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Predicting application levels and matriculation yield among MBA programs: The use and application of the marketing mix and relationship marketing theories

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**Predicting application levels and matriculation yield among MBA programs:
The use and application of the marketing mix and relationship marketing theories**

by

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A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Education (Educational Leadership)

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Iowa State University

Ames, Iowa

2014

DEDICATION

To my wife, Jessica,

I am so very thankful of your unwavering support
throughout this journey.

To my children, Grady, Emory, and Haddy,
you promised to be patient with me and I promised Disney World.

You followed through on your promise
and I will follow through on my promise.

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ABSTRACT

The marketing of higher education began in earnest during the early 1970s and was given an especially prominent role in the late 1970s and early 1980s when colleges and universities witnessed large declines in applicant pools (Mahoney, 2006). Since that time, the marketing of higher education has continued to be a vital factor in the livelihood of colleges and universities. When colleges and universities are focusing on such strategic plans as increasing the strength, size, and diversity of incoming classes, marketing is an imperative component to the success of the strategic goals.

Since 2009, Master of Business Administration (MBA) programs across the United States have seen application numbers diminish at alarming rates. In 2012, MBA programs experienced a 22% decline in the median of full-time applications (GMAC, 2012). Moreover, 71% of MBA programs in the Midwest experienced a decline in applications. Because of this decline, competition for qualified prospective MBA students is at a high level (GMAC, 2012).

In this study, the researcher used the five-level model of relationship marketing to examine how relationship marketing is used on MBA program websites, applied the combination of the marketing mix and relationship marketing theories to identify marketing factors (the 5Ps of marketing: price, product, place, promotion, and people), analyzed relationships between the 5Ps of marketing, and identified factors that influence application levels and matriculation yield. The study randomly sampled 120 AACSB-accredited MBA programs from across the United States. Data for the traditional marketing mix factors (price, product, place, and promotion) and the dependent variables (application levels and matriculation yield) were obtained through various MBA program publications and MBA

program websites. The relationship marketing variable (people) data were obtained through the results of the five-level model website content analysis.

Descriptive statistics were used to examine institutional and MBA program-specific background characteristics. A Pearson correlation was conducted to explore the strength and direction of relationships between the five independent variables, and a multiple regression was performed to determine predictors of application levels and matriculation yield.

The results revealed that most MBA programs do not utilize website relationship marketing to its full potential. Faculty relationship marketing ranked the highest, with admission professionals and current students being used sparingly and alumni being used the least. The regression analysis found that the product variable is the strongest predictor of application levels and that price, product, place, and people are the strongest predictors of matriculation yield.

CHAPTER 1. INTRODUCTION

Background

As the number of college applicants began to decline in the late 1970s and early 1980s, the active marketing of colleges and universities to prospective students started to rise (Fiske, 2008). Since that time, the use of marketing theory and practice has continued to rise and plays a significant role in higher education today (Fiske, 2008). Traditional marketing and advertising practices, such as print, radio, and television, have been the primary choice of colleges and universities; however, since the mid-1990s, the Internet has had an increasingly significant role in recruiting prospective students (Klassen, 2002). In addition to traditional and Internet marketing, school admission professionals, along with other key institutional personnel such as current students, faculty, and alumni, have been integral components in marketing an institution to prospective students (Mahoney, 2006). For many prospective students, these institutional personnel are influential in the recruiting process (Mahoney, 2006; Norris, 2005). By building a strong rapport with prospective students, the institution hopes these relationships will aid in the recruitment and subsequent matriculation of prospective students (Norris, 2005). The question remains: Given that prospective students are now relying on program websites as their primary source of information (Association of International Graduate Admissions Consultants [AIGAC], 2010; Graduate Management Admission Council [GMAC], 2012), do online relationship marketing levels, along with the traditional marketing mix (price, product, place, and promotion), predict application levels and matriculation yield?

Statement of the Problem

Since 2009, the number of applicants in Master of Business Administration (MBA) programs across the United States has decreased (GMAC, 2012). In 2012, MBA programs experienced a 22% decline in the median of full-time applications (GMAC, 2012). Moreover, 71% of MBA programs in the Midwest experienced a decline in applications (GMAC, 2012). Because of the decline, competition for qualified prospective MBA students is at a high level (GMAC, 2012; Sevier, 2012).

Recent national surveys indicated that over 87% of prospective MBA students use institutional websites and, more importantly, those websites are the most influential marketing factor for prospective MBA students (AIGAC, 2010; GMAC, 2012). Prospective MBA students have stated that other important influences on college choice are communicating with school admission professionals, current students, faculty, and alumni (AIGAC, 2010; GMAC, 2012).

Although the cost of recruiting graduate students is not readily available, Noel-Levitz and the National Association of Graduate Admission Professionals (Noel-Levitz & NAGAP (2012) found that independent undergraduate institutions spend an average of \$2,185 on recruiting per incoming student. Public schools spend much less per student, \$457 on average, but their incoming class sizes are generally much larger than those at private schools, skewing this figure. Since 2007, the cost to recruit a student has swelled by 12.6%, and experts believe it will continue to climb (Noel-Levitz & NAGAP, 2012). As costs of recruiting a student continue to rise, so does the allocation of resources focused on admission and recruitment website development, updating, and maintenance (NAGAP, 2012).

Although the actual costs of developing, updating, and maintaining a webpage varies greatly,

colleges and universities are dedicating more resources to their website and e-communications (Lindbeck & Fodrey, 2009; Noel-Levitz, 2012).

As MBA admission offices continue to focus more resources on their websites (NAGAP, 2012), how are MBA programs currently utilizing their websites to engage prospective students with these potential institutional influencers? And are these website engagement initiatives assisting admission professionals in the recruitment process? Or are traditional marketing mix variables (price, product, promotion, and place) better predictors of application numbers and matriculation yield? As MBA programs look for effective ways to communicate with prospective students, answering these questions could assist MBA enrollment management teams' marketing strategies by highlighting where to allocate resources.

Purpose of the Study

The purpose of this study was twofold. National prospective MBA student surveys (AIGAC, 2010; GMAC, 2012; Sevier, 2012) indicated that over 87% of prospective MBA students utilize program websites as their top source for program information and that school admission professionals, current students, faculty, and alumni are strongly influential in the recruiting process. First, this study examined if and how MBA programs are using these key personnel for the recruiting process on their websites. Using Kotler and Armstrong's (1996) five-level relationship marketing model (Han, Hu, Bai, & Jang, 2005; Kittle & Ciba, 2001; Klassen, 2002) and the four engagement features (admission professionals, current students, faculty, and alumni), the researcher developed a data collection form to assess MBA program relationship marketing. An online content analysis was conducted to collect relationship

marketing data. The four engagement features were based on national prospective MBA student survey results (GMAC, 2012; Sevier, 2012).

Second, this study examined the traditional marketing mix theory (price, product, promotion, and place) in combination with the theory of relationship marketing (people), to predict MBA program matriculation yield and application levels. By revealing which independent variables are strong predictors of matriculation yield and application levels, MBA administrators will be equipped with better knowledge of where to focus resources in attempting to enhance MBA student enrollment.

Theoretical Framework

In 1960, Jerome McCarthy argued that four constructs need to be considered when marketing an item: price, product, place, and promotion—and the widely-known marketing mix was conceived (Anderson & Taylor, 1995). Today, the original marketing mix, commonly referred to as the “4Ps” of marketing, is the foundation of many marketing textbooks and a common theoretical and practical framework for both researchers and practitioners (Constantinides, 2006). However, since the mid-1980s, relationship marketing theory has been discussed in both business research and practice (Berry, 1983; Magrath, 1986). These researchers argued that more than the traditional marketing mix is needed to attract and retain customers. Building trust with prospective customers is vital when trying to convert them into an actual customer (Magrath, 1986).

The theories of the original marketing mix and relationship marketing was the framework that guided this study. In addition, the commitment–trust theory of relationship marketing supported the overarching relationship marketing framework. Morgan and Hunt (1994) popularized their proposed commitment–trust theory by finding key components to

successful relationship marketing: commitment and trust. They concluded that commitment and trust are not simply components to relationship marketing, but the focal point of success.

Methodological Approach

Kotler and Armstrong (1996) proposed a five-level relationship marketing model in building trust with prospective customers. These five progressive relationship marketing levels were described as basic, reactive, accountable, proactive, and partnership. Kotler and Armstrong argued that, at the basic level, there is little to no trust because of lack of communication. Trust and long-lasting relationships can be fully achieved only when the customer and seller are at the partnership level. As the relationship progresses up the scale, the more likely it is that the prospective customer will become a customer. When first developed, the model was intended for traditional sales transactions; however, as the Internet became more popular, researchers have not only adjusted Kotler and Armstrong's original model to reflect Internet relationship marketing but also have further tailored it to college and university websites (Han et al., 2005; Kittle & Ciba, 2001; Klassen, 2002).

This study used a quantitative content analysis to assess the five levels of relationship marketing on the identified MBA program websites. Institutions from the United States represent over 425 of the total members of the Association to Advance Collegiate Schools of Business (AACSB) with MBA programs. Of those members, 120 programs were randomly sampled using a stratified random sampling method. A stratified random sample was used to ensure accurate representation of ranked and unranked programs. The overall random sample consisted of 31 ranked programs based on the 2013 U.S. News and World Report MBA rankings and 89 unranked programs ("Top Business Schools," 2013). Approximately 25% of the 400 AACSB-accredited MBA programs are ranked in the annual U.S. News and

World Report rankings (“Top Business Schools,” 2013). The samples of 31 ranked and 89 unranked programs reflect the overall population.

The four features of relationship marketing for this study were the focus of the assessment and were used to evaluate the four categories of the people variable: admission professionals, faculty, current students, and alumni. Based on the results, each category was given a relationship marketing assessment based on the five levels of descriptions in the five-level model of relationship marketing: (1) basic, (2) reactive, (3) accountable, (4) proactive, and (5) partnership (Kotler & Armstrong, 1996).

The data for the traditional marketing mix variables (price, product, place, and promotion) were accessed through the 2013 edition of the U.S. News and World Report’s graduate school rankings (“Top Business Schools,” 2013), the 2013 edition of The Princeton Review’s (2012) *The Best 296 Business Schools*, and the individual institutions’ MBA program websites. The “price” variable data reflected the cost of tuition. The “product” variable used a weighted average based on the importance prospective MBA students placed on the variables. The items within the product variable were ranked in order of importance: (a) rankings, (b) acceptance rate, (c) employment rate, and (d) student-to-faculty ratio. The “place” variable values were calculated by (a) the number of locations each MBA program offered as a delivery method, (b) online offerings, and (c) availability of residential living. Finally, the “promotion” variable data reflected the operating budget per student.

The independent variables were placed into two categories: relationship marketing variables and marketing mix variables. The relationship marketing variables were those that were assessed using the data collection form (as shown in Chapter 3).

Research Questions

1. What are the characteristics of the AACSB MBA programs randomly selected for this study?
2. What are the relationship marketing levels on MBA program websites?
3. Is there a correlation between the marketing variables (price, product, place, promotion, and people) among MBA programs?
4. To what extent do traditional marketing mix variables and relationship marketing levels predict the number of applications MBA programs receive?
5. To what extent do traditional marketing mix variables and relationship marketing levels predict MBA program matriculation yield?

Significance of the Study

This study is important because it sought to link MBA website relationship marketing levels, along with the traditional marketing mix variables, to the matriculation yield of students admitted to a program and the number of applications a program receives annually. In recent years, MBA programs have witnessed drastic declines in applicant pools (GMAC, 2012). Fewer applicants often result in fewer admitted students. Therefore, when schools have fewer admitted students, they must focus on increasing the matriculation yield in order to meet their incoming student enrollment goals (GMAC, 2012, Sevier, 2012). Graduate school enrollment management teams, including MBA programs, spend thousands of dollars per year recruiting prospective students and focus a large portion of their resources, both time and money, on websites and technology (NAGAP, 2012). If this study were to reveal a positive correlation between relationship marketing (people variable) and matriculation yield and application levels, these results would justify the use of website resources focusing on

relationship marketing. However, if there were no correlation, the study would indicate that the resources spent on website relationship marketing is unwarranted and those allocations should be shifted back to better predictors of the dependent variables.

This study sought to contribute to the understanding of traditional marketing and relationship marketing for MBA programs, provide enrollment management administrators a basis for improving relationship marketing on their program websites, and offer information that can be used to help improve application numbers and matriculation yield.

Definitions of Terms

Several terms are defined for use in the study:

Admitted MBA student: any person who has been offered admission to at least one MBA program but has not enrolled.

Association to Advance Collegiate Schools of Business (AACSB): established as a membership organization for business schools; a place where business schools can network and discuss issues that affect the business education industry and their institutions.

Association to Advance Collegiate Schools of Business (AACSB) accreditation: used as the basis to evaluate a business school's mission, operations, faculty qualifications and contributions, programs, and other critical areas; it ensures students that the business school is providing a top-quality education.

Internet relationship marketing: using various interactional features of the organizational website as a way to carry out relationship marketing.

Marketing: an organizational function and a set of processes for creating communication and delivering value to customers and for managing customer relationships in ways that

benefit the organization and its stakeholders (American Marketing Association [AMA], 2013).

Matriculation yield: the percentage of admitted students who choose to enroll in a particular MBA program, calculated as the number of admitted students divided by the number of enrolled students.

Prospective MBA student: any person who has interest in or has applied to at least one MBA program.

Ranked MBA program: any MBA program ranked in the top 50 according to the 2013 U.S. News and World Report graduate school rankings (“Top Business Schools,” 2013).

Relationship marketing: marketing with the conscious aim to develop and manage long-term and/or trusting relationships with customers, distributors, suppliers, or other parties in the marketing environment (AMA, 2013).

Unranked MBA program: Any MBA program not ranked according to the 2013 U.S. News and World Report graduate school rankings (“Top Business Schools,” 2013).

Summary

This study was designed to provide practical guidance for MBA program administrators and admission professionals as well as to add to the body of research relative to website relationship marketing. The quantitative content analysis can assist MBA programs in understanding the role and influence that relationship marketing plays at their prospective institutions. It may also help programs that have lofty enrollment goals to successfully implement new website recruiting initiatives or focus more resources on the traditional marketing mix predictors.

Chapter 1 provides a summary of the study. Chapter 2 provides an in-depth literature review of the history of MBA programs, factors of college choice for prospective MBA students, the history of marketing higher education, and the various ways to use relationship marketing. In addition, the marketing mix theory, relationship marketing theory, Kotler and Armstrong's (1996) five-level model of relationship marketing, and the commitment–trust theory was used to assist in framing the study.

Chapter 3 describes in detail the epistemology and theoretical perspective used in this study. In addition, the methodology, population, sample, data collection method, instrumentation, independent and dependent variables, data analysis, validity, delimitations, and limitations are discussed.

Chapter 4 presents the results of the data analyzed using SPSS v22.0. Descriptive statistics were used to answer research questions 1 and 2. Results from Pearson correlations were used to answer research question 3, and results from a multiple regression were used to answer research questions 4 and 5. Finally, Chapter 5 provides a summary and a discussion of the findings and presents recommendations for practice and future research.

CHAPTER 2. LITERATURE REVIEW

Introduction

There are many factors considered by prospective MBA students during the college choice process. Many of these factors, such as quality, reputation, financial costs, career aspirations, and promotional materials, are connected to the traditional marketing mix theory (NAGAP, 2012). MBA program administrators use price, product, place, and promotion as considerations for their marketing efforts (NAGAP, 2012). Other factors, such as relationships with admission professionals, current students, faculty, and alumni, are associated with relationship marketing theory. When recruiting prospective students, many institutions use these key personnel to build relationships with prospective students with hopes that the prospective students will matriculate to their respective institution (Mahoney, 2006). Though these institutional personnel may not realize it, they are using relationship marketing when communicating with prospective students (Klassen, 2002).

This chapter reviews the literature providing support for the marketing mix and relationship marketing factors influencing matriculation yield and application levels at MBA programs. In addition, this literature review provides a foundation and justification for the research questions to guide the study.

This literature review is divided into multiple sections. First, an overview of MBA program history is discussed. Second, MBA college choice factors are reviewed. When recruiting prospective MBA students, it is critical that MBA programs know what prospective students are considering as important factors in the selection process. Third, the marketing mix theory is reviewed as is how the theory is being applied in higher education. The marketing mix theory is the operational framework used for many of the college choice

factors for prospective MBA students. Relationship marketing theory is examined as is how the theory is being applied in higher education. Additionally, Kotler and Armstrong's (1996) five-level model of relationship marketing is reviewed along with previous studies using this operational framework. The theory of relationship marketing is the operational framework used for the "people" factor in the recruiting process and is used along with the traditional marketing mix factors. Finally, because website relationship marketing is being used within the operational framework, the e-relationship marketing features of social media and videoconferencing are reviewed because both are assessed in the five-level model of relationship marketing.

