in reaching their goals for retention and ultimately graduation (Inman & Mayes, 1999). Several aspects of this study can be adapted and used in future research. Opportunities for future research include the following:

- *Campus visit impact:* Including the variable of whether or not the student was able to visit campus would provide an additional layer of understanding, since it is

understood that visiting campus and the location of campus have a strong influence on student choice. Johnston (2010) confirmed that the fixed variable of location from D. Chapman's (1981) original research was important to students. Beyond where the campus was physically located, Johnston found that students had a higher propensity to matriculate if they were able to visit and experience the campus in person. How do the impact of SMS messages, emails, and other digital marketing tactics compare to that of a campus visit? With the results from this future research, enrollment marketing offices could make data-informed decisions about visit programs and digital marketing tactics.

- *Gender differences:* Dissecting data by gender assigned at birth would provide another level of understanding and allow for additional segmenting and strategic planning of marketing tactics. This study revealed the impact of SMS messages and email on enrollment for the homogenous group, but is there a difference in how males and females respond to digital marketing tactics? Results from this future research could provide insight into the differences between genders and assist campus enrollment teams that are tasked with increasing enrollment for one gender.
- *Race and ethnicity:* This study did not consider race and ethnicity. Including Integrated Postsecondary Education Data System (IPEDS) data would create another layer of understanding and allow for segmentation beyond first-generation student or continuing-generation student. Results from this future research could provide insights into differences between race and ethnicity groups and assist campus enrollment teams that seek a better balance of diversity in their student bodies.

- *Graduation success rate:* While recruitment efforts are important to initially attract first-generation college students to a specific university, the future success of this population lies in retention and graduation. Researchers could examine the graduation rates of this population after successful recruitment efforts and see whether there are correlations between recruitment efforts and academic success that lead to higher graduation rates within this population.
- *Time to confirmation:* This study started the process of exploring the impact of text messaging and emails on enrollment confirmation for first-generation college students and its significance. An area for future research would be exploring in more detail the impact of text messaging and emails on time to enrollment. This would require more text messages to be sent than were available in this historical data set and also require A/B testing to compare like groups and see whether there is a difference between groups while limiting other variables at play.

Conclusion

A student's opportunity to have quality access to higher education should not be limited by their parent's life experience. Multiple research studies have shown that parental level of education is a key indicator of whether their child will matriculate to a college or university (Choy, 2001; Nunez & Cuccaro-Alamin, 1998; Patfield, Gore, & Fray, 2020). First-generation college students may lack cultural understanding about what it takes to apply to college and how to start the search process due to the fact their parents have limited experience with and understanding of the scope of the college search and selection process and what steps are involved (Holland, 2020). In 2018, Toutkoushian, Stollberg, and Slaton found that students with no college-educated parents were 9% less likely to enroll in a four-year institution than their

peers with two college-educated parents. Enrollment marketing departments that do not explicitly segment their marketing strategies to include a specific approach for first-generation college students risk alienating a growing population of college-bound students.

The student college choice model brought forth by D. Chapman (1981) was foundational research for many that came after him (Chapman R. G., 1986; Cabrera & La Nasa, 2000b; Hossler & Gallagher, 1987; Johnston, 2010). The bulk of the research on the student college choice model from D. Chapman (1981) has not changed significantly throughout the decades. While many other researchers have examined the student college choice process from a qualitative perspective, this study took a quantitative approach and set out to discover actionable data for enrollment marketing departments at four-year universities so they could better recruit and matriculate domestic first-generation college students. Hossler and Gallagher (1987) proposed that enrollment marketing offices start targeting students much earlier than was previously thought in order to reach them in a “pre-search” stage and influence their frame of reference when comparing institutions. That is where the findings of this study contribute most naturally to the literature.

This study discovered that there is room for growth in using text messaging as a digital marketing tactic during the application and confirmation stages of the admission process. Text messaging is considered quick and informal and follows Johnston’s (2010) postulations about how the standard communication model of sender to receiver is changing and enrollment marketing departments need to be aware of the shift in desires of their prospective students. It is important to note that emails were also shown to have a positive impact on confirmation, but text messaging was nine times more impactful (Table 17).

As higher education institutions seek to increase diversity in their student bodies, they must take intentional steps to increase the number of first-generation college students who matriculate each enrollment cycle. The findings of the 2008 study by The Pell Institute for the Study of Opportunities in Higher Education that first-generation college students were underrepresented on college campuses compared to their continuing-generation counterparts (Engle & Tinto, 2008) cannot continue to be the status quo.

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