History of MBA Programs

The MBA can be traced back to the early 20th century and was developed using accounting and business-type courses (Byrne, 2011). It was modeled after the traditional American 2-year postgraduate program, garnered broad acceptance, and quickly spread across the United States (Byrne, 2011). The MBA was first developed by three Ivy League universities. The University of Pennsylvania's Wharton Business School was founded as the world's first business school in 1881 (Byrne, 2011). Nine years later, in 1900, Dartmouth College opened the first graduate school focusing on management (Byrne, 2011). Finally, in 1908, Harvard University offered the world's first MBA (Byrne, 2011).

The MBA provides graduate education in business practice areas such as accounting, finance, leadership, marketing, management, and sports management. Currently, the AACSB has over 400 members with MBA programs accredited by the organization. In addition, approximately 1,200 more MBA programs are offered in the United States, many being accredited through the institutions' regional accrediting body (Gradschools.com,

2013). Many MBA programs not only strengthen the understanding of business but also further develop analytical and critical thinking skills. Today in the United States, over 100,000 MBA degrees are conferred annually, which comprises two-thirds of all graduate degrees in business (GMAC, 2012).

College Choice Factors of Prospective MBA Students

For this study, three recent prospective MBA student surveys, the GMAC 2012 Prospective MBA Student Survey, the AIGAC 2010 MBA Prospects Survey, and the Stamats Survey (Sevier, 2012), were reviewed to assist in the choice of relationship marketing categories and variables to represent price, product, place, and promotion. According to the surveys, over 87% of prospective MBA students use program websites as a source for gathering information. Moreover, these surveys indicated that the website is the most influence source in the selection process (AIGAC, 2010; GMAC, 2012).

The 2012 GMAC survey indicated that admission professionals and student ambassadors (current students) ranked highest in influential “school resources.” In addition, current students and alumni ranked as the strongest influencer in the “word of mouth” category, above friends/family, coworkers/peers, and college professors, among others (GMAC, 2012). Moreover, the 2012 Stamats MBA survey found that 63% of prospective students polled relied on current students and alumni, the highest ranked category (Sevier, 2012). In addition, when asked what the most influential factor was when choosing an MBA program, quality and reputation were the overwhelming choices. Finally, when prospective students were asked what they considered when judging quality and reputation, rank, program accreditation, quality of faculty, rigor of the program, and success of alumni were the top four factors (GMAC, 2012).

In addition to the relationship marketing factors, traditional marketing mix factors also were considered because of their importance. As stated previously, quality and reputation is the most influential factor when choosing an MBA program (GMAC, 2012). Two major components of the category are school rankings and interaction with faculty (GMAC, 2012). Because of this, the U.S. News and World Report rankings (“Top Business Schools,” 2013) and student-to-faculty ratio were used in this study. In addition to rankings, financial and career aspects were found to be influential factors for prospective MBA students (GMAC, 2012). Annual tuition and 6-month employment rates were the variables used in this study to satisfy those factors. The fourth influencing factor was categorized as program aspects (GMAC, 2012). See Figure 2.1 for a literature map.

Marketing Mix Theory

In 1960, Jerome McCarthy’s *Basic Marketing: A Managerial Approach* popularized the concept of the marketing mix theory as the four Ps: product, price, promotion, and place (Anderson & Taylor, 1995). Sixteen years later, Robert Bartels (as cited in Anderson & Taylor, 1995) said that McCarthy’s publication was “a landmark book because it lifted the mass of students and practitioners of marketing a step higher in the understanding of how marketing decisions are made” (p. 2). This basic marketing theory was further developed by researchers to include all organizations. In fact, Philip Kotler (1979) noted that all organizations, including colleges and universities, practice marketing and that marketing mix decisions are vital to their success as an organization. He wrote, “colleges, for example, search for prospects (students), develop products (courses), price them (tuition and fees), distribute them (announce time and place) and promote them (college catalogues)” (p. 41).

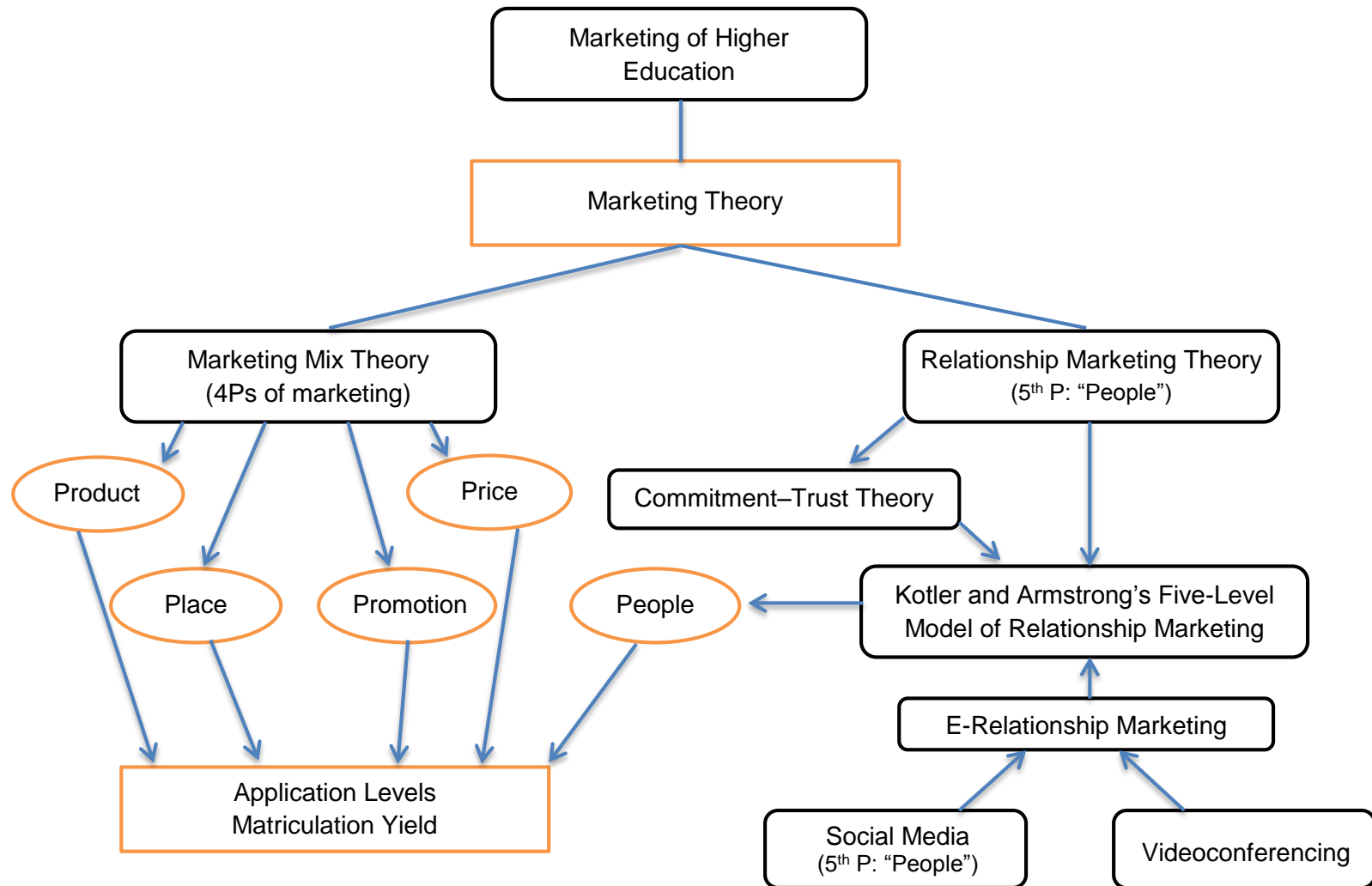


Figure 2.1. Literature map.

The American Marketing Association (2013, “Marketing mix”) described marketing mix as

the mix of controllable marketing variables that the firm uses to pursue the desired level of sales in the target market. The most common classification of these factors is the four-factor classification called the “Four Ps”—price, product, promotion, and place (or distribution). Optimization of the marketing mix is achieved by assigning the amount of the marketing budget to be spent on each element of the marketing mix so as to maximize the total contribution to the firm. Contribution may be measured in terms of sales or profits or in terms of any other organizational goals. (AMA, 2013).

The majority of marketing experts consider the marketing mix as a model for operational marketing planning (Gronroos, 1994). Although empirical evidence of successful marketing mix operations is limited, several studies have confirmed that marketing mix can be a trusted conceptual framework (Constantinides, 2006). The wide-reaching acceptance of marketing mix among marketers is the “result of their profound exposure to this concept during college years”(Constantinides, 2006, p. 408). Not only has the marketing mix had practical use, it also has played a major role in the evolution of marketing management philosophy (Gronroos, 1994).

Relationship Marketing Theory

In 1983, L. L. Berry used the term “relationship marketing” as part of a marketing literature review and argued that “researchers and businessmen have concentrated far too much on attracting consumers to products and services than retaining them” (Harker & Egan, 2006). In 1986, A. J. Magrath, in *When Marketing Services, 4Ps Are Not Enough*, developed a new marketing mix that included an additional “P,” making it the 5Ps of the marketing mix.

Magrath argued that when marketing a product or service, in addition to the original 4Ps, personnel also must be included. Berry and Magrath both argued that more than just the original 4Ps are needed to be a sustainable organization. When considering the recruitment of prospective MBA students, the people component of their proposed 5 Ps is very important because it focuses on the relationship between the school admission professional and the prospective student. It is not just about promoting the institution with what courses are offered, when they are offered, and at what particular price, but in addition, the prospective students trusting the admission professional on what is being sold to them (Harker & Egan, 2006; Magrath, 1986). Gronroos (1994) also added personnel in promoting the 5Ps of marketing, arguing that interaction between the one delivering the product and the consumer is very important and has a direct effect on the quality and perception of the quality. In addition, Moller (2006) argued that the original marketing mix “regards customers as passive and does not allow interaction and cannot capture relationships” (p. 441).

Commitment–Trust Theory

As relationship marketing theory continued to become more prominent in the business world into the 1990s, researchers wanted to find specific “keys” that made interactions between two parties successful. The difficulty with relationship marketing is that many variables affect the relationship outcomes and little research had been conducted on what characteristics are most important during an interaction (Morgan & Hunt, 1994). Morgan and Hunt conducted research and theorized that there are two key components to relationship marketing: commitment and trust. They defined a relationship commitment as “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” (p. 23). Morgan and Hunt contended that the

relationship commitment is central to relationship marketing because such relationships “are built on the foundation of mutual commitment” (p. 23). Trust is the second key that affects relationship marketing. They defined trust as “existing when one party has confidence in an exchange partner’s reliability and integrity” (p. 23). With strong evidence from their study, they concluded that commitment and trust are not just components of relationship marketing but are the central focus of success. As Covey (2006) stated in his book, *Speed of Trust*, “trust is not some soft, illusive quality that you either have or you don’t, rather, trust is a pragmatic, tangible, achievable asset that you can create faster than you probably think possible” (p. 266).

The most commonly cited benefit to the relationship marketing model is customer loyalty. In the context of higher education, customer loyalty can be viewed as the matriculation to the institution and retention thereafter (Vander Schee, 2010). As competition for students continues to intensify, relationship marketing initiatives will continue to be a way of achieving a competitive advantage (Bowden, 2011).

Marketing in Higher Education

In A. R. Krachenberg’s 1972 article titled “Bringing the Concept of Marketing to Higher Education,” he noted that the marketing of higher education institutions had remained largely unappreciated.

To many it is synonymous with selling or advertising. Even to those who accept marketing in its broader context, that the determination and meeting of customer needs and wants, it is almost always viewed as solely a business activity. To the contrary, it is a pervasive societal activity that every kind of organization is engaged in, and generally must engage in. (Krachenberg, 1972, pp. 369–370)

By 1979, Kotler had noted that all organizations, including colleges and universities, should be engaged in marketing or the organizations might suffer because of the lack of progression. In the mid-1980s, hiring marketing professionals became commonplace at many colleges and universities, and by the mid-1990s, “aggressive” marketing tactics were being used to recruit prospective students (McGrath, 2002).

Today, colleges and universities spend millions of dollars promoting the school to prospective students (Fiske, 2008; Mahoney, 2006). When institutional administrators were asked if marketing efforts are critically important to the school’s future: 86% of those surveyed found marketing important: 62% stated they “strongly agree” and an additional 24% said they “agree” (McGrath, 2002). When asked if they believed the institution was currently devoting enough resources to marketing, only 3% said they “strongly agree,” whereas 67% of the respondents stated they either “disagree” or “strongly disagree” (McGrath, 2002). In addition, Newman (2002) found nearly 88% of institutions advertised to prospective students and over 84% of those surveyed used target marketing.

Relationship Marketing in Higher Education

Although relationship marketing is commonly used and important in recruiting prospective college students, there is a paucity of research on the effectiveness of relationship marketing (Mahoney, 2006). Gyure and Arnold (2001) published an article discussing the development of a training model for admission recruiters based on the relationship marketing theory and Bowden (2011) discussed the importance of engaging students as customers using relationship marketing, yet these articles stressed the importance of relationship marketing and the effectiveness of said marketing was not discussed.

Two recent studies summarized the effectiveness of relationship marketing in higher education. A study conducted by Vander Schee (2010) implemented relationship marketing strategies at two private, liberal arts, church-related, 4-year institutions located in rural settings. One was in the Southwest and the other was in the Midwest. Admission counselors from both schools were trained on relationship benefits and how to effectively build relationships with prospective students. In addition, the admission counselors were equipped with extensive financial aid information along with important information from other student services departments. The outcomes of the year-long study were significant. “Student satisfaction with the admission process increased as the number of complaints regarding poor service decreased to almost none in one year” (Vander Schee, 2010, p. 141). In addition, student recruitment established positive increases as more prospective students made connections with the colleges.

At institution 1 the admission yield improved from a three-year average of 57.9% before the relationship marketing implementation to 70.2% the year after the change. At institution 2, the admission yield increased from the three-year average of 41.8% to 54.3% after the implementation of relationship marketing. (Vander Schee, 2010, p. 141)

A second study researched the relationship marketing theory as an adaptation of an exchange relationship typology and applied it to the recruitment of student-athletes (Judson, Aurand, & Karlovsky, 2007). If relationship marketing is used effectively, the recruiter and prospective student relationship should progress on a continuum. The four relationships on the continuum are: “Customers as Strangers,” moving to “Customers as Acquaintances,” then “Customers as Friends,” and finally “Customers as Partners” (Judson et al., 2007, p. 186).

The study found in interviews with 19 student-athletes that “strangers exhibited attraction to the university; acquaintances exhibited satisfaction; friends exhibited satisfaction and trust; and partners exhibited satisfaction, trust, and commitment” (Judson et al., 2007, p. 188). At any point on the exchange relationship continuum the student-athlete could experience negative interactions with the university that could lead to “former friend” status and disassociation. However, this is less likely the farther along the prospective student-athlete is on the continuum (Judson et al., 2007). Although the authors based this study on generic relationship marketing theory, one could argue the commitment–trust theory also is at work because to achieve Customers as Partners one must achieve commitment and trust.

Five-Level Model of Relationship Marketing

Kotler and Armstrong (1996) proposed a five-level relationship marketing model for building trust with prospective customers. These five progressive levels are described as basic, reactive, accountable, proactive, and partnership. Kotler and Armstrong argued that, at the basic level, there is little trust because of lack of communication. Trust and long-lasting relationships can be fully achieved when the customer and seller are at the partnership level. When first developed, the model was intended for traditional sales transactions; however, as the Internet became more popular, researchers (Bai, Hu & Jang, 2007; Gan, Sim, Tan & Tna, 2007; Han et al., 2005; Jang, Hu, & Bai, 2006; Kittle & Ciba, 2001; Klassen, 2002) have adjusted Kotler and Armstrong’s (1996) original model, not only for Internet relationship marketing, but also for college and university websites. At the basic level, communication between the school and prospective student does not exist. Prospective students can gather information regarding the school but cannot communicate with representatives from the school. At the reactive level, the schools feature general contact information, so prospective

students can initiate communication. The accountable level of the relationship demonstrates the school's intention and effort to create trust with prospective students. School websites will list personalized contact information of pertinent faculty and staff. At the proactive level, program websites continue to develop additional channels, such as social media and chat capabilities, that enhance the prospective student's trust in the institution. The partnership level strives for interactivity via the Internet by using technological advances such as videoconferencing and webinars (Bai et al., 2007; Han et al., 2005).

Five-Level Model Used in Higher Education

Kittle and Ciba (2001) were two of the first researchers to convert Kotler and Armstrong's (1996) five-level model of relationship marketing into a website-compatible model. By utilizing a longitudinal study, their research goal was to assess the undergraduate admission websites in 1997 and then again in 1999 to track relationship marketing levels. Based on their website variables of applications, faculty, and tours, the average scores of the relationship marketing levels rose over the three years as expected. However, the researchers were surprised by the magnitude of the improvement. They concluded, "The websites of colleges and universities are evolving to the level of participatory and convenient sites with many institutions beginning to take full advantage of the interactive potential of the World Wide Web" (Kittle & Ciba, 2001, p. 34).

In 2002, Klassen used the five-level model of relationship marketing and the same three variables (applications, faculty, and tours); however, he furthered the research by comparing top-ranked and lower-ranked colleges and universities. Although the Internet is considered to be the "great equalizer" in the business world, websites and web marketing campaigns can be very expensive. Klassen (2002) found a statistically significant difference

in the group mean score of the top-tier and lower-tier universities. Lower-tier schools may not have the resources to develop and promote a functional website for relationship marketing, and therefore, the Internet is not actually an equalizer (Klassen, 2002).

Hu, Han, Jang, and Bai (2005) focused their five-level model of relationship marketing study on both undergraduate and graduate hospitality and tourism program websites. However, this research expanded the website variables to include application, faculty and current students, program information, and on-campus facilities. Once again, much like in Klassen's (2002) study, larger programs tended to apply more relationship marketing features to their websites compared to smaller programs. This study also found that graduate programs achieved significantly higher overall relationship marketing levels compared to undergraduate programs.

Kotler and Armstrong's Five-Level Model Used in Areas Outside of Higher Education

Although initially applied in higher education, the five-level model of relationship marketing has been the focus of research for hotel websites, too. Jang et al. (2006) modified the five-level model into three categories: basic, accountable, and partnership. They focused their research on the correlation between e-relationship marketing levels and hotel financial performance. They found a significant relationship between the website levels and financial performance.

Relationship marketing is critical at the corporate level. This research analyzed the online customer relationships and their links to financial performance of hotel companies. Relationship marketing, however, should not be considered just as a sales promotion or tactical activity but rather a strategic and fundamental business philosophy. (Jang et al., 2006, p. 248)

Using the five-level model as their framework, Bai et al. (2007) researched hotel companies' utilization of e-relationship marketing levels in website features. Their results indicate that hotel websites were well maintained at the basic levels, but many of the websites did not show well-established higher levels of sophistication (Bai et al., 2007). However, they did find larger companies appeared to be more concerned with implementing higher levels of relationship marketing than were smaller companies (Bai et al., 2007). A similar hotel study based on a four-level adaption yielded comparable results (Gan et al., 2007), and the researchers commented,

whether hotels are able to remain competitive through the Internet will depend on how well the hotels can perform in the use of the World Wide Web as a tool, their commitment to online relationship marketing, how well they are integrating them with their business strategy and also how fast they are keeping up with technological advancements. (p. 16)

As shown in the relationship marketing studies (Bai et al., 2007; Gan et al., 2007; Han et al., 2005; Jang et al., 2006; Kittle & Ciba, 2001; Klassen, 2002), use of the five-level model of assessing relationship marketing on websites is a common research practice. By using this model, a researcher can accurately assess the website and quantify the results. The relationship marketing on university and hotel websites has not reached full potential; however, the authors all stated that website relationship marketing is needed in order to enhance connectivity to prospective customers.

E-Relationship Marketing

The Internet, originally known as the “international electronic network,” was created in 1968 by the Advanced Research Projects Agency of the Department of Defense (Paul,

1996). It was started as a network for connecting various university computer centers and, by 1991, over 3,000 higher education institutions were connected to the Internet (Paul, 1996). The World Wide Web was established in 1993, and it is the most common way to access the Internet (Paul, 1996). Nielsen Online (2012) estimated that over 78% of the U.S. population used the Internet in 2012 compared to 44% of the population in 2000.

Since the mid-1990s, the Internet has been evolving and presenting new opportunities and challenges to establishing and managing online customer relationships (Geissler, 2001). Some experts believe the Internet is more conducive to relationship marketing than is any other targeted marketing, such as direct mail (Geissler, 2001). Electronic customer relationship management is one of the latest techniques organizations are using to amplify marketing capabilities (Scullin, Fjermestad, & Romano, 2004). As Cate Riegner (2007) stated, “the Internet stands apart from other media in enabling its ‘users’ to interact. From this perspective, the Internet will always be, at its core, a tool for interpersonal communication” (p. 436). In addition, Sheth (2002) stated that two factors are likely to redefine relationship marketing: the impact of information technology and selected and targeted relationship marketing to meet a company’s goals. As the Internet continues to be more accessible to people around the world and as software development in relationship marketing continues to evolve, the organizational website will continue to be one of the most important places to connect with prospective customers (Sheth, 2002).

Social Media in Higher Education

Due to the extremely competitive nature of college recruiting, most admission offices around the nation continually try to evolve, and the use of social networking sites by admission representatives has become increasingly popular (Long, 2010). Whether it is

Facebook, Twitter, or YouTube, admission offices are utilizing multiple streams in attempts to connect with prospective students (Long, 2010). According to Long's (2010) survey, 62% of college and university admission offices were planning to dedicate more resources to social media in 2010 compared to 2009. The same study found that 66% of admission offices were using Facebook on a regular basis and 41% were using Twitter. Furthermore, NAGAP's 2012 social media report stated that 80% of graduate admission departments were using social media in recruiting efforts. The majority of college and university undergraduate and graduate admission offices are using social media networks (NAGAP, 2012).

Applications of social media in recruitment

Facebook can be utilized in three general ways to connect with prospective students: by creation of an institution fan page, the creation of a group(s), and/or the creation of an individual account for admission counselors (Feng, 2011). The institutional fan page can be a platform for prospective students to gather information about the college; get up-to-date news regarding the college; post admission events, videos, and pictures; and find out about upcoming events happening on campus (Feng, 2011). However, in order to make the fan page most effective, the admission office must promote it to prospective students and the students then have to "like" the page. Once a student likes the college's fan page, the student will have automated updates on their personal account when the college posts information on the site (Feng, 2011).

Shawn Abbott, Vice President of Admissions at NYU, when asked about the use of social media said,

NYU's office of admissions has, in fact, increased its use of social media, primarily using Facebook as a vehicle to communicate with both prospective and admitted student. Admitted students, for example, make heavy use of the Class of 2015 profile on Facebook, which serves as a forum for students to learn more about admitted student events, housing, and life at NYU. (Feng, 2011, para. 7)

According to the Cappex survey (Long, 2010), 30% of admission officers said the biggest benefit to using Facebook was the "ability to connect with students where they spend their time online" (p. 7). An additional 20% of the respondents said that "engagement and connection with the school, current students and faculty were key benefits" (Long, 2010, p. 7).

Effectiveness of Social Media in Recruitment

Lindbeck and Fodrey (2009) conducted a study of admission directors to measure their use of technology and the perceived return on investment (ROI). Then, approximately one year later, they followed up with the prospective students' perception of the use of technology during the recruiting process. Their first study concluded that all of the responding institutions used technology and that the highest use of technology was with more established forms such as websites, e-mail, and online recruitment materials. Of the responding institutions, 69% used some form of social media; however and only 36% believed it had a high ROI. The student perception survey somewhat validated the admission directors' concerns regarding ROI. When looking specifically at social networking sites, 32.3% of the students surveyed used it during the recruitment process and it was perceived as "somewhat useful." In contrast, approximately 90% used the school website, and the students said it was "very useful" in the recruiting process (Lindbeck & Fodrey, 2009, 2010).

Surveys conducted by Parrot and Tipton (2010), Noel-Levitz and NAGAP (2012), and the College Board (Hesel & Williams, 2009) led to many of the same conclusions. The Parrot and Tipton survey, conducted in October 2009, found that 81% of college bound high school students thought college and that university websites were “one of the most important ways to gather information, while only 18% stated that social networking sites, such as Facebook, were one of the most important” (p. 52). However, in 2009 there was a 6% boost from the 2008 survey, showing the importance among prospective students had improved. A recent Noel-Levitz and NAGAP (2012) survey found that 33% of college applicants said they searched for schools on social networking sites. In addition, the College Board studentPOLL (Hesel & Williams, 2009) found that only 18% of college bound students gathered information or impressions about the institution using social media (Hesel & Williams, 2009).

Regardless of the survey, an extremely high percentage of college-bound high school students use Facebook and other forms of social media. However, a much smaller percentage of students actually use Facebook as an information source during the college choice process. The social media usage percentages have been slowly increasing since the initial surveys in 2007; however, admission offices need to be aware that the largest percentage of prospective students continue to prefer the institution’s website as the primary source for information (NAGAP, 2012).

Customized Social Media Site for Recruitment

Xavier University (OH) developed its own customized social networking site, instead of utilizing Facebook or other social networking sites. The overall strategy of the site was to better engage accepted students through interaction with representatives from the college and

peer-to-peer marketing (Hayes, Ruschman, & Walker, 2009). The specific strategic goals were to “enhance yield statistics; provide online business processes (financial aid, online forms); heighten interest and better the relationship with the institution; and influence perceptions of cost, academics, value, and fun” (Hayes et al., 2009, p. 117). Since implementing the site in 2005, new freshman enrollment has increased every year. Moreover, in 2009, 47.3% of accepted students and 99.8% of students who paid a seat deposit used the site. (Hayes et al., 2009).

Elizabeth Farrel (2007) stated, “The parents are more involved than ever before in their students’ college choices, so it is worthwhile to send materials that, even if addressed to the children will catch mom or dad’s eye” (p. 5). Hayes et al. (2009) also elaborated on the same point,

The university is quick to point out that while the “Road to Xavier” has been a success on every level, it is but one tool in a marketing approach. Without complimentary components like personalized relationships with the office of admissions, a strong financial aid modeling process, compelling print pieces, and engaging on-campus visit opportunities, an admitted student site cannot pull the load alone. All of the pieces must work together to deliver a successful integrated program. (p. 120)

As admission offices continue to use social networking sites, admission directors need to define what goals they want to accomplish in the recruitment process (Bishop, 2011). Some admission officers believe they will be at a competitive disadvantage and use Facebook and Twitter because everyone else is using it (Hayes et al., 2009). This way of thinking is not an effective return on investment for either the university’s resources or the

prospective students and their families (Hayes et al., 2009). In addition, admission officers should never approach the use of technology as a replacement for traditional recruitment tools (Bishop, 2011).

Use of Social Media to Strengthen Trust Between Admission Counselor and Student

Although most studies show one third or less of prospective students are using social media to gather information about the college, a survey conducted by Noel-Levitz and NAGAP in 2012 found that 67% of students deemed it appropriate for admission counselors they had worked with to connect with them through social media (Bishop, 2011). This is a significant increase compared to students who said they use social media to gather information. To further strengthen the argument, a 2012 Stamats survey found that there is a significant increase in the use of social media being “acceptable communication methods after applying” compared to “acceptable communications before submitting the application” (Bishop, 2011). However, according to Lindbeck and Fodrey (2010), only 17.4% of prospective students experienced admission counselors using social media networks to build a relationship with the student. Colleges and universities have been focusing on social media as another way for prospective students to gather information about the institution; but the majority of students do not utilize it in that manner. In fact, a recent benchmarking study conducted by Long (2010) found that admission offices perceived 37% of prospective students use Facebook during the college search process “to get a feel for a college,” whereas only 8% believed students were using Facebook to communicate with admission counselors. The majority of college bound students are not using social media to gather information. Instead, admission counselors should focus on connecting with the prospective student during and after the application process (Bishop, 2011).

Videoconferencing

Face-to-face meetings have been known as the most effective way of communicating in business (Daft & Lengel, 1984). Key elements of face-to-face interactions are the “capacity to transmit equivocal information, produce immediate feedback and build a personal and authentic atmosphere” (Denstadli, Gripsrud, Hjorthol, & Julsrud, 2012, p. 1). These elements are considered key components in business and have proven difficult to replace; however, recent technological advances have made videoconferencing a simple and convenient way to conduct a “face-to-face” meeting from different locations (Julsrud, Hjorthol & Denstadli, 2012).

Videoconferencing is perhaps the most technically advanced alternative for communication over distance. The term is used interchangeably with teleconferences in relation to meeting in which two or more participants communicate in real time through the use of live pictures and sound. (Julsrud et al., 2012, p. 396)

Baldi and Ofek (2000) described videoconferencing as an important application because it enables people from around the world to connect face-to-face when distance separates the participants. The challenge of traveling great distances, along with cost and time, make videoconferencing an outstanding option. Moreover, Lowden and Hostetter (2011) found that a meeting conducted via videoconference was perceived to provide adequate levels of attendee satisfaction as an alternative to a more traditional face-to-face meeting.

Because of Internet-based computer software, such as Skype and WebEx, videoconferencing is possible on most computers, laptops, and mobile devices that have an Internet connection (Julsrud et al., 2012). Mobile devices have made videoconferencing

even more convenient and accessible, especially with use of 3G, and now the faster 4G, connections. In addition, many software systems now allow for multiparty meetings (Julsrud et al., 2012).

Videoconferencing in Higher Education Recruitment

Skype, one of the most popular free videoconferencing software applications, was launched in 2003 and has more the 600 million users worldwide (Dellenger, 2013). Even though the technology and access to videoconferencing becomes more developed every year, some institutional admission offices have been reluctant to use it. Carrie Marcinkevage, MBA Director of Admission at Penn State's College of Business, discussed the lack of adaptation to videoconferencing in a 2008 interview and stated, "It's literally a matter of speaking their [prospective students'] language. I don't think it's the students. It's the unfamiliarity of the staff [who don't] know how to use it" (Rodriguez, 2008, p. 1). David Hawkins, Director of Public Policy at the National Association for College Admission Counseling, stated, "Looking ahead, colleges will try to pursue the kind of technology that will create a personal approach to the admission process" (Rodriguez, 2008, p. 1). Furthermore, Martha Allmand, Director of Admission at Wake Forest University, said of their videoconferencing with prospective students, "We decided this would be a wonderful alternative to the face-to-face interview. We have to stay attuned to how students receive information and how they communicate" (Rodriguez, 2008, p. 2).

Ross Dellenger (2013) wrote about the use of Skype by the University of Missouri's athletic department. He stated,

Over the past three years, it's blossomed into a handy workplace technology for coaches. Last spring, it was reported that Alabama football coach Nick Saban had a

90-minute Skype session with a prospective quarterback. Former Penn State coach Joe Paterno, then 84 years old, was Skyping with football recruits two years ago.

(Dellenger, 2013, p. 1)

Many of the prospective students that admission offices are trying to recruit are comfortable with videoconferencing and, based on the recent Dellenger (2013) article, coaches and recruiters also are showing their ability to adapt to the technology. Regarding videoconferencing as a tool for higher educational use, Moody and Wieland (2010) stated,

Although not complete, the history of videoconferencing exemplifies just how far the technology has come since its debut. Breaking through nearly every obstacle, videoconferencing will likely continue to develop until it becomes a fundamental part of organizational and personal life. As the technology endures additional adaptations, it will indubitably become more inexpensive and ultimately a foundational resource tool. (p. 19)

Videoconferencing is emerging as an important business communication tool, and services such as Skype, Google Chat, and FaceTime have made virtual face-to-face meeting even more convenient. As prospective MBA students continue to rely on program websites for the majority of their information and spend less time on campus, admission offices should consider the use of videoconferencing when recruiting students (GMAC, 2012).

Summary

The marketing mix theory (product, price, promotion, and place) dates back to the 1960s; however, marketing researchers such as Berry (1983), Magrath (1986), and Morgan and Hunt (1994) have found that much more is needed to effectively market to prospective customers. A strong relationship must be built between the parties in order to develop trust

and loyalty. The researchers argued that if trust is the foundation of the relationship, commitment will soon follow. In higher education, there are various reasons students choose a school. Most surveys have reviewed traditional marketing mix and relationship marketing influencers. However, little research has been conducted on the predictive nature of these variables in the recruiting process. Researchers have been able to use Kotler and Armstrong's (1996) five-level model to quantify the role and impact of relationship marketing inside and outside of higher education.

CHAPTER 3. METHODOLOGY

The purpose of this study was twofold. National prospective MBA student surveys (AIGAC, 2010; GMAC, 2012; Sevier, 2012) indicated that over 87% of prospective MBA students utilized program websites as their top source for program information and that school admission professionals, current students, faculty, and alumni are strongly influential in the recruiting process. First, this study examined whether MBA programs are using these key personnel on their websites in the recruiting process. Using Kotler and Armstrong's (1996) five-level relationship marketing model (Han et al., 2005; Kittle & Ciba, 2001; Klassen, 2002) and the four engagement features (admission professionals, current students, faculty, and alumni), the researcher developed a data collection form to assess MBA program relationship marketing. An online content analysis was used to collect relationship marketing data. The four engagement areas were based on national prospective MBA student survey results (GMAC, 2012; Sevier, 2012).

Second, this study examined the traditional marketing mix theory (price, product, promotion, and place) in combination with the theory of relationship marketing (people), to predict MBA program matriculation yield and application levels. By revealing which independent variables are strong predictors of matriculation yield and application levels, MBA administrators will be equipped with a better understanding of where to focus resources when attempting to enhance MBA student enrollment.

This chapter explains the approach for the research design of the study, including the research questions, methodology, method of data collection, instrument, variables, methods of data analysis, and validity.

Methodology

This study used an objectivist epistemology with a postpositivist theoretical perspective. According to Crotty (1998), objectivism asserts that meaning will be discovered based on observed events instead of being imposed or constructed. Postpositivism states that absolute truth is unattainable when studying human beings and studies should focus on which of the causes most likely determine the outcomes (Crotty, 1998). In addition, postpositivism acknowledges the near impossible unbiased nature of the researcher and what is being studied (Creswell, 2009). It should be understood that the researcher constructs the questions to be answered, selects participants, and decides on a method of data collection and analysis. The theoretical framework and previous research on the subject provide the guidance; however, the researcher has biases and may interpret conclusions differently than other researchers (Creswell, 2009).

Research Questions

The following research questions were answered in this study. The first two research questions were addressed using descriptive statistics, research question 3 used correlation results to measure relationship, and research questions 4 and 5 were answered using a multiple regression analysis.

1. What are the characteristics of the AACSB MBA programs randomly selected for this study?
2. What are the relationship marketing levels on MBA program websites?
3. Is there a correlation between the marketing variables (price, product, place, promotion, and people) among MBA programs?

4. To what extent do traditional marketing mix variables and relationship marketing levels predict the number of applications MBA programs receive?
5. To what extent do traditional marketing mix variables and relationship marketing levels predict MBA program matriculation yield?

Research Design

Using Kotler and Armstrong's (1996) five-level relationship marketing model, the researcher used a quantitative content analysis of MBA program websites. Specifically, the relationship marketing features of admission professionals, current students, faculty, and alumni were the focus of the analysis. As national prospective MBA student surveys have shown, these four categories of people are very influential in the recruiting progress (AIGAC, 2010; GMAC, 2012). In addition, the marketing mix variable data were gathered from institutional data on program websites and literature such as that published by the U.S. News and World Report rankings ("Top Business Schools," 2013) and the Princeton Review (2012).

Kotler and Armstrong (1996) proposed a five-level relationship marketing model for building trust with prospective customers. These five progressive levels are described as basic, reactive, accountable, proactive, and partnership. Kotler and Armstrong argued that, at the basic level, there is little to no trust because of lack of communications. Trust and long-lasting relationships can be fully achieved when the two parties are at the partnership level. When first developed, the model was intended for traditional sales transactions; however, as the Internet has become more popular, researchers have not only adjusted Kotler and Armstrong's (1996) original model to reflect Internet relationship marketing but also have tailored it to college and university websites (Bai et al., 2007; Han et al., 2005).

Five-Level Relationship Marketing Model

Basic level. Communication information for prospective students, such as e-mail addresses and telephone numbers, via the program website does not exist. Prospective students can gather information regarding the school from the website; however, they cannot communicate with representatives from the school. Currently, this level is extremely rare among admission offices but was much more common when institutions first started using the Internet to recruit prospective students in the mid-1990s (Bai et al., 2007; Han et al., 2005).

Reactive level. This level features general contact information, so prospective students can initiate communication with the school; however, the prospective student is not given easy access through the program site to contact faculty or staff. As an example, the program will list a general telephone number but not a direct personalized contact, and a general e-mail address (admit@abcschool.edu) will be listed but not an actual personalized e-mail address (Bai et al., 2007; Han et al., 2005).

Accountable level. This level starts to demonstrate a program's initial intention and effort to create trust with prospective students. School websites will list personalized contact information of pertinent faculty and staff. In addition, faculty and staff professional background information, along with an accompanying photograph, are common at this level (Bai et al., 2007; Han et al., 2005).

Proactive level. At this level, a program's website continues to develop additional channels of communication, such as static videos, social media networking sites, and online chat capabilities, that can enhance ways the prospective student can build relationships and trust in the institution. Through the admissions office, online chats may be offered at specific

dates and times for prospective students to learn more about the institution. In addition, the program site will promote social networking sites for prospective students to “follow” or “like” in order to gain a better understanding of the institution, faculty, current students, and staff (Bai et al., 2007; Han et al., 2005).

Partnership level. At this level, a program strives for interactivity via the Internet by using technological advances such as videoconferencing and webinars with video/chat capabilities. The prospective students and school officials can have virtual “face-to-face” communication. Researchers who have used the five-level model as an assessment tool for relationship marketing via the Internet have argued that the partnership level gives the “seller” the best and most effective way of building trust with the “buyer” (Bai et al., 2007; Han et al., 2005).

Previous studies. In previous university website studies using versions of the five-level relationship marketing model, researchers chose admissions’ website features to be assessed by the model. For instance, Kittle and Ciba (2001) used applications, faculty, and tours to assess relationship marketing on program websites. In addition, Klassen (2002) used the same categories in his study to compare top-tier and lower-tier undergraduate institutions. However, in neither study was there a detailed and grounded explanation of why those categories were chosen. Hu et al. (2005) expanded the study to include admission and financial aid, faculty and current students, program information, and on-campus facilities. Their justification for the chosen categories was explained within the literature. The present study was grounded in the national surveys of prospective MBA students conducted by the GMAC (2012), the IAGAC (2010), and Stamats (Sevier, 2012). In addition, the descriptions

of the five levels of the relationship marketing model were closely guided by the Hu et al. (2005) study.

Population and Sample

The population of interest for this study was all U.S. member institutions of the AACSB that offer the MBA. Currently, the AACSB has 672 member institutions from 50 countries. Institutions from the United States represent approximately 425 of the total members with MBA programs. Of those members, 120 programs were randomly sampled. To ensure that the percentage of nationally ranked schools was proportionate to the overall population, stratified random sampling was used. Stratified random sampling is a sampling method that divides the population into smaller groups known as strata (Urdan, 2010). A random sample from each stratum is taken in a proportionate number to the size when compared to the population (Urdan, 2010). These subsets of the strata are then combined to form a random sample. The overall sample of 120 consisted of 31 top-100-ranked programs and 89 unranked programs based on the 2013 U.S. and World Report MBA rankings (“Top Business Schools,” 2013).

Data Collection Method

This study used content analysis to assess the relationship levels of the MBA program websites. Using content analysis is a common and useful method of assessing websites (Neuendorf, 2002). This quantitative data collection method, although not as commonplace as the survey method, was complementary to this study.

Bernard Berelson (1952, p. 18) defined content analysis as “a research technique for the objective, systematic, and quantitative description of the manifest content of communication.” According to Kris Krippendorff (1980), content analysis is “a research

technique for making replicable and valid inferences from text” (p. 21). Although these two definitions from experts in the field give solid insight, Kim Neuendorf’s (2002) definition was used for this study. She stated that content analysis is a “summarizing, quantitative analysis of messages that relies on the scientific method and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented” (p. 10). The goal of a quantitative content analysis is to “produce counts of key categories and measurements of the amounts of other variables. . . . A content analysis has as its goal a numerically based summary of a chosen message set” (Neuendorf, 2002, p. 14).

Descriptive and Predictive Content Analysis

Descriptive statistics are the most common content analysis output. As with any descriptive statistic, it is effective in summarizing the sample on which the content analysis is focusing. For this study, descriptive statistics were used to outline the institutional characteristics and relationship marketing engagement levels of the 120 MBA programs sampled.

In addition, predictive statistics are commonly used in content analysis studies. According to Neuendorf (2002), predictive statistics in content analysis has a primary goal of predicting “some outcome of effect of the messages under examination. By measuring key characteristics of messages, the researcher aims to predict receiver or audience responses to the messages” (p. 55). For this study, a multiple regression was used on both the relationship marketing and traditional marketing independent variables to predict matriculation yield.

Instrument

A data collection form based on a website version of Kotler and Armstrong’s (1996) five-level model of relationship marketing was used as the study’s data collection instrument

(Figure 3.1). In addition, prior to reviewing any of the websites, descriptions within the five levels of the model was guided by previous research based on the website models and the prospective MBA student surveys (AIGAC, 2010, GMAC, 2012; Han et al., 2005; Kittle & Ciba, 2001; Klassen, 2002). The researcher assessed all 120 MBA program websites. It should be noted that the researcher attempted to train another individual to assess the websites; however, upon reviewing the results, the researcher found glaring omissions and incorrect assessments. The researcher had been studying the five-level model for over two years and is confident in the website assessment results. Based on the observed results, each

Data Collection Form			
College Name:		Date:	
Location:		Web address:	
Level of feature		Student Profiles	Alumni Profiles
Basic	1	General student info	General alumni information
Reactive	2	Personal contact information	Personal contact information
Accountable	3	Background/Photo	Background/Photo
Proactive	4	Chat capabilities/social media	Chat capabilities/social media
Partnership	5	Videoconferencing	Videoconferencing
		Student Profiles:	Alumni Profiles:
		Admission Professional	Faculty Profiles
		General admission information	General faculty information
		Personal contact information	Faculty directory
		Background/Photo	Basic background info
		Chat capabilities/social media	Vitae/Photo
		Videoconferencing	Research interest/taught
		Admission Professionals:	Faculty Profiles:

Figure 3.1. Data collection form.

category was given a relationship marketing assessment based on the five-level model descriptions: (1) basic, (2) reactive, (3) accountable, (4) proactive, (5) partnership (Kotler & Armstrong, 1996). An assessment score of 1 indicates a basic relationship marketing level. For example, if the website had only general admission information and nothing else, that website would receive a score of 1 in its admission professional column. If the program website gave individual admission staff contact information, then it was given a score of 2. If the website highlighted admission professional biographical information and/or a picture of the staff member, the website would receive a score of 3. If the website featured social media and/or online chat capabilities, it received a score of 4, and if a prospective student was given the opportunity to videoconference with an admission professional, the website was given the highest score of 5 for that particular column.

Variables

Dependent Variables

For this study, matriculation yield and application numbers were the two dependent variables used. Data for these variables are available in the 2013 edition of *The Best 296 Business Schools* (The Princeton Review 2012). The guidebook lists three major admission data from the 2012 academic year: the number of applications received, percentage of applicants accepted, and percentage of acceptees attending. The percentage of acceptees attending (matriculation yield) and the number of applications were used as the dependent variables in this study.

Independent Variables

The independent variables were placed into two categories: relationship marketing variables and marketing mix variables. The relationship marketing variables were those

assessed from the data in the data collection form with each relationship category (admission professionals, current students, faculty, alumni) given a score of 1 through 5.

Data for the traditional marketing mix variables were accessed through the 2013 edition of the U.S. News and World Report's Graduate School Rankings ("Top Business Schools," 2013), the 2013 edition of *The Best 296 Business Schools* (The Princeton Review, 2012), and the MBA programs' websites. The price variable data reflected the cost of tuition. For the product variable, a weighted average based on the importance prospective MBA students placed on the variables was used. The items within the product variable were ranked in order of importance: (a) rankings, (b) acceptance rate, (c) employment rate, and (d) student-to-faculty ratio. The place variable values were calculated by (a) the number of locations each MBA program offered as a delivery method, (b) online offerings, and (c) availability of residential living. Finally, the "promotion" variable data reflected the operating budget per student. See Figure 3.2.

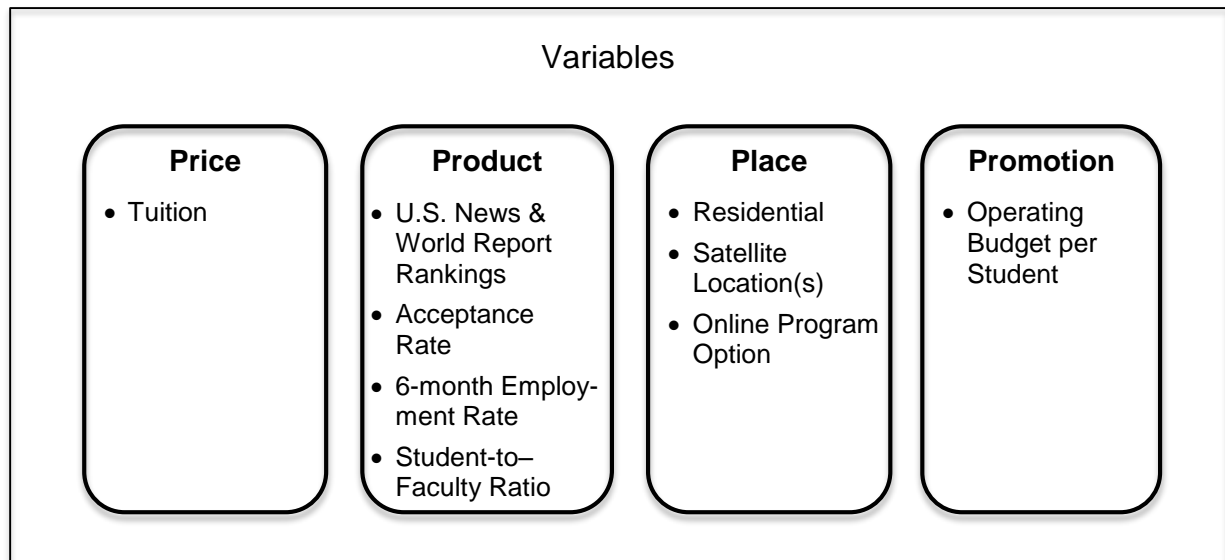


Figure 3.2. Traditional marketing mix variables.

Data Analysis

The content analysis data were collected and stored in Excel software. Once completed, the results were imported into IBM SPSS v22.0 Statistics software. The methods of analysis that were used to answer each research question are discussed in this section.

Descriptive Statistics

Descriptive statistics were used to answer research questions 1 and 2, examining institutional characteristics and relationship marketing levels of the MBA programs that were randomly selected for this study. Descriptive statistics describe the characteristics of a sample or population and are meant to describe the characteristics of the data collected (Urdan, 2010). The sampled characteristics were then compared to the MBA program population to determine if they were representative of all AACSB-member MBA schools. Furthermore, descriptive statistics were utilized in observing how the selected MBA programs used relationship marketing on their websites and at what level the features were on the five-level model scale.

Correlation

Bivariate Pearson correlation was used to determine relationships, if any, among the five marketing independent variables (price, product, place, promotion, people). All correlation assumptions were checked and met before conducting the analysis. Pearson correlation variables must be measured on an interval scale and be continuous variables. All of the variables were or were converted to continuous variables and, therefore, were appropriate for the Pearson correlation analysis.

The strength and direction of the correlation determines if one variable is associated with another variable (Urdan, 2010). If the correlation is positive, one assumes that as one

variable increases the other variable increases and if one variable decreases the other variable also decreases. Also, if the correlation is negative, one may assume that as one variable increases the other variable decreases. A perfect positive correlation is 1.00 and a perfect negative correlation is -1.00 . Generally in the social sciences, most correlation coefficients fall between $-.70$ and $.70$ (Urdan, 2010). Many experts suggest that correlation coefficients from 0 to $\pm .20$ indicate a weak relationship. Those between $\pm .21$ and $\pm .50$ suggest a moderate relationship, and anything larger than $\pm .50$ represents a strong relationship (Urdan, 2010).

Regression

A multiple regression analysis was used to examine the predictors of MBA admission matriculation yield and number of applications in order to answer research questions 4 and 5. A multiple regression analysis is a statistical technique that allows a researcher to assess the relationship between one dependent variable and several independent variables (Tabachnick & Fidell, 2013).

The terms *regression* and *correlation* are used more or less interchangeably . . . although the term *regression* is often used when the intent of the relationship is prediction and the term *correlation* is used when the intent is simply to assess the relationship between the dependent variable and independent variables. (Tabachnick & Fidell, 2013, p. 117)

As a first step in the process, the researcher determines how strong the relationship is between the dependent and independent variables and then assesses the importance of each of the independent variables to the relationship (Tabachnick & Fidell, 2013).

Based on the literature, five MBA matriculation predictors were entered into the model: price, product, place, promotion, and people. Annual program tuition represented price. U.S. News and World Report rankings (“Top Business Schools,” 2013), acceptance rates, employment rates, and student-to-faculty ratios were used for the product. Based on prospective student importance (GMAC, 2012), a weighted average was implemented. For place, each institution was given a score of 0, 1, 2, or 3 based on the availability of residential living, satellite locations, and online offerings. The operating budget per student represented promotion. Although marketing budgets would be the most accurate data for promotion, obtaining such data is difficult. The final variable was described as people and represents the relationship marketing aspect of the study. The five-level model of relationship marketing results were used to represent people. Based on prospective student importance (GMAC, 2012), a weighted average was implemented. Students found admission professionals to be the most influential in the decision-making process, so that score received the most weight. It was followed by current students and then alumni, and faculty received the least weight based on importance to the prospective student. The categories and associated independent variables are shown in Table 3.1.

Regression analysis can be used with either continuous or dichotomous variables (Tabachnick & Fidell, 2013). For this study, the independent variables were continuous and dichotomous; however, because the product category had four variables with different continuous data, it was recoded and weight was placed on the factors most important to prospective students as measured in the national MBA surveys. In addition, the dichotomous variables within the place category were recoded with a range of 1 through 3.

Table 3.1.

Independent Variables

Characteristic	Variable	Coding
Relationship marketing		
People	Admission professional	1 = basic 2 = reactive 3 =accountable 4 = proactive 5 = partnership
	Current students	1 = basic 2 = reactive 3 =accountable 4 = proactive 5 = partnership
	Faculty	1 = basic 2 = reactive 3 =accountable 4 = proactive 5 = partnership
	Alumni	1 = basic 2 = reactive 3 =accountable 4 = proactive 5 = partnership
Traditional marketing mix		
Price	Tuition	Continuous
Product	Rankings	Continuous
	Acceptance rate	Continuous
	Student/faculty ratio	Continuous
	Employment rate	Continuous
Place	Residential	Dichotomous
	Satellite location	Dichotomous
	Online degree	Dichotomous
Promotion	Operating budget/student	Continuous

It is also important to state that a regression analysis shows relationships among the variables but does not imply that the relationships are causal (Tabachnick & Fidell, 2013). A strong relationship between variables could come from other unmeasured sources. “One can make an airtight case for causal relationship among variables only by showing that manipulation of some of them is followed inexorably by change in others when all other variables are controlled” (Tabachnick & Fidell, 2013, p. 122).

Validity

Validity can simply refer to the “approximate truth of an inference” (Murnane & Willett, 2010, p. 33). An investigator who says that findings in the study are valid is making a

judgment about the extent to which relevant evidence supports that inference as being true or correct. Usually, that evidence comes from both empirical findings and the consistency of these finding with other sources of knowledge, including past findings and theories. (Murnane & Willett, 2010, p. 33)

In this section, four types of validity are discussed as they related to this study. Statistical conclusion validity refers to the validity of inferences regarding the correlation between the independent variables and the dependent variable. Internal validity addresses whether the observed covariation between the independent variables and the dependent variable shows a causal relationship from one to the other as those variables were measured (Murnane & Willett, 2010). Construct validity refers to the validity of inferences about the “higher order constructs that represent sampling particulars” (Murnane & Willett, 2010, p. 38). Finally, external validity addresses “inferences about whether the cause–effect

relationship holds over variation in persons, settings, treatment variables, and measurement variables” (Murnane & Willett, 2010, p. 38).

Statistical Conclusion Validity

Statistical conclusion validity is important because it is concerned with whether the presumed cause and effect is statistically and practically significant. An investigator can incorrectly conclude cause and effect and over- or underestimate the magnitude of the covariation. To ensure statistical conclusion validity for this study, the researcher was cognizant of statistical power by using a sufficient sample size and had reliable measures by using more than one coder and training that coder. Moreover, the scale of the measures was not too restrictive, the sample was homogenous for general characteristics, and effect size estimation was accurate (Murnane & Willett, 2010).

Internal Validity

Consideration of internal validity is important because it considers whether the independent variables actually made a significant difference on the dependent variable. The researcher was aware of clarity about which variable occurred first and events occurring concurrently with the variables and was aware of ensuring that the instrument did not change during the data collection process (Murnane & Willett, 2010).

Construct Validity

Construct validity is important for three main reasons. First, constructs are the major means for connecting the operations of the study to the theory and the use of correct language of the results. In addition, construct labels often can hold economic, social, and political implications. Finally, it is the “creation and defense of basic constructs is a fundamental task of all sciences” (Murnane & Willett, 2010, p. 65). The constructs of the five-level model of

relationship marketing and the four features used in the model were grounded through the relationship marketing research and national prospective MBA student surveys presented in Chapter 2.

External Validity

External validity is needed because it is concerned with where the outcomes can be generalized (Murnane & Willett, 2010). For this study, 120 MBA programs were assessed; however, the results cannot be generalized to all MBA programs, only those that are AACSB-credited institutions.

Delimitations and Limitations

This study attempted to determine the predictors of matriculation yield and application levels of MBA programs. It focused on the approximately 425 AACSB-accredited MBA business schools but did not concentrate on other graduate schools, including those MBA programs that are not accredited through the AACSB. Because of this delimitation, results can be generalized only for AACSB-accredited MBA schools.

One of the main foci of this study was website relationship marketing, and one limitation was the level to which admission professionals and other key constituents took proactive roles in connecting with prospective students in ways other than through online capabilities. This study assumed that online relationship marketing levels aligned with the philosophy of the admission office. Furthermore, prospective students based their MBA school choice on various factors, some of which might be outside the scope of this study, but the most prominent college choice factors were utilized.

Also, the matriculation yields were gathered from the latest edition of *The Best 296 Business Schools* (The Princeton Review, 2012), and the institutional data always are

reported from the previous year. Website features often are being changed or completely overhauled, so some relationship marketing engagement levels may not have accurately reflected the program's matriculation yield and application levels. However, to help minimize this limitation, the researcher utilized Archive.com, a free Internet archive service that allows one to review the appearance and functions of websites from previous years. This allowed the researcher to align the matriculation yield data with the relationship marketing levels.

Finally, when reviewing traditional marketing variables, the researcher was limited to institutional data that was openly published. Because marketing budgets are highly sensitive, most institutions would not be willing to supply someone from outside of the organization with this data. Ideally, the researcher would have had marketing budgets for the "promotion" variable; however, operating budgets were the only published data that would fit the variable.

CHAPTER 4. RESULTS

Introduction

This chapter provides an overview of the results of this MBA marketing study and is organized into four sections. The first section reports the institutional characteristics of the 120 AACSB MBA programs randomly sampled in the study. The second section reports the overall relationship marketing results and how website relationship marketing differs according to institutional characteristics. The third section reports the results of the correlations designed to explain the relationships among the five marketing variables. The fourth section reports the results of the multiple regression analyses designed to predict application levels and matriculation yield.

Institutional and MBA Program Characteristics

Research Question 1: What are the characteristics of the AACSB MBA programs randomly selected for this study?

Institutional Characteristics

Frequency analyses were conducted to better understand the institutional characteristics of the 120 MBA programs that were randomly selected for this study. Institutional data were gathered from multiple public data sets, which included the 2013 U.S. News and World Report Graduate School Rankings (“Top Business Schools,” 2013), the 2013 edition of The Princeton Review’s (2012) *The Best 296 Business Schools*, *The Carnegie Classification of Institutions of Higher Education* (Carnegie Foundation for the Advancement of Teaching [Carnegie], 2013), the AACSB (2103), and the individual MBA programs’ websites. These datasets provided information regarding the traditional marketing mix of price, product, promotion, and place. For this study, price was be represented by tuition.

Product used rankings, acceptance rates, student-to-faculty ratio, and employment statistics. Promotion was represented by the operating budget per student, and place used opportunity of residential life, a satellite campus, and online degrees. In addition, numbers of applications, admissions, and matriculations of the MBA programs were given to assist in the description of the selected institutions. Detailed descriptions of the institutional characteristics are presented in Table 4.1. Of the 120 MBA programs randomly selected for this study, 70% ($n = 84$) were publicly funded institutional whereas 30% ($n = 36$) were independent (private) universities.

Table 4.1

Characteristics of the Institutions

Variable	<i>n</i>	%
Institution type		
Public	84	70
Private	36	30
Carnegie classification		
Bac/A&S	1	0.08
Doctorate/Research	14	11.7
Master's Large	35	29.2
Master's Medium	4	3.3
Master's Small	2	1.7
Research University/High	29	24.2
Research University/Very High	34	28.3
Specific Business	1	0.08
Overall university enrollment (median = 15,144)		
0–4,999	13	10.9
5,000–9,999	27	22.7
10,000–19,999	36	30.3
20,000–29,999	23	19.3
30,000–39,999	14	11.8
40,000 and above	6	5.0

The highest frequency by Carnegie Classification (Carnegie, 2013) was “Master’s Large” at 29.2% ($n = 35$), which was followed closely by “Research University/Very High” at 28.3% ($n = 34$). “Research University/High” represented 24.2% ($n = 29$) of the sample, and 11.7% ($n = 114$) were considered “Doctorate/Research” institutions. “Master’s Medium,” “Master’s Small,” “Baccalaureate,” and “Specific Business” represented a small number of institutions at 3.3% ($n = 4$), 1.7% ($n = 2$), 0.8% ($n = 1$), and 0.8% ($n = 1$), respectively.

In addition, the overall institutional enrollment median was 15,144 students, with the highest frequency being the 10,000–19,000 range at 30.3% ($n = 36$). The second and third highest frequencies were the 5,000–10,000 and 20,000–29,000 ranges at 22.7% ($n = 27$) and 19.3% ($n = 23$), respectively.

MBA Program Characteristics

Detailed characteristics of the MBA programs selected for this study are presented in Table 4.2. Because approximately 25% of the over 400 AACSB MBA programs are ranked in the U.S. News and World Report’s annual graduate school rankings (“Top Business Schools,” 2013), a stratified random sample was utilized to capture the same balance in the study. Approximately 25% ($n = 31$) of the MBA programs in this study were ranked, and the other 75% ($n = 89$) were unranked.

The median overall enrollment for the MBA programs was 228 students. Enrollment from both the 100–199 and 500 and above ranges represented 23.5% of the sample ($n = 28$) and enrollment between 0 and 99 was 21% ($n = 21$). The smallest percentage of enrollment was the 400–499 range at 6.7% ($n = 8$).

Table 4.2

Characteristics of the MBA Programs

Variable	<i>n</i>	%
U.S. News & World Report rankings		
Ranked	31	25.8
Unranked	89	74.2
Overall MBA enrollment (median = 228)		
0–99	25	21.0
100–199	28	23.5
200–299	17	14.3
300–399	13	10.9
400–499	8	6.7
500 and above	28	23.5
MBA full-time program enrollment (median = 88)		
0–49	32	26.9
50–99	36	30.3
100–199	34	28.6
200–299	10	8.4
300–399	2	1.7
400 and above	5	4.2
Student/faculty ratio (median = 13:1)		
0–5	22	20.8
6–10	21	19.8
11–15	25	23.6
16–20	10	9.4
21–25	7	6.0
26 and above	11	10.4
Employment rates (median = 77.5%)		
0–39%	2	4.6
40–59%	11	15.9
60–79%	24	34.8
80–89%	17	24.6
90–100%	15	21.7

In addition, the median full-time MBA enrollment was 88 students. The largest enrollment range for full-time students was 50–99 at 30.3% ($n = 36$), and the next two ranges, 100–199 and 0–49, followed closely representing 28.6% ($n = 34$) and 26.9% ($n = 34$), respectively. The smallest full-time enrollment in this study occurred at institutions with 200 students and above, with 17 institutions representing 14.3% of the sample.

The median student-to-faculty ratio was 13 students for every single faculty member. With 25 institutions represented, the ratio of 11–15 students per faculty member was the largest (23.6%) and the ratios of 0–5 and 6–10 students per faculty member followed closely at 20.8% ($n = 22$) and 19.8% ($n = 21$), respectively. Combined, the ratios of 16–20, 21–24, and 25 and above students per faculty member constituted 25.8% of the sample ($n = 29$).

The median percentage of MBA graduates' 6-month employment rate was 77.5% with the 60–79% interval having the largest frequency of 24 institutions (34.8%). The second and third largest percentages were the intervals of 80–89% and 90–100%, with 24.6% ($n = 17$) and 21.7% ($n = 15$), respectively.

Detailed financial characteristics of the MBA programs sampled for this study are highlighted in Table 4.3. The median tuition per year was \$22,453 with the \$20,000–\$29,999 having the largest frequency of 38 institutions (31.9%), followed closely by \$10,000–\$19,999 at 29.4% ($n = 35$). The tuition interval of \$30,000–\$39,999 reflected 15.1% ($n = 18$) of the programs, and the \$0–\$9,999 and \$40,000–\$49,999 tuition ranges each represented 10% of the sample (8.4%). Finally, tuition of \$50,000 or above had the smallest percentage at 6.7% ($n = 8$).

Table 4.3

Financial Characteristics of the MBA Programs

Variable	<i>n</i>	%
Tuition per year (median = \$22,453)		
\$0–\$9,999	10	8.4
\$10,000–\$19,999	35	29.4
\$20,000–\$29,999	38	31.9
\$30,000–\$39,999	18	15.1
\$40,000–\$49,999	10	8.4
\$50,000 and above	8	6.7
Scholarship amount (median = \$5,400)		
\$0–\$1,999	23	19.3
\$2,000–\$4,999	30	25.2
\$5,000–\$9,999	31	26.1
\$10,000–\$14,999	15	12.6
\$15,000–\$19,999	11	9.2
\$20,000 and above	9	7.6
Net cost (median = \$17,600)		
\$0–\$9,999	24	20.2
\$10,000–\$19,999	52	43.7
\$20,000–\$29,999	25	21.0
\$30,000–\$39,999	13	10.9
\$40,000–\$49,999	4	3.4
\$50,000 and above	1	0.8
Operating budget per student (median = \$5,910)		
\$0–\$2,999	26	23.4
\$3,000–\$5,999	30	27.0
\$6,000–\$8,999	12	10.8
\$9,000–\$11,999	12	10.8
\$12,000–\$14,999	2	1.7
\$15,000 and above	29	26.1

The median scholarship per MBA student was \$5,400. The two largest scholarship frequencies were \$5,000–\$9,999 and \$2,000–\$4,999 at 26.1% ($n = 31$) and 25.2% ($n = 30$), respectively. In addition, the \$0–\$1,999 interval had a frequency of 23 institutions (19.3%).

The median operating budget per current MBA student was \$5,910. The overall frequencies were shown to be the strongest on the lower and higher end with 23.4% ($n = 26$) at less than \$2,999 and 26.1% ($n = 29$) of the operating budget per student at \$15,000 or higher. Additionally, 27% ($n = 30$) of institutions fell into the \$3,000–\$5,999 category.

Admission Characteristics of the MBA Programs

Detailed admission characteristics of the MBA programs sampled for this study are highlighted in Table 4.4. The median number of applications received on an annual basis at MBA programs was 190, and the largest frequency was the 100–199 application interval with 27.7% ($n = 33$) of the sample. The second and third largest frequencies were 0–99 applications and 500 and above with 26.1% ($n = 31$) and 17.6% ($n = 21$), respectively. The smallest frequency was the 400–499 interval, representing 5% ($n = 6$) of the sample.

The median acceptance rate of MBA programs was 63%. The most common interval was the 60-79% acceptance rate with 33.6% ($n = 40$) of the MBA program sample. The second and third largest acceptance rate frequencies were 40–59% and 80–100% at 31.9% ($n = 38$) and 21% ($n = 25$), respectively.

The median matriculation yield was 62%. The 60–79% matriculation yield range was the largest interval at 40.2% ($n = 47$) of the sample in that interval. The second and third largest frequencies were 40–59% and 80–100% matriculation yields at 36.8% ($n = 43$) and 15.4% ($n = 18$), respectively.

Table 4.4

Admission Characteristics of the MBA Programs

Variable	<i>n</i>	%
Number of applications (median = 190)		
0–99	31	26.1
100–199	33	27.7
200–299	16	13.4
300–399	12	10.1
400–499	6	5.0
500 and above	21	17.6
Acceptance percentage (median = 63%)		
0–19	2	1.7
20–39	11	9.2
40–59	38	31.9
60–79	40	33.6
80–100	25	21.0
Matriculation yield percentage (median = 62%)		
0–19	2	1.7
20–39	7	6.0
40–59	43	36.8
60–79	47	40.2
80–100	18	15.4

Descriptive Analysis Summary

Of the 120 MBA programs randomly selected for this study, 70% ($n = 84$) were publicly funded institutional and 30% ($n = 36$) were independent (private) universities. The highest frequency within Carnegie Classification (Carnegie, 2013) was “Master’s Large” at 29.2% ($n = 35$) followed closely by “Research University/Very High” at 28.3% ($n = 34$). In addition, the overall institutional median enrollment was 15,144 students, with the highest frequency being the 10,000–19,000 range at 30.3% ($n = 36$). Approximately 25% ($n = 31$) of the MBA programs in this study were ranked, and the other 75% ($n = 89$) were unranked.

The median overall enrollment for the MBA programs was 228 students. Enrollment for both the 100–199 and 500 and above student ranges each represented 23.5% of the sample ($n = 28$) and enrollment of between 0 and 99 students was 21% ($n = 21$). In addition, the median full-time MBA enrollment was 88 students. The largest enrollment range for full-time students was 50–99 at 30.3% ($n = 36$). The median student-to-faculty ratio was 13 students for every single faculty member. The median percentage of MBA graduates' 6-month employment rate was 77.5% with the 60–79% interval having the largest frequency of 24 institutions (34.8%).

The median tuition per year was \$22,453, with the \$20,000–\$29,999 having the largest frequency of 38 institutions (31.9%), and the median scholarship per student at MBA programs was \$5,400. The median operating budget per current MBA student was \$5,910. The median number of applications received on an annual basis at MBA programs was 190, the median acceptance rate of MBA programs was 63%, and the median matriculation yield was 62%.

Relationship Marketing Levels

Research Question 2: What are the relationship marketing levels on MBA program websites?

The 120 MBA program websites were coded by the researcher using the five-level model of relationship marketing for assessing websites. These results were used not only for descriptive analysis, but also for the people variable in the Pearson correlation and regression analyses.

Detailed overall results for the five-level model of relationship marketing for all MBA programs in this study are highlighted in Table 4.5. The highest overall mean score

from all MBA websites was for faculty ($M = 3.97$). Admission professionals had the next highest average relationship marketing mean score ($M = 2.37$), followed by current students ($M = 2.14$). Based on the five-level model, the faculty mean score was at the proactive level. Both admission professionals and current students were at the reactive level. With a mean score of 1.82, the alumni feature was between the basic and reactive levels.

Table 4.5

Five-Level Model of Relationship Marketing for All MBA Programs

Variable	Result	<i>n</i>	%	<i>M</i>	<i>SD</i>	Variance
Admission professionals	1	31	25.8	2.37	1.07	1.14
	2	35	29.2			
	3	35	29.2			
	4	17	14.2			
	5	2	1.7			
Current students	1	48	40.0	2.14	1.18	1.38
	2	29	24.2			
	3	26	21.7			
	4	12	10.0			
	5	5	4.2			
Faculty	1	4	3.3	3.97	1.00	1.01
	2	4	3.3			
	3	26	21.7			
	4	44	36.7			
	5	42	35.0			
Alumni	1	67	55.8	1.82	1.09	1.19
	2	23	19.2			
	3	17	14.2			
	4	11	9.2			
	5	2	1.7			

Note. For all variables, $n = 120$, minimum value = 1, and maximum value = 5.

Detailed ranked MBA program results for the five-level model of relationship marketing for this study are highlighted in Table 4.6. The highest overall mean score from all MBA websites was for faculty ($M = 4.39$). Current students had the next highest average relationship marketing mean score ($M = 2.65$) followed by admission professionals ($M = 2.36$). The alumni category had the lowest mean score ($M = 2.16$). Based on the five-level

Table 4.6

Five-Level Model of Relationship Marketing for Ranked MBA Programs

Variable	Result	<i>n</i>	%	<i>M</i>	<i>SD</i>	Variance
Admission professionals ^a	1	7	22.6	2.39	1.16	1.26
	2	12	38.7			
	3	6	19.4			
	4	5	16.1			
	5	1	3.2			
Current students ^a	1	10	32.3	2.65	1.43	2.04
	2	4	12.9			
	3	8	25.8			
	4	5	16.1			
	5	4	12.9			
Faculty ^b	1	0	0.0	4.39	0.84	0.71
	2	1	12.9			
	3	3	25.8			
	4	8	25.8			
	5	18	58.1			
Alumni ^a	1	16	51.6	2.16	1.39	1.94
	2	3	9.7			
	3	5	16.1			
	4	5	16.1			
	5	2	6.5			

^a $n = 31$, minimum value = 1, and maximum value = 5. ^b $n = 31$, minimum value = 2, and maximum value = 5.

model, the faculty mean score was at the proactive level. Admission professionals, current students, and alumni were at the reactive level.

Detailed results of the five-level model of relationship marketing for unranked MBA program in this study are highlighted in Table 4.7. The highest overall mean score from all MBA websites was for faculty ($M = 3.82$). Admission professionals had the next highest average relationship marketing mean score ($M = 2.36$). Current students and alumni had the

Table 4.7

Five-Level Model of Relationship Marketing for Unranked MBA Programs

Variable	Result	<i>n</i>	%	<i>M</i>	<i>SD</i>	Variance
Admission professionals	1	24	27.0	2.36	1.06	1.12
	2	23	25.8			
	3	29	32.6			
	4	12	13.5			
	5	1	1.1			
Current students	1	38	42.7	1.97	1.03	1.06
	2	25	28.1			
	3	18	20.2			
	4	7	7.9			
	5	1	1.1			
Faculty	1	4	4.5	3.82	1.02	1.04
	2	3	3.4			
	3	22	24.7			
	4	36	40.4			
	5	24	27.0			
Alumni	1	67	55.8	1.70	1.095	0.87
	2	23	19.2			
	3	17	14.2			
	4	11	9.2			
	5	2	1.7			

Note. For all variables, $n = 89$, minimum value = 1, and maximum value = 5.

smallest mean scores at $M = 1.97$ and $M = 1.70$, respectively. Based on the five-level model, the mean score was at the proactive level and the admission professionals feature was at the reactive level. Current students and alumni mean scores fell between basic and reactive.

Detailed public MBA program results of the five-level model of relationship marketing for this study are highlighted in Table 4.8. The highest overall mean score from all MBA websites was for faculty ($M = 3.98$). Admission professionals had the next highest

Table 4.8

Five-Level Model of Relationship Marketing for Public MBA Programs

Variable	Result	<i>n</i>	%	<i>M</i>	<i>SD</i>	Variance
Admission professionals	1	22	26.2	2.37	1.06	1.13
	2	23	27.4			
	3	26	31.0			
	4	12	14.3			
	5	1	1.2			
Current students	1	27	32.1	2.25	1.14	1.30
	2	25	29.8			
	3	19	22.6			
	4	10	11.9			
	5	3	3.6			
Faculty	1	2	2.4	3.98	0.90	0.82
	2	1	1.2			
	3	20	23.8			
	4	35	41.7			
	5	26	31.0			
Alumni	1	43	51.2	1.94	1.12	1.26
	2	14	16.7			
	3	17	20.2			
	4	9	10.7			
	5	1	1.2			

Note. For all variables, $n = 84$, minimum value = 1, and maximum value = 5.

average relationship marketing mean score ($M = 2.37$). Current students and alumni mean scores followed at $M = 2.25$ and $M = 1.94$, respectively. Based on the five-level model, the faculty mean score was at the proactive level. Admission professionals and current students were at the reactive level, and the alumni category was between the basic and reactive levels.

Detailed private MBA program results of the five-level model of relationship marketing for this study are highlighted in Table 4.9. The highest overall mean score from

Table 4.9

Five-Level Model of Relationship Marketing for Private MBA Programs

Variable	Result	<i>n</i>	%	<i>M</i>	<i>SD</i>	Variance
Admission professionals	1	9	25.0	2.36	1.10	1.21
	2	12	33.3			
	3	9	25.0			
	4	5	13.9			
	5	1	2.8			
Current students	1	21	58.3	1.89	1.24	1.53
	2	4	11.1			
	3	7	19.4			
	4	2	5.6			
	5	2	5.6			
Faculty	1	2	5.6	3.94	1.48	1.48
	2	3	8.3			
	3	6	16.7			
	4	9	25.0			
	5	16	44.4			
Alumni	1	24	66.7	1.53	0.97	0.94
	2	9	25.0			
	3	0	0.0			
	4	2	5.6			
	5	1	2.8			

Note. For all variables, $n = 36$, minimum value = 1, and maximum value = 5.

all MBA websites was again for faculty ($M = 3.94$). Admission professionals had the next highest average relationship marketing mean score ($M = 2.36$). Current students and alumni mean scores followed at $M = 1.89$ and $M = 1.53$, respectively. Based on the five-level model, the faculty mean score was at the proactive level. Admission professionals were at the reactive level and both current students and alumni were between the basic and reactive levels.

Five-level Model of Relationship Marketing Summary

The use of faculty features on program websites ranked highest in all categories of MBA programs (overall, ranked, unranked, public, and private). In addition, the use of alumni features on program websites was ranked the lowest in all categories of MBA programs. The use of admission professionals was ranked second in all but the private program category, in which case the current students feature was ranked second.

Relationships Between Marketing Mix Variables

Research Question 3: Is there a correlation between the marketing variables (price, product, place, promotion, and people) among MBA programs?

All MBA Programs

Data for all sampled MBA programs were placed in the dataset and were analyzed using Pearson correlations for the independent variables price, product, place, promotion, and people. Every variable was analyzed on the remaining four variables, which created 10 correlation results. The results of the Pearson correlations for all MBA programs are detailed in Table 4.10.

The Pearson correlation results for price and product revealed a statistically significant positive relationship between the price and product variables. The correlation

coefficient was $r = .564, p < .01$. The positive correlation shows that as institutional price increased/decreased so did product. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 31.8% of the variance in price could be predicted from product.

The Pearson correlation results for price and promotion revealed a statistically significant positive relationship between the price and promotion variables. The correlation coefficient was $r = .522, p < .01$. The positive correlation shows that as institutional price increased/decreased so did promotion. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 27.2% of the variance in price could be predicted from promotion.

The Pearson correlation results for product and promotion revealed a statistically significant positive relationship between the product and promotion variables. The correlation coefficient was $r = .580, p < .01$. The positive correlation shows that as institutional product increased/decreased so did promotion. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 33.6% of the variance in price could be predicted from promotion.

Table 4.10

Pearson Correlation for Marketing Variables of All MBA Programs

Variables	Price	Product	Place	Promotion	People
Price	—				
Product	.564**	—			
Place	.021	-.165	—		
Promotion	.522**	.580**	-.241*	—	
People	.178	.116	.116	.017	—

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed).

The Pearson correlation results for place and promotion revealed a statistically significant positive relationship between the place and promotion variables. The correlation coefficient was $r = -.241, p < .05$. The negative correlation shows that as institutional place values rose, promotion values lowered and vice versa. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 27.2% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and place, along with place and product; revealed no significance. In addition, the people variable did not show statistically significant relationships with any of the other variables.

Ranked MBA Programs

Data from ranked MBA programs were placed in the dataset and were analyzed using Pearson correlations for the independent variables price, product, place, promotion, and people. Every variable was analyzed on the remaining four variables, which created 10 correlation results. The results of the Pearson correlations for all MBA programs are detailed in Table 4.11.

The Pearson correlation results for price and product revealed a statistically significant positive relationship between the price and product variables. The correlation coefficient was $r = .44, p < .05$. The positive correlation shows that as institutional price increased/decreased so did product. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 19.3% of the variance in price could be predicted from product.

The Pearson correlation results for price and promotion revealed a statistically significant positive relationship between the price and promotion variables. The correlation

Table 4.11

Pearson Correlation for Marketing Variables of Ranked MBA Programs

Variables	Price	Product	Place	Promotion	People
Price	—				
Product	.440*	—			
Place	-.170	-.262	—		
Promotion	.441*	.402*	-.471**	—	
People	.127	.275	-.144	.104	—

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed).

coefficient was $r = .441$, $p < .01$. The positive correlation shows that as institutional price increased/decreased so did promotion. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 19.4% of the variance in price could be predicted from promotion.

The Pearson correlation results for product and promotion revealed a statistically significant positive relationship between the product and promotion variables. The correlation coefficient was $r = .402$, $p < .01$. The positive correlation shows that as institutional product increased/decreased so did promotion. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 16.2% of the variance in price could be predicted from promotion.

The Pearson correlation results for place and promotion revealed a statistically significant positive relationship between the place and promotion variables. The correlation coefficient was $r = -.471$, $p < .01$. The negative correlation shows that as institutional place increased, promotion decreased and vice versa. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 22.2% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and place, along with place and product, for ranked MBA programs revealed no significance. In addition, the people variable did not show statistically significant relationships with any of the other variables.

Unranked MBA Programs

Data from unranked MBA programs were placed in the dataset and were analyzed using Pearson correlations on the independent variables price, product, place, promotion, and people. Every variable was analyzed on the remaining four variables, which created 10 correlation results. The results of the Pearson correlations for all MBA programs are detailed in Table 4.12.

The Pearson correlation results for price and product revealed a statistically significant positive relationship between the price and product variables. The correlation coefficient was $r = .377, p < .01$. The positive correlation shows that as institutional price increased/decreased so did product. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 14.2% of the variance in price could be predicted from product.

The Pearson correlation results for price and promotion revealed a statistically significant positive relationship between the price and promotion variables. The correlation coefficient was $r = .224, p < .05$. The positive correlation shows that as institutional price increased/decreased so did promotion. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 5% of the variance in price could be predicted from promotion.

The Pearson correlation results for product and promotion revealed a statistically significant positive relationship between the product and promotion variables. The

correlation coefficient was $r = .299, p < .05$. The positive correlation shows that as institutional product increased/decreased so did promotion. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 8.9% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and people revealed a statistically significant positive relationship between the place and promotion variables. The correlation coefficient was $r = .254, p < .05$. The positive correlation shows that as price increased/decreased so did people. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 6.5% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and place, product and place, promotion and place, people and product, people and place, and people and promotion for unranked MBA programs were not statistically significant.

Table 4.12

Pearson Correlation for Marketing Variables of Unranked MBA Programs

Variables	Price	Product	Place	Promotion	People
Price	—				
Product	.377**	—			
Place	.199	-.119	—		
Promotion	.224*	.299**	-.177	—	
People	.254*	.043	.194	-.056	—

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed).

Public University MBA Programs

Data from public university MBA programs were placed in the dataset and were analyzed using the Pearson correlations on the independent variables price, product, place, promotion, and people. Every variable was analyzed on the remaining four variables, which created 10 correlation results. The results of the Pearson correlation for all MBA programs are detailed in Table 4.13.

The Pearson correlation results for price and product revealed a statistically significant positive relationship between the price and product variables. The correlation coefficient was $r = .574, p < .01$. The positive correlation shows that as institutional price increased/decreased so did product. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 32.9% of the variance in price could be predicted from product.

The Pearson correlation results for price and promotion revealed a statistically significant positive relationship between the price and promotion variables. The correlation coefficient was $r = .483, p < .01$. The positive correlation shows that as institutional price increased/decreased so did promotion. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 23.3% of the variance in price could be predicted from promotion.

The Pearson correlation results for product and promotion revealed a statistically significant positive relationship between the product and promotion variables. The correlation coefficient was $r = .516, p < .01$. The positive correlation shows that as institutional product increased/decreased so did promotion. The strength of the relationship

is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 26.6% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and people revealed a statistically significant positive relationship between the place and promotion variables. The correlation coefficient was $r = .309, p < .01$. The positive correlation shows that as price increased/decreased so did people. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 9.5% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and place, product and place, promotion and place, people and product, people and place, and people and promotion for public university MBA programs were not statistically significant.

Table 4.13

Pearson Correlation for Marketing Variables of Public MBA Programs

Variables	Price	Product	Place	Promotion	People
Price	—				
Product	.574**	—			
Place	.082	-.032	—		
Promotion	.483**	.516**	-.162	—	
People	.309**	.126	.047	.121	—

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed).

Private University MBA programs

Data from private university MBA programs were placed in the dataset and were analyzed using Pearson correlations on the independent variables price, product, place, promotion, and people. Every variable was analyzed on the remaining four variables that

created ten correlation results. The results of the Pearson correlation for all MBA programs are detailed in Table 4.14.

The Pearson correlation results for price and product revealed a statistically significant positive relationship between the price and product variables. The correlation coefficient was $r = .581, p < .01$. The positive correlation shows that as institutional price increased/decreased so did product. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 33.7% of the variance in price could be predicted from product.

The Pearson correlation results for price and promotion revealed a statistically significant positive relationship between the price and promotion variables. The correlation coefficient was $r = .572, p < .01$. The positive correlation shows that as institutional price increased/decreased so did promotion. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 32.9% of the variance in price could be predicted from promotion.

The Pearson correlation results for product and promotion revealed a statistically significant positive relationship between the product and promotion variables. The correlation coefficient was $r = .677, p < .01$. The positive correlation shows that as institutional product increased/decreased so did promotion. The strength of the relationship is considered to be strong (Urdan, 2010). The coefficient of determination indicates that 45.8% of the variance in price could be predicted from promotion.

The Pearson correlation results for place and promotion revealed a statistically significant positive relationship between the place and promotion variables. The correlation coefficient was $r = -.342, p < .05$. The negative correlation shows that as institutional place

improved promotion declined and vice versa. The strength of the relationship is considered to be moderate (Urdan, 2010). The coefficient of determination indicates that 11.6% of the variance in price could be predicted from promotion.

The Pearson correlation results for price and place, product and place, promotion and place, people and product, people and place, and people and promotion for private university MBA programs were not statistically significant.

Table 4.14

Pearson Correlation for Marketing Variables of Private MBA Programs

Variables	Price	Product	Place	Promotion	People
Price	—				
Product	.581**	—			
Place	-.041	-.342*	—		
Promotion	.572**	.677**	-.331	—	
People	-.051	.109	.25	-.083	—

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed).

Correlation Summary

The relationships between price and product, price and promotion, and product and promotion all had statistically significant positive correlations in all five categories of MBA programs (overall, ranked, unranked, public, and private). The relationships between place and promotion had statistically significant negative correlations for overall and ranked MBA programs. Also, unranked programs, along with public programs, showed a statistically significant relationship between price and people. Additionally, the private institutions category was the only one to show a statistically significant negative relationship between place and product.

Predictors of Numbers of Applications

Research Question 4: To what extent do traditional marketing mix variables and relationship marketing levels predict the number of applications MBA programs receive?

A regression model was developed using the marketing mix and relationship marketing theories as a framework for the independent variables. Multicollinearity among independent variables was a concern. When two or more independent variables are strongly correlated, the importance of each variable relationship within the model is difficult to determine. A variance inflation factor (VIF) was computed in each of the application level regression models to determine if multicollinearity was a concern for the analyses. None of the VIF tests indicated issues with multicollinearity for the independent variables.

A multiple regression analysis was conducted to examine the predictors of application levels at all MBA programs; the detailed results are shown in Table 4.15. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. The predictors of the MBA application level model were statistically significant. Together,

Table 4.15

Predictors of MBA Application Levels for All MBA Programs

Variable	β
Price	.108
Product	.615***
Promotion	-.007
Place	-.055
People	.135
Adjusted $R^2 = .462$	

Note. $N = 120$.

*** $p \leq .001$.

these predictors accounted for 46.2% of the variance in application levels. Product ($\beta = .615$) was the only statistically significant individual predictor ($p < .001$) of application levels; however, it had a strong relationship (Urdan, 2010).

A multiple regression analysis was conducted to examine the predictors of application levels at ranked MBA programs, and the detailed results are in Table 4.16. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. The predictors for the MBA application level model were statistically significant. Together, these predictors accounted for 45.8% of the variance in application levels. Only product ($\beta = .661$) was a statistically significant predictor ($p < .001$) of application levels within the model, and it had a strong relationship with the dependent variable (Urdan, 2010).

Table 4.16

Predictors of MBA Application Levels for Ranked Programs

Variable	β
Price	.073
Product	.661***
Promotion	-.035
Place	-.119
People	-.156
Adjusted $R^2 = .458$	

Note. $N = 31$.

*** $p \leq .001$.

A multiple regression analysis was conducted to examine the predictors of application levels at unranked MBA programs, and the detailed results are shown in Table 4.17. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. This model was not statistically significant. Together, these predictors

Table 4.17

Predictors of MBA Application Levels for Unranked Programs

Variable	β
Price	.188
Product	.201
Promotion	.023
Place	-.044
People	.231
Adjusted $R^2 = .08$	

Note. $N = 89$.

accounted for 8% of the variance in application levels. None of the variables were significant predictors of application levels.

A multiple regression analysis was conducted to examine the predictors of application levels at public MBA programs and the detailed results are in Table 4.18. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model.

This model was statistically significant, and together, these predictors accounted for 26% of

Table 4.18

Predictors of MBA Application Levels for Public Institutions

Variable	β
Price	.245
Product	.419**
Promotion	-.057
Place	-.022
People	-.169
Adjusted $R^2 = .26$	

Note. $N = 84$.

** $p < .01$.

the variance in application levels. Product ($\beta = .419$) was the only statistically significant individual predictor ($p < .01$) of application levels in this model, and it had a moderate relationship with application levels (Urdan, 2010).

A multiple regression analysis was conducted to examine the predictors of application levels at private MBA programs and the detailed results are in Table 4.19. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. The model for MBA application levels at private institutions was statistically significant. Together, these predictors accounted for 71.4% of the variance in application levels. Only product ($\beta = .969$) was a statistically significant predictor ($p < .01$) of application levels and it had a strong relationship (Urdan, 2010).

Table 4.19

Predictors of MBA Application Levels for Private Institutions

Variable	β
Price	-.042
Product	.969***
Promotion	-.121
Place	-.047
People	-.181
Adjusted $R^2 = .714$	

Note. $N = 36$.

*** $p \leq .001$.

Predictors of Matriculation Yield

Research Question 5: To what extent do traditional marketing mix variables and relationship marketing levels predict MBA program matriculation yield?

A regression model was developed using the marketing mix and relationship marketing theories as a framework for the independent variables. Multicollinearity among independent variables was a concern. When two or more independent variables are strongly correlated, the importance of each variable relationship within the model is difficult to determine. A VIF was computed in each of the matriculation yield regression models to determine if multicollinearity was a concern for the analyses. None of the VIF tests indicated issues with multicollinearity for the independent variables.

A multiple regression analysis was conducted to examine the predictors of matriculation yield at all MBA programs and the detailed results are in Table 4.20. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. This model was statistically significant. Together, these predictors accounted for 23.4% of the variance in matriculation yield. Place, people, and price variables were all

Table 4.20

Predictors of MBA Matriculation Yield

Variable	β
Price	-.263**
Product	.081
Promotion	-.162
Place	.301***
People	.279**
Adjusted $R^2 = .234$	

Note. $N = 120$.

** $p < .01$. *** $p \leq .001$.

statistically significant predictors of matriculation yield. Place was the strongest predictor ($\beta = .301, p < .001$) and followed by people ($\beta = .279, p < .01$). Price was the only statistically significant negative predictor ($\beta = -.263, p < .01$).

A multiple regression analysis was conducted to examine the predictors of matriculation yield with ranked MBA programs and the detailed results are in Table 4.21. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. . This model was statistically significant and together, these predictors accounted for 24.2% of the variance in matriculation yield. Place and product variables were all statistically significant predictors of matriculation yield. Place was the strongest predictor ($\beta = .607, p < .001$), and product was the next strongest ($\beta = .101, p < .05$).

Table 4.21

Predictors of MBA Matriculation Yield for Ranked Programs

Variable	β
Price	.033
Product	.101*
Promotion	.011
Place	.607***
People	.311
Adjusted $R^2 = .242$	

Note. $N = 31$.

* $p < .05$. *** $p \leq .001$.

A multiple regression analysis was conducted to examine the predictors of matriculation yield with unranked MBA programs and the detailed results are in Table 4.22. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. This model was statistically significant. Together, these predictors

Table 4.22

Predictors of MBA Matriculation Yield for Unranked Programs

Variable	β
Price	-.258*
Product	.694
Promotion	-.04
Place	.259*
People	.306**
Adjusted $R^2 = .182$	

Note. $N = 89$.

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

accounted for 18.2% of the variance in matriculation yield. Place, people, and price variables were all statistically significant predictors of matriculation yield. People was the strongest predictor ($\beta = .306$, ** $p < .01$) and was followed by place ($\beta = .259$, $p < .05$). Price was the only statistically significant negative predictor ($\beta = -.258$, $p < .05$).

A multiple regression analysis was conducted to examine the predictors of matriculation yield at public MBA programs and the detailed results are in Table 4.23. The

Table 4.23

Predictors of MBA Matriculation Yield for Public Institutions

Variable	β
Price	-.158
Product	-.212
Promotion	.023
Place	.322**
People	.160
Adjusted $R^2 = .154$	

Note. $N = 84$.

** $p < .01$.

five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. This model was statistically significant and together, these predictors accounted for 15.4% of the variance in matriculation yield. Place ($\beta = .322$) was the only statistically significant ($p < .01$) predictor of matriculation yield for public programs.

A multiple regression analysis was conducted to examine the predictors of matriculation yield at public MBA programs and the detailed results are in Table 4.24. The five predictors (price, product, place, promotion, and people) were simultaneously entered into the model. This model was statistically significant. Together, these predictors accounted for 35.2% of the variance in matriculation yield. Place ($\beta = .515$) was the only statistically significant predictor ($p < .01$) of matriculation yield for public programs.

Table 4.24

Predictors of MBA Matriculation Yield for Private Institutions

Variable	β
Price	-.166
Product	-.023
Promotion	-.108
Place	.198
People	.515**
Adjusted $R^2 = .352$	

Note. $N = 36$.

** $p < .01$.

Regression Analysis Summary

First, when reviewing the marketing mix model for application levels, product was the only independent variable that was a statistically significant predictor of application levels. It was a predictor in all but the unranked MBA programs category. As product levels

improved (ranking, acceptance rates, student-to-faculty ratio, and employment rates), so did application levels. Additionally, it was a strong predictor of applications with β values being .419 or higher.

Price was a statistically significant negative predictor for the overall MBA programs sample and the unranked MBA programs category. As prices (tuition) rose for unranked MBA programs, matriculation levels lowered. Product was a statistically significant predictor of matriculation yield only in ranked MBA programs. As product levels rose (ranking, acceptance rates, student-to-faculty ratio, and employment rates), so did matriculation yields at ranked MBA programs. Place (residential, satellite, and online options) was a statistically significant positive predictor of matriculation yield for overall, ranked, unranked, and public MBA programs. The people variable (weighted average of relationship marketing results) was a statistically significant positive predictor of matriculation yield for the overall, unranked, and private MBA programs. Promotion was not a statistically significant predictor in any of the five MBA program categories.

CHAPTER 5. DISCUSSION AND CONCLUSION

This chapter provides a summary of the study, data analysis and research findings, discussion of the findings, implications for practice, recommendations for future research, and final thoughts. This study identified MBA program institutional characteristics, examined relationship marketing levels, identified relationships among marketing mix variables, and identified factors that predict MBA program matriculation yield and application levels.

The purpose of this study was twofold. National prospective MBA student surveys (AIGAC, 2010; GMAC, 2012; Sevier, 2012) indicated that over 87% of prospective MBA students utilize program websites as their top source for program information and that school admission professionals, current students, faculty, and alumni are strongly influential in the recruiting process. First, this study examined if and how MBA programs are using these key personnel on their websites in the recruiting process. Using Kotler and Armstrong's (1996) five-level relationship marketing model (Han et al., 2005; Kittle & Ciba, 2001; Klassen, 2002) and the four engagement features (admission professionals, current students, faculty, and alumni), the researcher developed a data collection form to assess MBA program relationship marketing. An online content analysis was conducted to collect relationship marketing data. The four engagement areas were based on national prospective MBA student survey results (GMAC, 2012; Sevier, 2012).

Second, this study examined the traditional marketing mix theory (price, product, promotion, and place) in combination with the theory of relationship marketing (people) to predict MBA program matriculation yield and application levels. By revealing which independent variables are strong predictors of matriculation yield and application levels,

MBA administrators will be equipped with a better understanding of where to focus resources when attempting to enhance MBA student enrollment.

The results and conclusions of this study provide administrators at MBA programs a better understanding of predicting factors of application levels and matriculation yield. As MBA applications continue to dwindle (GMAC, 2012), MBA program administrators need to develop an understanding of and foundation for what influences both application levels and matriculation yield.

Summary

This study was conducted using data from AACSB-accredited Master of Business (MBA) programs from various locations across the United States. Based on the literature presented in Chapter 2, marketing mix and relationship marketing variables that impact prospective MBA student college choice were identified. A review of marketing mix and relationship marketing research revealed that most higher education research had been conducted at the undergraduate level; however, prospective MBA student surveys were plentiful. A marketing mix model involving the 5Ps (price, product, place, promotion, and people) based on prospective MBA college choice factors was developed for this study. This study utilized various publicly accessed institutional data for price, product, place, and promotion. Additionally, the five-level model of relationship marketing was used to determine data values for the people variable. Institutional and MBA program characteristics, along with relationship marketing results, were used to create a predictive model for matriculation yield and application levels. Descriptive statistics, Pearson correlations, and regressions were used to analyze the data.

Findings

Research Question 1: What are the characteristics of the AACSB MBA programs randomly selected for this study?

Tables 4.1 through 4.4 provide institutional and MBA program characteristics of the study's selected programs. Colleges and universities with MBA programs that were randomly chosen for this study represented a broad spectrum in terms of institutional characteristics such as Carnegie Classification (Carnegie, 2013), public/independent, and institutional enrollment. In addition, specific MBA program characteristics, such as program enrollment, admission and financial aid data, national ranks, employment rates, and operating budgets, were expansive. However, the MBA programs selected did not include non-AACSB members, for-profit institutions, or online-only programs.

Of the 120 randomly selected MBA programs, 70% ($n = 84$) were public colleges and universities whereas 30% ($n = 36$) were private colleges and universities. As for the Carnegie Classifications (Carnegie, 2013) of 120 programs, 34 (28.3%) were Very High Research Universities, 29 (24.2%) were High Research Universities, 35 (29.2%) were Large Master's, and 14 (11.7%) of the programs were categorized as Doctorate/Research. A much smaller percentage in the study was considered Medium Master's, Small Master's, and Specific Business.

The overall institutional median enrollment was 15,144 students, with the highest frequency (30.3%, $n = 36$) being in the 10,000–19,999 range. Institutions with enrollment in the 5,000–9,999 range reflected the second highest frequency with 27 (22.7%) schools represented. Of the 120 programs, 31 (25%) were ranked in the top 100 and 89 (75%) were unranked by the U.S. News and World Report ("Top Business Schools," 2013).

The overall MBA program median enrollment was 228 students. Enrollment levels in the 100–199 students and 500 and above students ranges each represented 23.5% ($n = 28$) of the sample. Also, the full-time MBA student median enrollment was 88 students with the largest enrollment frequency being in the 50–99 student range ($n = 36$). The median student-to-faculty ratio was 13 students for every single faculty member, and the median percentage of MBA graduates securing full-time work within 6 months of graduation was 77.5%.

The median number of annual applications received was 190, the median acceptance rate was 63%, and the median matriculation yield was 62%. The median tuition per year was \$22,453, and the median scholarship awarded was \$5,400. The median operating budget per student was \$5,910.

Answering this question revealed background characteristics of the institutional and MBA programs to gain a better understanding into what types of programs were used in the study. By doing this, readers, especially MBA administrators, can assess how closely these findings may relate to their specific MBA programs.

Research Question 2: What are the relationship marketing levels on MBA program websites?

Tables 4.5 through 4.9 provide results of the five-level model of relationship marketing content analysis. Faculty relationship marketing levels were the highest among the four most influential program representatives in all MBA program categories (overall, ranked, unranked, public, and private). However, according to the national prospective MBA student surveys used for this study, of the four influencers (admission professionals, current students, alumni, and faculty), faculty is the least influential of the four categories (GMAC, 2012; AIGAC, 2010; Sevier, 2012). Prospective MBA students indicated that admission

professionals were the most influential people in the recruiting process (GMAC, 2012); however, overall, 55% of MBA program websites were ranked at a basic or reactive relationship marketing level, the lowest two rankings. Over 61% of ranked and over 55% of unranked programs were in the weakest two categories when the admission professionals' website features were assessed. Conversely, approximately 16% of admission professionals ranked in the proactive or partnership categories, the top two levels. Slightly over 19% of ranked programs and 14.6% of unranked program were in the strongest two categories when the admission professionals' website features were assessed. The surveys also found that current students and alumni were important influencers in the recruiting process (AIGAC, 2010; GMAC, 2012; Sevier, 2012). However, over 64% of MBA program websites were ranked only at the basic or reactive level for current student features and only slightly over 14% ranked at the top two levels, proactive and partnership. Overall, alumni website relationship marketing represented on MBA program sites was the lowest with 75% at either the basic or reactive level and only 10.9% ($n = 13$) of the MBA programs ranked in the top two levels for that category.

The findings reveal that MBA program administration is focusing most website recruiting efforts on faculty profiles; however the national surveys suggest that faculty, although influential, are not as persuasive as are admission professionals, current students, and alumni. Most MBA websites focus very little on connecting prospective students with other key personnel, such as admission professionals, current students, and alumni.

These findings are supported by previous research. Based on studies conducted by Kittle and Ciba (2001) and Klassen (2002), the lack of connecting prospective students to key university personnel is not surprising. Both studies had results similar to this study.

What might be somewhat surprising is that those studies are more than 10 years old. With advances in technology, one might speculate that more emphasis would have been placed on website relationship marketing. However, generally, colleges and universities are no more advanced in their relationship marketing today as compared to 13 years ago.

Research Question 3: Is there a correlation between the marketing variables (price, product, place, promotion, and people) among MBA programs?

Tables 4.10 through 4.14 provide details results of the Pearson correlation analysis for the five marketing mix factors (price, product, place, promotion, and people). Pearson correlations revealed multiple relationships among the five independent factors. For all MBA programs and ranked programs, price and product, price and promotion, and product and promotion had statistically significant positive relationships. Promotion and place had a statistically significant negative relationship. For unranked and public MBA programs, price and product, price and promotion, product and promotion, and price and people had statistically significant positive relationships. Finally, for private MBA programs, price and product, price and promotion, and product and promotion all had statistically significant positive relationships. Product and place had a statistically significant negative relationship.

According to Satit, Tat, and Rasli (2012), when correlating the 4Ps, in theory, all correlations should be positive. Their study, using travel agents, found that, as any of the 4Ps increased, so did that of the other Ps. They argued that, as a company increases price, a superior product, additional marketing, and more distribution channels should accompany that increase in price. The present study's findings are partially supported by the previous research. Most correlations were statistically significant and had positive relationships. However, two relationships had negative relationships in this study: promotion and place

(overall) and product and place (private programs). This study revealed that, as the number of locations being offered by an MBA program increased, the operating budget per student decreased. Interestingly, as the numbers of locations increased for private programs, the perceived product decreased. This might be because lesser known, more regional-type programs are more likely to offer satellite campuses and online degrees.

Research Question 4: To what extent do traditional marketing mix variables and relationship marketing levels predict the number of applications MBA programs receive?

Tables 4.15 through 4.19 provide detailed results of the regression analysis conducted for application levels as the dependent variable. Table 5.1 provides a condensed version of the findings.

Table 5.1

Predictors of Number of Applications Received

Variables	Price	Product	Place	Promotion	People
All Programs	—	.615***	—	—	—
Ranked	—	.611***	—	—	—
Unranked	—	—	—	—	—
Public	—	.419**	—	—	—
Private	—	.969***	—	—	—

** $p < 0.01$ (2-tailed). *** $p < 0.01$ (2-tailed).

Of the five marketing mix variables (price, product, promotion, place and people), only the product factor was a statistically significant predictor of application levels. The product factor was a strong predictor for application levels at ranked and private institutions and was a moderate predictor at public institutions. The unranked program model was the only application level regression model that was not statistically significant. Relationship marketing factors (people) were not a predictor of application levels. However, of the four

traditional marketing mix factors, product was statistically significant and a strong predictor of application levels.

According to Satit et al. (2012), price and product are the best predictors of influencing a customer's decision. The present study was partially supportive of that claim in MBA program application levels. The previous study was based on the actual decision, which might align with research question #5 better than with this research question because, when prospective students have applied, they have not made a decision to attend yet.

So what influences applicants to apply? From the findings of this study, it is the product and only the product. Price is not a factor. Again, this may be because a prospective student applies to multiple schools and is not initially concerned about the programs' costs. Additionally, prospective students who are looking to simply apply to a program are not concerned about how many locations and online offerings the program has, and the promotion budget per student is not a factor either. Satit et al. (2012) did not factor in the fifth P (people); however, for the present study, the faculty, current students, alumni, and school admission professionals were not factors in prospective students applying to MBA programs.

Research Question 5: To what extent do traditional marketing mix variables and relationship marketing levels predict MBA program matriculation yield?

Tables 4.20 through 4.24 provide detailed results of the regression analysis conducted for application levels as the dependent variable. Table 5.2 provides a condensed version of the findings.

Table 5.2

Predictors of Matriculation Yield

Variables	Price	Product	Place	Promotion	People
All Programs	-.263**	—	.301***	—	.279**
Ranked	—	.101*	.607***	—	—
Unranked	-.258*	—	.259*	—	.306**
Public	—	—	.322**	—	—
Private	—	—	—	—	.515**

* $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed). *** $p < 0.01$ (2-tailed).

Of the five marketing mix variables (price, product, promotion, place, and people), four were predictors of matriculation yield. All of the matriculation yield regression models were statistically significant. Promotion was the only factor that did not predict matriculation yield in at least one of the categories. Place and people were statistically significant positive predictors of MBA programs, and price was a statistically significant negative predictor. Among ranked programs, product and place were statistically significant positive predictors of matriculation yield. Place and people were statistically significant predictors of matriculation yield, and price was a negative predictor of matriculation yield. Among public institutions, place was a statistically significant predictor of matriculation. The people factor was the only statistically significant predictor of matriculation yield among private MBA programs. This study found that relationship marketing factors (people), along with traditional marketing mix factors (price, product, and place) were statistically significant and strong predictors of matriculation yield.

This study's findings are supported by the findings of Satit et al. (2012), who found that both price and product were predictors of a customer's decision. However, the Satit et al. study focused solely on the 4Ps and not the fifth P (people). The present study found that,

not only were price and product strong predictors of matriculation yield, but place and people (relationship marketing) also were strong predictors. This reveals that admitted students, like other consumers in general, are concerned about the price and product but also influenced by relationships with key program personnel (faculty, current students, alumni, and school admission professionals) and place (number of location offerings). One reason the fifth P might be so influential is that admitted students know they will be part of the program for an extended amount of time. This is not a quick “buyer/seller” transaction. On average, this is a 2-year commitment. Prospective students may want to get to know individuals with who they will interact if they attend that particular MBA program. In addition, place or “distribution” is intuitive because, as programs offer more satellite locations and online degrees, the matriculation yield increases.

Discussion

Although characteristics of MBA programs vary greatly, the randomly selected sample of MBA programs were similar to the overall characteristic averages. The 2012 GMAC application trends data indicated that the average MBA program receives approximately 170 applications per year with 66% of those being accepted into the program. For this study, the median number of applications submitted and the median percentage accepted were 190 and 63%, respectively. Unfortunately, most other national MBA statistics were unavailable.

The content analysis conducted on MBA program websites using the five-level model of relationship marketing found that faculty have the highest levels of relationship marketing. This indicates that MBA programs are promoting and highlighting faculty backgrounds and accomplishments on their respective websites. Based on the five-level model, prospective

students should have adequate access to faculty during the prospective student recruiting process. Admission professionals and current students ranked second and third, respectively, with regard to relationship marketing. However, based on national prospective student surveys (AIGAC, 2010; GMAC, 2012; Sevier, 2012), admission professionals and current students are the most influential school representatives. Based on the five-level model, prospective students have fewer opportunities on the MBA program website to access contact information for admission professionals and current students. Of the four categories of influencers, prospective students have the weakest opportunity to learn more about and/or connect with alumni of the MBA program. In fact, very few MBA program websites have alumni information for prospective students to view.

The Pearson correlation analysis conducted for this study revealed several statistically significant relationships among the marketing mix independent variables. Price and product had a strong positive relationship, which indicates that as the product level increases or decreases, price reflects the same change. The relationship suggests that as the strength of the MBA product improves, the program increases its tuition. Price and promotion also had a strong positive relationship. As stated previously, the college of business operating budget per MBA student was used as the promotion variable. This relationship reveals that, as tuition increases/decreases, so does the operating budget per student. In addition, product and promotion had a strong positive relationship. As the strength of product (rank, acceptance rate, student-to-faculty ratio, and employment rate) increases, so does the operating budget per MBA student. The lone negative relationship was promotion and place. As previously stated, the place variable was calculated using residential, satellite, and online offerings as distribution. As the number of location offerings increases, the operating budget

per student decreases. This indicates that MBA programs do not expand their operating budget when adding satellite and online programs.

Unranked and public MBA programs had a strong positive relationship between price and people. Thus, as tuition increases/decreases, so does the relationship marketing levels (admission professionals, current students, faculty, and alumni). In addition, private MBA programs showed a strong negative relationship between product and place. Thus, as the number of locations (residential, satellite, and online) at private programs increase, the product levels decrease.

The two dependent variables (annual application levels and matriculation yield) and five independent variables (price, product, place, promotion, and people) were entered into the regression model. The product variable was the only statistically significant factor in predicting application levels. This study revealed that, when MBA prospective students are applying to programs, the most influential factors are reputation (rankings and acceptance rate, student-to-faculty ratio) and career prospects (6-month employment rate). Price (tuition), place (residential, satellite, or online), promotion (operating budget per student), and people (relationship marketing levels) are not statistically significant predictors of application levels at MBA programs. When reviewing application levels, traditional marketing mix factors should be heavily considered; however, this study revealed that relationship marketing factors do not play a role in application levels.

Once prospective MBA students have been admitted to MBA programs, the predictors of matriculation yield shift to other variables in the college choice process. While students were in the process of making college choice decisions, price, product, place, and people were predictors of matriculation yield among the sampled MBA programs. As the

number of options for site locations expand (residential, satellite, and online), so does matriculation yield. This indicates that prospective students consider the place variable as an important factor when considering where to attend school. In addition, the people variable also is important to prospective students. As online relationship marketing levels (admission professionals, current students, faculty, and alumni) rise, so does matriculation yield. This indicates that the “people” aspect of the institution, especially admission professionals, is a major factor in the college choice process. Price is the third variable that predicts matriculation yield; however, it is a negative predictor. As tuition decreases, matriculation yield increases. This highlights that financial considerations, such as tuition, play a major role in whether or not a student enrolls at a particular MBA program. Product was a statistically significant predictor of matriculation yield only for ranked programs. For matriculation yield, both traditional marketing mix factors and relationship marketing factors play key roles in the recruiting process.

Implications for Practice

This study revealed several findings that may be of interest to MBA program administrators as they examine application levels and matriculation yield. Recent surveys have found program quality and reputation, career prospects, financial aspects, and program personnel as key influencers of college choice (GMAC, 2012; Sevier, 2012). First, if MBA program administrators are attempting to improve application levels, they should focus the majority of their resources on the product, as this study revealed it is the only predictor of application levels. For this study, the researcher used national rankings, acceptance rates, student-to-faculty ratios, and 6-month employment rates as the product variable. If the MBA program is nationally ranked, these rankings must take on prominent positions in marketing

materials and on the program website. However, for many MBA programs, securing national rankings is an unrealistic venture, so they must focus on other product features that impact application levels. If a program already has a strong student-to-faculty ratio and employment rate, administrators must market those highlights to prospective students. If these ratios and rates are below average, it would behoove administrators to focus on strategies to strengthen these product features. In doing so, the MBA program could boost application levels.

If MBA program administrators are attempting to improve matriculation yield, they should focus their marketing strategies on price, place, and people. First, price (tuition) is a negative predictor, so as tuition declines, matriculation yield improves and vice versa. MBA program administrators should be acutely aware of this factor when considering annual tuition hikes. The 2012 GMAC Prospective MBA Student survey concluded that over 72% of prospective students have concerns about costs of an MBA and also highlighted that tuition increase is a sensitive issue that needs to be handled with careful consideration.

The people variable also was shown to be a significant predictor of matriculation yield. The values for this variable were based on the content analysis results of the five-level model of relationship marketing. Over 87% of prospective MBA students are using program websites as their primary source for information, and this study found that online relationship marketing is a predictor of matriculation yield. This highlights that relationship building is important in the recruiting process and that MBA program administrators should ensure their admission professionals are using such marketing in their recruiting strategies. In addition, it is essential that administrators allocate resources to the website, especially online relationship marketing. From online chats to videoconferencing, the program website must have various alternatives so that prospective students have the opportunity to connect with school

admission professionals, current students, faculty, and alumni. Based on the relationship marketing results, MBA programs must focus efforts on better promoting the people variable.

The place variable also was shown to be a predictor of matriculation yield when in the marketing mix model. As stated previously, this variable was calculated by assessing the opportunity for a prospective student to have access to residential living, a satellite campus, or online programs. This predictor indicates that if MBA programs have more delivery options, an admitted student is more likely to attend the institution. If residential living, satellite campuses, and online programs are not part of the strategic plan, MBA administrators should explore those opportunities, because the addition of one or more of these course delivery options may lead to an improved matriculation yield.

Finally, the five-level model of website relationship marketing data collection form (Figure 3.1) developed by the researcher can be used by MBA program administrators to assess their relationship marketing presence on their program websites. This is a functional tool that can not only indicate where the MBA program's relationship marketing levels compare to the competition but also assist in revealing where resources should be focused.

Recommendations for Future Research

Several recommendations are suggested for future research. This study focused on MBA programs; however, there are other types of graduate and professional schools that could benefit from a study similar in nature. In addition, undergraduate admission offices could take advantage of a similar study replicated for college choice factors of high school and transfer students.

This study assumes a program's online relationship marketing is reflective of the actual personalities and professional functions of school admission professionals, current

students, faculty, and alumni. A follow-up study, either quantitative and/or qualitative, researching the connections between online relationship marketing and actual personalities among the key institutional personal would be beneficial. Whether it is a survey, focus groups, or interviews, testing the strength of these associations would add to website relationship marketing literature.

In this study, the marketing mix model was utilized as the conceptual framework for predicting application levels and matriculation yield. Testing the model compared to other marketing models was outside the scope of this study. The 5Ps of marketing fit what the surveys were revealing about prospective MBA students; however, there might be an even better marketing model fit. Testing the marketing mix model, along with other models, among graduate programs would add to higher education marketing literature.

Promotion was the only variable of the 5Ps of marketing that was not shown to be a statistically significant predictor of either application levels or matriculation yield in the regression models. As stated previously in the limitations section, higher education marketing budgets are sensitive data that many institutions do not want to divulge. This secrecy makes promotion aspect extremely difficult to measure. In this study, the researcher used accessible operating budget data; however, somehow capturing actual marketing budgets would be tremendously beneficial. If gathered, a follow-up study would be warranted.

Finally, in addition to the quantitative components of this study, integrating qualitative features in future research could provide valuable information regarding factors in the recruiting process. Although this study used national surveys as a foundation for MBA choice factors, interviewing both prospective MBA students and key institutional personnel

would allow the researcher to collect data that may not be found in a survey. Information collected for interviews and focus groups might provide important data that could supplement the findings of this research.

Conclusion

This study examined the identified factors influencing application levels and matriculation yield of MBA programs. A content analysis was performed to assess relationship marketing levels of MBA program websites. The relationship marketing results and the traditional marketing mix variables were used as the influencing factors of MBA college choice, and then a multiple regression was used to predict which variables were statistically significant predictors of annual application levels and matriculation yield. Results indicated that the product variable was a strong predictor of application levels (overall, ranked, public, and private MBA programs). Unranked MBA programs was the only category of MBA programs for which the product variable was not a predictor of application levels. When MBA program administrators are tasked with increasing application levels, focusing on the product is more influential than adjusting price, increasing locations and promotion, and altering ways to connect faculty, staff, alumni, and current students to prospective students. The study highlights that factors such as national rankings, acceptance rates, employment statistics, and student-to-faculty ratios can positively influence increasing the number of applications MBA programs will receive on an annual basis.

The study also revealed that price, product, place, and people were strong predictors of matriculation yield. When reviewing all MBA programs, price, place, and people were predictors of matriculation yield. For ranked MBA programs, product and place were predictors, and for unranked programs, price, place, and people were predictors of

matriculation levels. When assessing public MBA programs, place was the only predictor, and for MBA programs at private institutions, people was the only predictor. When MBA administrators are tasked with increasing matriculation yield, they should focus more on tuition levels, national rankings, employment statistics, acceptance rates, the number of campus locations (main campus, satellites, online), and new and effective ways for influential personnel, such as admissions staff, faculty, alumni, and current students, to connect with prospective students. The study revealed that promotional aspects of the recruitment process were not as influential.

As discussed previously, the results of this study have important implications for MBA administrators looking for ways to reverse the national trend of declining numbers of applications. This study reveals that a strong product will draw in prospective students to apply to the MBA program, and that once students are admitted, price, product, place, and people will be the major influencing factors in college choice. Promotion is the only variable that was not a strong predictor of matriculation yield.

The overall findings of this research study reveal that the combination of the traditional marketing mix and relationship marketing conceptual frameworks can be utilized in marketing higher education and suggest that price, product, place, and people are all essential variables in the MBA admission and recruiting process.

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